# Usenet Newsgroup Archive: rec.radio.amateur.antenna

## 2004-10 - 2004-12

These Usenet messages were preserved as a plain-text archive. This PDF was generated by Digital Library of Amateur Radio & Communications from the source text file in 2026.

Date span: 2004-10-01 through 2004-12-31

Source text: rec.radio.amateur.antenna.txt

Source item: https://archive.org/details/usenet-rec

Messages included in this PDF: 4,442

Message records with no readable body available in the source text: 2

Messages are presented chronologically by archived date.

Binary or encoded payloads are not printed as blocks of encoded text; a placeholder appears where such material was detected. The original source text is unchanged.

## 1. Re: 18nH Inductor

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-01 00:04:58 UTC
From: k9sqg@aol.com
Message-ID: <20040930200458.08240.00001376@mb-m18.aol.com>
Source record: 88945

That is one small inductor...

## 2. Re: 18nH Inductor

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-01 00:07:35 UTC
From: Joe <nuisancewildlife@nospamearthlink.net>
Message-ID: <bd17d.6009$ls6.1366@newsread3.news.atl.earthlink.net>
Source record: 88946
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

"Paul Keinanen" <keinanen@sci.fi> wrote in message
news:unqol0l8k735fgfpo32s845o1edoujnvof@4ax.com...
> On Thu, 30 Sep 2004 19:56:34 GMT, "Joe"
> <nuisancewildlife@nospamearthlink.net> wrote:
>
> >I have been unable to find a source other than surface mount parts. Does
> >anyone know of a source for this size inductor, or know the formula that
I
> >would use to wind my own?
>
> "Wind" ?
>
> As a rule of thumb, a thin wire has an inductance about 1 nH/mm, so a
> straight wire about 18 mm long would have the required inductance. For
> a thicker wire, about 25-30 mm straight wire would be required. Even a
> single turn would increase the inductance quickly, so you would have
> to shorten the wire considerably.
>
> If 18 nH surface mount inductors exists, why not use them ? At least
> the inductance would be much predictable.
>
> Paul OH3LWR
>

Thanks Paul,

What do you mean by a thin wire? #20 magnet wire, #26?

Sounds like I can make my own and very easily, with just a 18mm length of
(not sure what size) wire.

Joe
KB1KVI

## 3. Re: 18nH Inductor

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-01 00:12:24 UTC
From: Joe <nuisancewildlife@nospamearthlink.net>
Message-ID: <lh17d.6015$ls6.5005@newsread3.news.atl.earthlink.net>
Source record: 88947
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

"John Smith" <kd5yikes@mindspring.com> wrote in message
news:5y_6d.3067$Yr.2732@newsread3.news.pas.earthlink.net...
>
> "Joe" <nuisancewildlife@nospamearthlink.net> wrote in message
> news:SxZ6d.5576$ls6.2629@newsread3.news.atl.earthlink.net...
> >I have been searching the catalogs for an 18nanohenry inductor to use in
> > conjunction with a Radiotronix RCR-433-RP Receiver and transmitter pair
> > for
> > a remote control I am working on. Radiotronix has an app note that shows
> > this inductor used with a couple of 8.2pf caps to get good
> > reception/transmission for their modules.
> >
> > I have been unable to find a source other than surface mount parts. Does
> > anyone know of a source for this size inductor, or know the formula
that
> > I
> > would use to wind my own?
> >
> > I am posting this to rec.radio.amateur.homebrew and
> > rec.radio.amateur.antenna
> >
> > TIA,
> >
> > Joe
> > KB1KVI
>
>
> A one inch length of #18 AWG wire is about 18 nH at VHF and above,
according
> to the ARRL Handbook, 2004 edition, page 10.10. The equation is:
>
> L = .00508b[ln(2b/a)-.75] where
>
> L is in uH
> b is length in inches
> a is wire radius in inches
> and change the .75 to 1 for VHF and above
>
> So, it kind of makes sense why they don't sell lead-mounted 18 nH
inductors.
> People would complain that they only got one lead, and it's a short lead
at
> that.

>
> If I were trying it, I'd try a one-turn loop of about 1/4 diameter with
> leads just long enough to solder into the circuit. Maybe all you need is a
> kinky piece of wire and adjust the kink to tune.
>
> Good luck,
> John (KD5YI)
>

Hi John,

Thanks for the info. Much more specific. I didn't realize I could make one from #18. I have the latest ARRL handbook, but maybe wasn't looking in the right place to see that info.

I don't have an inductance meter, so I am not sure how I would tune it. It is for 433.92MHz.

http://www.radiotronix.com/downloads/433_pair.pdf

The document is at the above address.

Thank you again,
Joe
KB1KVI

## 4. Re: 18nH Inductor

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-01 00:15:17 UTC
From: Joe <nuisancewildlife@nospamearthlink.net>
Message-ID: <pk17d.6019$ls6.4814@newsread3.news.atl.earthlink.net>
Source record: 88948
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:cji081$nq7$1@titan.btinternet.com...
> An 18 nano-henry inductor seems, to me, to be an impractical inductor
value.
> The length of the connecting wires will form an appreciable part of the
> inductance. There must be another way of acheiving the desired circuit
> functions.
>
> However, to find the length, diameter and number of turns to make such a
> small coil you can use program SOLNOID3 which can be downloaded in a few
> seconds, free of charge, and run immediately from the the website below.
> Try it and see what happens.
> ---
> ............................................................
> Regards from Reg, G4FGQ
> For Free Radio Design Software go to
> http://www.btinternet.com/~g4fgq.regp
> ............................................................
>

Thanks Reg,

I will download that program. It sounded kind of small to me too. I don't
use smd because I don't know how.

The link to the schematic is:
http://www.radiotronix.com/downloads/433_pair.pdf

Joe
KB1KVI

## 5. Re: 18nH Inductor

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-01 00:20:37 UTC
From: Joe <nuisancewildlife@nospamearthlink.net>
Message-ID: <pp17d.8983$Ki1.847@newsread2.news.atl.earthlink.net>
Source record: 88949
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

"Gregg" <nospam@unknown.org> wrote in message
news:a3%6d.496$223.176@edtnps89...
> Behold, John Smith signalled from keyed 4-1000A filament:
>
>
> > "Joe" <nuisancewildlife@nospamearthlink.net> wrote in message
> > news:SxZ6d.5576$ls6.2629@newsread3.news.atl.earthlink.net...
> >>I have been searching the catalogs for an 18nanohenry inductor to use in
> >> conjunction with a Radiotronix RCR-433-RP Receiver and transmitter pair
> >> for
> >> a remote control I am working on. Radiotronix has an app note that
> >> shows this inductor used with a couple of 8.2pf caps to get good
> >> reception/transmission for their modules.
> >>
> >> I have been unable to find a source other than surface mount parts.
> >> Does anyone know of a source for this size inductor, or know the
> >> formula that I
> >> would use to wind my own?
> >>
> >> I am posting this to rec.radio.amateur.homebrew and
> >> rec.radio.amateur.antenna
> >>
> >> TIA,
> >>
> >> Joe
> >> KB1KVI
> >
> >
> > A one inch length of #18 AWG wire is about 18 nH at VHF and above,
> > according to the ARRL Handbook, 2004 edition, page 10.10. The equation
> > is:
> >
> > L = .00508b[ln(2b/a)-.75] where
> >
> > L is in uH
> > b is length in inches
> > a is wire radius in inches
> > and change the .75 to 1 for VHF and above
> >
> > So, it kind of makes sense why they don't sell lead-mounted 18 nH
> > inductors. People would complain that they only got one lead, and it's a
> > short lead at that.
>

> Yes! Digi-Key.com does sell SMD inductors that small, but not leaded.
>
> --
> Gregg t3h g33k
> "Ratings are for transistors....tubes have guidelines"
> http://geek.scorpiorising.ca

Mouser sells them too, but I don't know how to work with surface mounted parts.

Thanks,
Joe
KB1KVI

## 6. Re: NEWS - Researchers invent antenna for light

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-01 00:20:57 UTC
From: Gods - nothing but gods !! <Hello030398734@Hotmail.com>
Message-ID: <415ca2eb@post.usenet.com>
Source record: 88950

**** Post for FREE via your newsreader at post.usenet.com ****

"Fractenna"
> (Inventor) Bob's (W1XYZ) patents on this form
> a basis for ownership on such varieties of antennas,
> within the construct of the claims. That is my opinion.

That's a hollow 'motherhood' statement - no one could disagree with that because your statement doesn't actually say anything (except to partially define the word 'patent').

Back to The Question:

As you well know, a patent doesn't necessarily mean that anything functional has actually been built. This is self-evident by the numerous US patents for the impossible (or for the presently impossible). I was NOT asking about patents, I asked (quite clearly I might add) if anyone had actually built the subject item at the subject scale before the subject CNN news item.

It is a very simple question.

CNN story (they were first) true or false?

> ...the assignee of the patent is what's important.

That assumes that there is any money to be made from it within the term. I believe that something like 99.99+% of all patents are money losing propositions. They're apparently a worse investment on average than lottery tickets.

> ...wouldn't hurt to give the man some well-deserved credit.

Of course.

The CNN story claimed that those people were first. All the RRAA 'harbour seals' starting barking that it was old news - most of them just didn't read the story carefully. Now W1XYZ drops by with his patent portfolio but didn't answer the very simple question - who actually made one first (which is where this long thread started).

It is a very simple question.

Not patents.

Who made one first?

CNN guys or W1XYZ or anyone else?

So far - no one has provided anything to prove the CNN story was incorrect.

Thanks for playing.

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## 7. Re: half-wave dipole in the forest

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-01 00:28:13 UTC
From: "aunwin@insightbb.com"
Message-ID: <xw17d.182319$3l3.42035@attbi_s03>
Source record: 88951

"Energy sources" !
What is the total length of pipe lines involved with oil in the MidEast?
Using 24/7 time lines does America have enough troops or reservists to
position every 100 yards
to prevent tampering ? The largest user of oil has the economy that goes
down the fastest while
the supplier only needs enough for cooking. If 'push comes to shove' what
would be the result
of that scenario ? Listen to the debate tonight and hear what the
candidates have to say about that.
General Electric is ahead of the game by buying up the majoratory of
railroad cars in the U.S.for
shipping goods by rail like Europe in the event of oil problems Just look
at any highway to measure
the trucking industry dependance on fuel and then estimate the time and
expense needed to replace
the highways with rail tracks. Maybe we should learn to live with people
with religeons different
from our own and force a return of the holy places that have been stolen
from them.
Bush authorised more building on the West Bank stating it will be difficult
to remove them once
they have built their homes. This said regardless of the thoughts of the
rest of the World who we hope to
ask to come and help us and kill all those who have the temererity to resist
the land take over.
Do we in the U.S. have to wait for hindsight to determine whether it is
possible to turn a corner when
all are in a free fall mode without the provision of allies to hold a safety
net?

Art

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:cji119$b1k$1@hercules.btinternet.com...
> For "Weapons of Mass Destruction" read "Multi-nationals", "Wall Street",
> "Energy Resources", "CIA", "Pentagon" and "N.American Branch of the
Mafia".
> Bush and Blair just obey instructions.
>
> Lord help us!
>
>

## 8. Re: Rohn tower as vertical

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-01 01:01:23 UTC
From: N9EFJ <the2x4@bellsouth.net>
Message-ID: <7_17d.3698$DV3.3543@bignews5.bellsouth.net>
Source record: 88952

What effect would explain the " better for DX"?
Less Noise - Increased signal - Both?

Also what frequency did your tower resonate at?

Getting ready to try the shunt fed tower thing here
on 80.

N9EFJ

"Larry Gauthier (K8UT)" <MyCallsign@ARRL.NET> wrote in message
news:10lnukgpsf89lf6@corp.supernews.com...
> Terry, I have both vertical (shunt fed tower) and horizontal (loops,
> dipoles) antennas for 40, 80, and 160 -- and find that the dipoles work
> better for the local QSOs and the verticals work better for DX. Do
whatever
> you can to get the tower as high as possible. My son had an old CB 102">

## 9. Re: 18nH Inductor

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-01 02:33:14 UTC
From: John Smith <kd5yikes@mindspring.com>
Message-ID: <KI37d.14328$gG4.12002@newsread1.news.pas.earthlink.net>
Source record: 88953
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

"Joe" <nuisancewildlife@nospamearthlink.net> wrote in message
news:Ih17d.6015$ls6.5005@newsread3.news.atl.earthlink.net...
>
> "John Smith" <kd5yikes@mindspring.com> wrote in message
> news:5y_6d.3067$Yr.2732@newsread3.news.pas.earthlink.net...
>>
>> "Joe" <nuisancewildlife@nospamearthlink.net> wrote in message
>> news:SxZ6d.5576$ls6.2629@newsread3.news.atl.earthlink.net...
>> >I have been searching the catalogs for an 18nanohenry inductor to use in
>> > conjunction with a Radiotronix RCR-433-RP Receiver and transmitter pair
>> > for
>> > a remote control I am working on. Radiotronix has an app note that
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>> > this inductor used with a couple of 8.2pf caps to get good
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>> > I am posting this to rec.radio.amateur.homebrew and
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>> >
>> > TIA,
>> >
>> > Joe
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>>
>> A one inch length of #18 AWG wire is about 18 nH at VHF and above,
> according
>> to the ARRL Handbook, 2004 edition, page 10.10. The equation is:
>>
>> L = .00508b[ln(2b/a)-.75] where
>>
>> L is in uH
>> b is length in inches
>> a is wire radius in inches
>> and change the .75 to 1 for VHF and above
>>

>> So, it kind of makes sense why they don't sell lead-mounted 18 nH
> inductors.
>> People would complain that they only got one lead, and it's a short lead
> at
>> that.
>>
>> If I were trying it, I'd try a one-turn loop of about 1/4 diameter with
>> leads just long enough to solder into the circuit. Maybe all you need is
>> a
>> kinky piece of wire and adjust the kink to tune.
>>
>> Good luck,
>> John (KD5YI)
>>
>
>
> Hi John,
>
> Thanks for the info. Much more specific. I didn't realize I could make one
> from #18. I have the latest ARRL handbook, but maybe wasn't looking in
> the
> right place to see that info.
>
> I don't have an inductance meter, so I am not sure how I would tune it. It
> is for 433.92MHz.
>
> http://www.radiotronix.com/downloads/433_pair.pdf
>
> The document is at the above address.
>
> Thank you again,
> Joe
> KB1KVI

Hi, Joe -

You won't tune it with an inductance meter. You could try constructing one of those RF millivoltmeters in the ARRL manual and reading the voltage across a (leadless) 50 Ohm output resistor. Then try kinking your wire (inductor) to see if you can tune it that way.

I strongly recommend you get a copy of "The ARRL UHF/Microwave Experimenter's Manual" and read it like there is no tomorrow. It will open your eyes about things that happen to wires at 434 MHz. For example, if you've made a few calculations, you may have discovered that an 18 nH inductor has a reactance of almost 50 Ohms at 434 MHz. That's why you are told to have no leads on components at that frequency. Have you seen a 440 MHz power amplifier? You will notice the absence of many inductors and capacitors compared to lower frequency amplifiers. That's because they use a few inches of PCB material to make inductors, capacitors, transmission lines.

If they did make leaded 18 nH inductors, how long would the leads be? If you purchase an 18 nH SMD inductor and put two 1/4 inch long #22 AWG wires on it, you will then have a 27 nH inductor. That doesn't solve your problem.

Your problem at 434 MHz will be that every component (with leads) that you add, you will also add several nH of inductance if your leads are longer than .1 inches or so.

If you analyze the receiving network, you will see that, if the antenna is 50 Ohms, the receiver sees 50 Ohms. So the network appears to simply be a filter. I would loose the receiver PI network, for sure. I think the transmitter is similar.

If it were me, I would forget both PI networks and even forget the pad on the transmitter. Put a cotton pickin' 6.8 inch antenna on the module and try it. Arrange your module so the antenna can be attached directly to the pin of the module, if possible.

Or, do these transmitters require the PI network to stay within FCC limits?

Anyway, good luck.

John

## 10. Re: 18nH Inductor

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-01 02:33:16 UTC
From: John Smith <kd5yikes@mindspring.com>
Message-ID: <MI37d.14329$gG4.2939@newsread1.news.pas.earthlink.net>
Source record: 88954
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

"Joe" <nuisancewildlife@nospamearthlink.net> wrote in message
news:Ih17d.6015$ls6.5005@newsread3.news.atl.earthlink.net...
>
> "John Smith" <kd5yikes@mindspring.com> wrote in message
> news:5y_6d.3067$Yr.2732@newsread3.news.pas.earthlink.net...
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>> and change the .75 to 1 for VHF and above
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>>
>> Good luck,
>> John (KD5YI)
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> Hi John,
>
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> right place to see that info.
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> I don't have an inductance meter, so I am not sure how I would tune it. It
> is for 433.92MHz.
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> http://www.radiotronix.com/downloads/433_pair.pdf
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> Joe
> KB1KVI

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If it were me, I would forget both PI networks and even forget the pad on the transmitter. Put a cotton pickin' 6.8 inch antenna on the module and try it. Arrange your module so the antenna can be attached directly to the pin of the module, if possible.

Or, do these transmitters require the PI network to stay within FCC limits?

Anyway, good luck.

John

## 11. Re: 18nH Inductor

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-01 02:42:33 UTC
From: Rick Karlquist N6RK <richard@karlquist.removethis.com>
Message-ID: <su37d.145195$MQ5.126691@attbi_s52>
Source record: 88955
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

Thru hole inductors were traditionally calibrated so that the inductance met
spec with 1/2 inch total length including leads, and not over a ground
plane. The smallest value of thru hole inductor I have ever seen is
27 nH. The true inductance (without the leads) of this inductor is
probably around 18 nH or less. Also, the inductance of thru hole
inductors typically drops about 5% over a ground plane.

You're probably better off winding your own air core inductor
and tweak it until your circuit is tuned where you want it.

Rick N6RK

"Joe" <nuisancewildlife@nospamearthlink.net> wrote in message
news:SxZ6d.5576$ls6.2629@newsread3.news.atl.earthlink.net...
> I have been searching the catalogs for an 18nanohenry inductor to use in

## 12. Re: 18nH Inductor

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-01 03:05:30 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <avhpl0hns2sobhsr3j8v6i3kipppeccd1e@4ax.com>
Source record: 88956
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

On Fri, 01 Oct 2004 02:33:14 GMT, "John Smith"
<kd5yikes@mindspring.com> wrote:

>Or, do these transmitters require the PI network to stay within FCC limits?

Hi John,

In the old days, this question use to appear on the FCC's serious
tests - also required math too.

You already demonstrated as much with:
>If you analyze the receiving network, you will see that, if the antenna is
>50 Ohms, the receiver sees 50 Ohms. So the network appears to simply be a
>filter.
that meets the minimum technical requirment for coupling. All that
remains is the technical in-band/out-band issues (which segue into the
legal issues).

73's
Richard Clark, KB7QHC

## 13. Re: 18nH Inductor

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-01 03:57:28 UTC
From: John Smith <kd5yikes@mindspring.com>
Message-ID: <IA47d.3487$Yr.1532@newsread3.news.pas.earthlink.net>
Source record: 88957
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:avhpl0hns2sobhsr3j8v6i3kipppeccd1e@4ax.com...
> On Fri, 01 Oct 2004 02:33:14 GMT, "John Smith"
> <kd5yikes@mindspring.com> wrote:
>
>>Or, do these transmitters require the PI network to stay within FCC
>>limits?
>
> Hi John,
>
> In the old days, this question use to appear on the FCC's serious
> tests - also required math too.
>
> You already demonstrated as much with:
>>If you analyze the receiving network, you will see that, if the antenna is
>>50 Ohms, the receiver sees 50 Ohms. So the network appears to simply be a
>>filter.
> that meets the minimum technical requirment for coupling. All that
> remains is the technical in-band/out-band issues (which segue into the
> legal issues).
>
> 73's
> Richard Clark, KB7QHC

I don't understand what you're driving at here, Richard. I'm saying that an analysis of the PI network shows that it serves no "matching" purpose if the antenna is 50 Ohms and the receiver wants to see 50 Ohms. Its only purpose seems to be to provide a narrow bandwidth. Does the receiver need it? Probably not, unless there are a other transmitters in near by operating on an adjacent frequency.

As for the transmitter, perhaps it needs a filter, perhaps not. But, is a PI sufficient to meet any regulations if it does require a filter? Does the transmitter not meet the regulations without it? I remember hearing that these transmitters use SAW devices. Aren't SAW devices filters? All I'm saying is that, if you can meet the FCC rules without the PI filter, you don't need the filter at all.

73,
John

## 14. Re: 18nH Inductor

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-01 04:04:31 UTC
From: John Smith <kd5yikes@mindspring.com>
Message-ID: <jH47d.3490$Yr.3307@newsread3.news.pas.earthlink.net>
Source record: 88958
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

"Rick Karlquist N6RK" <richard@karlquist.removethis.com> wrote in message
news:su37d.145195$MQ5.126691@attbi_s52...
> Thru hole inductors were traditionally calibrated so that the inductance
> met
> spec with 1/2 inch total length including leads, and not over a ground
> plane. The smallest value of thru hole inductor I have ever seen is
> 27 nH. The true inductance (without the leads) of this inductor is
> probably around 18 nH or less. Also, the inductance of thru hole
> inductors typically drops about 5% over a ground plane.
>
> You're probably better off winding your own air core inductor
> and tweak it until your circuit is tuned where you want it.
>
> Rick N6RK
>
>
> "Joe" <nuisancewildlife@nospamearthlink.net> wrote in message
> news:SxZ6d.5576$ls6.2629@newsread3.news.atl.earthlink.net...
>> I have been searching the catalogs for an 18nanohenry inductor to use in
>

Has anybody checked the inductance of a zero Ohm resistor (versus lead
length)?

John (KD5YI)

## 15. Re: 18nH Inductor

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-01 04:58:03 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <0jmpl05ssl3npurooailp6j2g08o13885c@4ax.com>
Source record: 88959
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

Hi John

SAW, surface acoustic wave, filters are not transmitter pass filters.

As for the need, that is simple: OF COURSE it needs filtering. Simply observing the manufacturer's requirements reveals that:
>In most cases, the output of the transmitter may need a low-pass LC filter to reduce harmonic emissions.
As for matching:
>The output of the oscillator is derived directly from the collector of the oscillator transistor. It is, therefore, very sensitive to VSWR.
This, alone, demands filtering to reduce harmonics.

As for SAW filters. It has one, and uses it in the conventional manner (not as an output filter) for frequency determination in the oscillator.

73's
Richard Clark, KB7QHC

## 16. Re: half-wave dipole in the forest

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-01 05:48:07 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cjir2n$hs9$1@sparta.btinternet.com>
Source record: 88960

"Jack Painter" <223bthp@cox.net> wrote in message
news:Tlp5d.5311$%t3.3227@lakeread01...
>
> "Harold E. Johnson" <W4ZCB@mchsi.com> wrote
>
> >
> > > Witness the mess in ex-Yugoslavia, Iraq, Palestine, Afganistan and
> > numerous
> > > other places in this small world.
> >
> > Well Reg, I'd argue the point, but recognize the futility. Please
observe
> > however, in the countries listed above, which were the ones with English
> > masters in the first place? Your forbearers have a lot to answer for and
> > even in those closer to YOUR home, Scotland and Ireland.
> >
> > W4ZCB
> >
>
> Good start Harold! Allow me to pick up with it from there....
>
> Reg, you also wrote:
>
> "But of course, it is not the ordinary American people who are to blame,
it
> is just their multi-national corporations, their dishonest banks, their
oil
> and energy companies, their pharmaceuticals, their tobacco and junk food
> industries, atmospheric polution, the armament industries, and the secret
> police, the 'unreliable' CIA information departments, etc., which
constitute
> the problem."
>
> (first of all *thanks* for your personal absolution, we're relieved) <G>.
> But we should remind you that "our multi-national corporations" is a
> misnomer - they are, as you said, multi-national. Want to guess who is the
> biggest investor in US interests? Great Britain is, so they are "yours"
old
> boy. And wasn't it M7 or some James Bond agency of yours that claimed
there
> was a definite link to WMD/nuclear materials by Iraq? I know, you tell us
> all the time, it's George & Tony's fault, they made this stuff up at their
> supper club meetings. I know this is kind of unsettling for a fine chap as
> we know you are, but the next time you think America has some knd of

> monopoly on gun-toting, punked-out, drugged-out losers that actually
manage
> to "vote" sometimes (always liberal just like you buddy), just check your
> London papers nce and awhile, and better yet, stroll downtown. My
> recollection is that London is just like NYC, NY, with a little bit of
> everything at any corner. As Harold said, God forbid you take that same
> stroll of exploration down an Ulster street during one of the little
> flare-ups of "the troubles". Even your police and your army riding in
armor
> vehicles are not safe then - on your God-save-the-Queen Great Britain
> streets in broad daylight. My point is that in your own country you've got
> some of the most hideous examples of human behavior found anywhere in the
> world, even if you haven't chopped heads of (yet - your skyrocketing
muslim
> populaton cannot be far behind that plan). But most of us would argue that
> the begging-for-death tortures perpetrated on victims of your "troubles"
> might have been better off dead than suffered the circumstances of your
> british honour among terrorists.
>
> 73,
>
> Jack Painter
> Virginia Beach VA
==========

Tongue-in-cheek, Jack,

There's no need to tell ME what the British are like.

After 79 years I know!

It's just that YOU are better at it than we EVER were.

But, 8 years too late, WE are now taking care of puppy-dog Tony.

Just make sure YOU do likewise with George.

And we will BOTH get on fine with each other.

Only three more to sort out - Teheran, Pyongyang and finally Beijing.

Your Coalition and Tea Party Colleague -
---
Reg.

## 17. Re: longer antenna for a Cell phone

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-01 07:02:01 UTC
From: Bob Bob <bcnntp@optusnet.com.au>
Message-ID: <90cv22-rpm.ln1@p400bob.lse.com.au>
Source record: 88961

Tnks Mikie

Mikie wrote:
> Cell phone is -2 to -10 dB average down from 1/2 wave and the pattern is
> very splintered.
> The antenna resonates with parts inside the case and users arm.
> Longer antenna is defiantly better, IF it is resonate.
> If you get aftermarket, it may not be.
> Has to be designed for that particular cellphone.

## 18. Re: half-wave dipole in the forest

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-01 07:06:33 UTC
From: richardharrison@webtv.net
Message-ID: <9790-415D01F9-379@storefull-3257.bay.webtv.net>
Source record: 88962

Reg Edwards, G4FGQ wrote:
"For "Weapons of Mass Destruction" read "Multi-nationals", "Wall Street", Energy Resources", "CIA", "Pentagon" and "N.American Branch of the Mafia". Bush and Blair just obey instructions."

Old adage: "He who pays the piper, calls the tune." In democracies, politicians spend fortunes from donors to get elected. The donors make sure they are credited with their campaign contributions, which they say are only given to the politicians so that the donor`s side of critical issues gets a fair hearing in the legislature, or from the administration, or whatever.

I guess Reg`s point is that his list of items contains some of the real causes of the war in Iraq, not "Weapons of Mass Destruction", the reason given at the time of the invasion. I think Bush and Blair really believed they would find stockpiles of WMD in Iraq. Otherwise, why would Saddam not cooperate eagerly with the U.N. weapons inspectors? A reasonable person with a gun poked in his ear complies with the demands of his assailant. Only Jack Benny, an American frugal comedian when urged to decide if it were going to be his money or his life, responded with: "I`m thinking, I`m thinking!

For Saddam, being jailed and dispossessed of all those lovely palaces is surely worse than the presence of foreign inspectors is, a challenge to his sovereignty, which he lost too. He could also lose his life. He had to think nobody would come after him.

Just shows what happens when you have crazy people on both sides of a confrontation.

Best regards, Richard Harrison, KB5WZI

## 19. Re: 18nH Inductor

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-01 07:21:35 UTC
From: Paul Keinanen <keinanen@sci.fi>
Message-ID: <j90ql0h9qeommlk25fm06vhk1s7aeg7f6e@4ax.com>
Source record: 88963
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

On Fri, 01 Oct 2004 00:20:37 GMT, "Joe"
<nuisancewildlife@nospamearthlink.net> wrote:

>Mouser sells them too, but I don't know how to work with surface mounted
>parts.

Since the inductor is only a two "pin" component and assume you have
two PCB tracks at a suitable distance from each other, soldering
should not be a problem even without SMD experience. Using a toothpick
or some other device to keep the component steady, first solder one
end, let it cool for awhile and then solder the other end.

By the way, what type of capacitor are you using for that 8 pF ? If it
is a leaded component, it might have quite a few nH of wire
inductance. In addition to the SMD inductor, I would also recommend a
SMD capacitor, since these have a lower self inductance. Soldering it
close to the inductor should not be any harder.

I suggest that you buy some cheap SMD resistors or capacitors with the
same size package as the inductor or capacitor you are going to use
and solder these to a Vero 0.1" strip board to get some confidence in
SMD soldering, before installing the real components into the module.

Paul OH3LWR

## 20. Re: longer antenna for a Cell phone

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-01 08:57:20 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cjj65g$9bl$1@titan.btinternet.com>
Source record: 88964

It also helps if you mount the gadget on a broom-stick and hold it at arm's length well above your head.

But you then need an extension lead for an earphone. You also have to shout loud.
----
Reg.

## 21. Re: Rohn tower as vertical

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-01 09:46:40 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0410010146.c58810c@posting.google.com>
Source record: 88965

"N9EFJ" <the2x4@bellsouth.net> wrote in message
news:<7_17d.3698$DV3.3543@bignews5.bellsouth.net>...
> What effect would explain the " better for DX"?
> Less Noise - Increased signal - Both?

The angles used for low band dx are very low in general. Below 10
degrees.
So naturally, you want an antenna that favors the lower angles, rather
than a cloudwarmer that favors many of them. Or even worse, straight
up. At night on 40m, my 10 ft mobile antenna is stronger 1000 miles
away, than my dipole here at the house which is about 40 ft up. The
mobile whip is much less efficient, but what power it does radiate, is
at the perfect angle for the path I'm working.
As far as the original poster, I'd use either the HF2V as a ground
plane, with elevated radials, or I'd extend the mast and run inv L's.
But I'm almost positive that the GP would smoke the inv L on 40m. Even
with as few as 4 radials. I've run the same antenna on 40m, and it
worked great. But on 80m, he would need double the radials, to equal
the same efficiency on 40m, not counting loading losses. Also, just
guessing , but I bet the lack of success with it the last two winters
was due to a lack of radials...You need a lot if ground mounted. Well,
unless you like a mediocre signal...:/ If he had 10 radials, elevated
at 32 or so ft, on 80m with that HF2V, I think it would work quite
well. They can slope down to the ground, but don't let them touch.
Probably better than anything else mentioned, being as the current is
elevated up off the ground. As far as radials, you should always think
in terms of wavelength off the ground. For the same height, the needed
number increases the lower in freq you go, for a certain efficiency.
On 40m, at 32 ft , it's a 1/4 wave up. At that height, 4 radials
equals about 60 on the ground.
But on 80m, it will only be an 1/8 wave up. So 4 radials would only
equal about 32 on the ground. And some will differ, but I find 32
radials on the ground to be fairly mediocre. And my ground is pretty
good as far as ground goes. Once you get to the equal of about 60
radials on the ground, it will really start to play. Or that's what I
notice. Yes, in theory, the difference should be small, but in the
real world it seems a quite noticable increase to me. MK

## 22. Re: half-wave dipole in the forest

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-01 12:00:56 UTC
From: "H. Adam Stevens, NQ5H" <NQ5H@ARRL.net>
Message-ID: <10lqhp64p4oencc@corp.supernews.com>
Source record: 88966

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:cjir2n$hs9$1@sparta.btinternet.com...
>
> "Jack Painter" <223bthp@cox.net> wrote in message
> news:Tlp5d.5311$%t3.3227@lakeread01...
> >
> > "Harold E. Johnson" <W4ZCB@mchsi.com> wrote
> >
> > >
> > > > Witness the mess in ex-Yugoslavia, Iraq, Palestine, Afganistan and
> > > numerous
> > > > other places in this small world.
> > > >
> > > Well Reg, I'd argue the point, but recognize the futility. Please
> observe
> > > however, in the countries listed above, which were the ones with
English
> > > masters in the first place? Your forbearers have a lot to answer for
and
> > > even in those closer to YOUR home, Scotland and Ireland.
> > >
> > > W4ZCB
> > >
> >
> > Good start Harold! Allow me to pick up with it from there....
> >
> > Reg, you also wrote:
> >
> > "But of course, it is not the ordinary American people who are to blame,
> it
> > is just their multi-national corporations, their dishonest banks, their
> oil
> > and energy companies, their pharmaceuticals, their tobacco and junk food
> > industries, atmospheric polution, the armament industries, and the
secret
> > police, the 'unreliable' CIA information departments, etc., which
> constitute
> > the problem."
> >
> > (first of all *thanks* for your personal absolution, we're relieved)
<G>.
> > But we should remind you that "our multi-national corporations" is a
> > misnomer - they are, as you said, multi-national. Want to guess who is
the

> > biggest investor in US interests? Great Britain is, so they are "yours"
> old
> > boy. And wasn't it M7 or some James Bond agency of yours that claimed
> there
> > was a definite link to WMD/nuclear materials by Iraq? I know, you tell
us
> > all the time, it's George & Tony's fault, they made this stuff up at
their
> > supper club meetings. I know this is kind of unsettling for a fine chap
as
> > we know you are, but the next time you think America has some knd of
> > monopoly on gun-toting, punked-out, drugged-out losers that actually
> manage
> > to "vote" sometimes (always liberal just like you buddy), just check
your
> > London papers nce and awhile, and better yet, stroll downtown. My
> > recollection is that London is just like NYC, NY, with a little bit of
> > everything at any corner. As Harold said, God forbid you take that same
> > stroll of exploration down an Ulster street during one of the little
> > flare-ups of "the troubles". Even your police and your army riding in
> armor
> > vehicles are not safe then - on your God-save-the-Queen Great Britain
> > streets in broad daylight. My point is that in your own country you've
got
> > some of the most hideous examples of human behavior found anywhere in
the
> > world, even if you haven't chopped heads of (yet - your skyrocketing
> muslim
> > populaton cannot be far behind that plan). But most of us would argue
that
> > the begging-for-death tortures perpetrated on victims of your "troubles"
> > might have been better off dead than suffered the circumstances of your
> > british honour among terrorists.
> >
> > 73,
> >
> > Jack Painter
> > Virginia Beach VA
> ==========
>
> Tongue-in-cheek, Jack,
>
> There's no need to tell ME what the British are like.
>
> After 79 years I know!
>
> It's just that YOU are better at it than we EVER were.
>
> But, 8 years too late, WE are now taking care of puppy-dog Tony.
>

> Just make sure YOU do likewise with George.
>
> And we will BOTH get on fine with each other.
>
> Only three more to sort out - Teheran, Pyongyang and finally Beijing.
>
> Your Coalition and Tea Party Colleague -
> ----
> Reg.
>
>
Reg
There are enough reasonable people in Iran and China that they can
come along on their own if enough are smart and all are lucky.
I've had students from both countries and they were quite bright and
rational.
Pyongyang is problematic and our own fault. Should have finished it in '53.
73
H.

## 23. Re: NEWS - Researchers invent antenna for light

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-01 12:09:08 UTC
From: fractenna@aol.com
Message-ID: <20041001080908.03232.00001212@mb-m19.aol.com>
Source record: 88967

The patent is the only thing that matters in such new technology.

That's what makes Bob a 'player'.

He's a real person with a real patent. And, by golly, he has a real e-mail!

BTW, here's today's trivia question.

Carbon 14 dating is a mainstay for setting ages of things a few thousands of
years old.

Who--invented--it?

a) Isaac Asimov
b) Harold Urey
c) Linus Pauling
d) Louis Leakey

Not a trick question.

Any 'players'?

73,
Chip N1IR

## 24. Re: 18nH Inductor

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-01 12:26:32 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cjjido$nhl$1@sparta.btinternet.com>
Source record: 88968
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

For anyone interested in what an 18 nano-H inductor looks like under a magnifying glass -

3 turns of 0.33 mm diameter wire, wound on a 2.2 mm diameter former, over a length of 2.0 mm.

Its self-resonant frequency is 4.6 GHz and it is tuned to 1 GHz with a capacitor of 1.3 pF. Q = 330 at 1 GHz.
----
Reg

## 25. Re: Superskyhooks antenna scam

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-01 12:53:23 UTC
From: Steveo <moparholic@hotmail-nospam.com>
Message-ID: <20041001085323.097$PM@newsreader.com>
Source record: 88970
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

What, the felonies and history of repeater jamming? Doubt it.

"KC8QJP" <KC8QJP@crisco.net> wrote:
> hey hunny does brian know about our colorful past? wink wink nudge nudge
> say no more.................
> N8WWM "Psychiatrist to keyclowns" <keyklonzrnutjobs@yahoo.com> wrote in
> >message news:586e7bbf.0409301532.e6bd8da@posting.google.com...
> >I Am Not Ice <iamnotice@google.com> wrote in message
> >news:<1096569501.iOzSjgD8Gx4ggh749kzblw@teranews>...
> >> On 30 Sep 2004 08:40:31 -0700, keyklonzrnutjobs@yahoo.com
> >> (Psychiatrist to keyclowns) wrote:
> >>
> >> >Steveo <moparholic@hotmail-nospam.com> wrote in message
> >> >news:<20040929225341.399$YF_-_@newsreader.com>...
> >> >> Steveo <moparholic@hotmail-nospam.com> wrote:
> >> >> > dougadairbuster@aol.com (DougAdairBuster) wrote:
> >> >> > > >Subject: And who is sadie106@juno.com?
> >> >> > > >From: I Am Not Ice iamnotice@google.com
> >> >> > > >Date: 9/28/2004 1:13 PM Central Daylight Time
> >> >> > > >Message-id: <1096395212.mTA0qJibIRH5CRZWmzKUtQ@teranews>
> >> >> > > >
> >> >> > > >
> >> >> > > >
> >>
> >> >> > That would be Dougay Adair.
> >> >> > >
> >> >> > Yep, his superskyhooks antenna scam got ran. ::chuckle::
> >> >
> >> >See mopeadopes brain!
> >> >
> >> >http://www.geocities.com/mopeadopezbrain/index.html?1096389112170
> >> >
> >> >Uh huh. That's why over 100 ebay purchasers said they loved it.
> >> >That's why they sell out at hamfests. That's why word of mouth alone
> >> >keeps us busy at the shop.
> >> >That's why 4 different people now have 6 meter VUCC with this
> >> >particular antenna. That's why Brian, the original builder, endorses
> >> >it.
> >> >
> >> >http://www.uksmg.org/longwire.htm
> >> >
> >>
> >> Guess thats why you gave Brian credit for his idea?

> >>
> >> You even went so far as to steal his drawing and include it for your
> >> write up for the TMRA Amateur Radio Beacon.
> >>
> >> http://tinyurl.com/4ypeg
> >>
> >> Why didn't you give him any credit?
> >
> > We personally corresponded about the idea. He's happy with the way
> > things are. Also, a copy of the page on UKSMG goes on the disk with
> > the instructions that goes out with every one of 'em. Just because you
> > clowns don't see it don't mean it aint so. I did not write it up for
> > TMRA, by the way. I am not aware that it is there, or at least wasn't
> > until now. I am not and have not been a member of TMRA since about
> > 1993 or 1994, so I don't get the newsletter. Also, I am quite certain
> > the Brian approves of my exploitation of the idea. If you would like
> > to know you can always write him a letter, which I know would be
> > replied to with his ringing approval. The antenna works great, and I
> > am one of the 4 people who got VUCC on 50mhz in SSB mode with this
> > unit. (see page 81, August QST)
> > Next, doing it with 5 watts on PSK31. Then with 10 watts on CW. That
> > oughta keep me busy for a while.
> >
> > Also, in the May QST "World Above 50 mhz" section, W3ZZ mentioned my
> > antenna and included the link to the UKSMG page, which I supplied him.
> > I think putting that in an internationally read magazine gave credit
> > where it was due.
> >
> > As for any particular uniqueness of the antenna, not really. People
> > have used these for a long time with other feedpoint impedence
> > transforming methods. The matching unit Brian originally did is not
> > weatherproof at all and used mica interlaced trimmer caps. This unit
> > is a redesign of the physical makeup, using Johnson Air variables and
> > a weather resistant box.
> >
> > As for TMRA, that's a definite "what gives?" situation. I'll ask about
> > it for sure. Not that it bothers me, or would bother Brian either.
> > Pics coulda been taken off my ebay site too. I just flat don't
> > remember cuz so many people have asked, emailed, called, and ordered
> > the thing. Nothing succeeds like success, and that's a real decent
> > antenna to start out with.
> >
> > You assume a lot for someone who does not know what he is talking
> > about.

--
John Kerry honored by commies -
http://tinyurl.com/3cncy

## 26. Re: half-wave dipole in the forest

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-01 12:54:17 UTC
From: Dave <noone@nowhere.com>
Message-ID: <t5udnTh-j7nnzsDcRVn-oQ@crocker.com>
Source record: 88969

```
if there is a half-wave dipole in the forest and the radio is off becuase
the user is busy trying to model it and discuss it on the internet does
anyone hear it?
```

## 27. Re: half-wave dipole in the forest

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-01 13:21:05 UTC
From: "aunwin@insightbb.com"
Message-ID: <5Rc7d.288279$mD.232520@attbi_s02>
Source record: 88821

> >
> Reg
> There are enough reasonable people in Iran and China that they can
> come along on their own if enough are smart and all are lucky.
> I've had students from both countries and they were quite bright and
> rational.
> Pyongyang is problematic and our own fault. Should have finished it in
'53.
> 73
> H.
>
>

And how would we have done that?
Surely not the Goldwater method !
Art

## 28. Re: NEWS - Researchers invent antenna for light

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-01 14:03:05 UTC
From: Wes Stewart <n7ws_@_yahoo.com>
Message-ID: <7ooql0l2c4dfifra4v0nrvgptnik8ugqo0@4ax.com>
Source record: 88822

```
On 01 Oct 2004 12:09:08 GMT, fractenna@aol.com (Fractenna) wrote:

|The patent is the only thing that matters in such new technology.
|
|That's what makes Bob a 'player'.
|
|He's a real person with a real patent. And, by golly, he has a real e-mail!
|
|BTW, here's today's trivia question.
|
|Carbon 14 dating is a mainstay for setting ages of things a few thousands of
|years old.
|
|Who--invented--it?
|
|a) Isaac Asimov
|b) Harold Urey
|c) Linus Pauling
|d) Louis Leakey

e) none of the above. http://web.mit.edu/invent/iow/libby.html

|
|Not a trick question.

Really?
```

## 29. Re: 18nH Inductor

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-01 14:07:56 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <Swd7d.105697$9Y5.58899@fed1read02>
Source record: 88823
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

"Joe" <nuisancewildlife@nospamearthlink.net> wrote in message
news:pp17d.8983$Ki1.847@newsread2.news.atl.earthlink.net...
>
> "Gregg" <nospam@unknown.org> wrote in message
> news:a3%6d.496$223.176@edtnps89...
>> Behold, John Smith signalled from keyed 4-1000A filament:
>>
>>
>> > "Joe" <nuisancewildlife@nospamearthlink.net> wrote in message
>> > news:SxZ6d.5576$ls6.2629@newsread3.news.atl.earthlink.net...
>> >>I have been searching the catalogs for an 18nanohenry inductor to use
>> >>in
>> >> conjunction with a Radiotronix RCR-433-RP Receiver and transmitter
>> >> pair
>> >> for
>> >> a remote control I am working on.

SNIP

> Mouser sells them too, but I don't know how to work with surface mounted
> parts.
>
> Thanks,
> Joe
> KB1KVI
>
>

Joe, you're up against physics. 18nH is what you get moving a current
through just a couple of cm of straight wire. Before SMD, a microwave board
looked rather "fuzzy", with little tweaks of wire and snips of stripline. If
you want that 18 nH from one hole in a PCB to another one 01." away, then
you will have to bend that wire into a half loop. That ads inductance, so
the wire will have to be shortened some more.

SMD allows you to slap a lumped value into an exact location, without having
leads to worry about. The down side is that SMD is difficult to work with.
As usual, you have three choices: small, easy and workable. Pick any two.

Ed
wb6wsn

## 30. Re: half-wave dipole in the forest

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-01 14:30:52 UTC
From: richardharrison@webtv.net
Message-ID: <29502-415D6A1C-160@storefull-3256.bay.webtv.net>
Source record: 88825

Art Unwin wrote:
"And how would we have done that? Surely not the Goldwater method!"

H wrote: Pyongyang is problematic and our fault. Should have finished it in `53."

I agree with H. McArthur should have had support from an A-bomb on Pyongyang, followed by similar strikes in China and Russia. We had a nuclear monopoly at that time. The Cold War would have been nipped in the bud.

We would have had to be extremely vigilant to find and destroy any nuclear threat, and keep the U.S. monopoly.

We just could not accept killing so many innocent people to control a hostile world. Good deeds are always punished?

Best regards, Richard Harrison, KB5WZI

## 31. Re: NEWS - Researchers invent antenna for light

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-01 14:40:56 UTC
From: fractenna@aol.com
Message-ID: <20041001104056.25562.00001538@mb-m29.aol.com>
Source record: 88824

```
>|
>|Not a trick question.
>
>Really?
>

Really and truly.

73,
Chip N1IR
```

## 32. Re: half-wave dipole in the forest

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-01 15:49:50 UTC
From: "aunwin@insightbb.com"
Message-ID: <y0f7d.91328$wV.65496@attbi_s54>
Source record: 88826

Then all Nations are correct in pursueing the development of
nuclear weapons for defense since it is to be shown that even peace
loving nations would consider its use to protect its own interests.
All oil producing countries are aware that the U.S. contemplated
the occupation of some Mid East countries during the last oil crises
and have large stockpiles of weapons in Israel for that event. And is the
reason that
the U.S. has supplied bunker busting smart bombs to Israel which is
certainly
overkill for dirt trenches. These displayed intentions by those with nuclear
capability
demand pre emptive strikes by even the smallest nations to halt perceived
intentions.
If an A Bomb had been dropped on the Chinese in Korea would we now be
without fear
of retaliation at China's choosing? If Syria had a A bomb would America have
told Israel
to wipe out their nuclear power station? When America tells Israel to drop
the bunker
buster bombs on Iran can we be sure that Pakistan or other countries will
not come to the defense of Islam.
We in the U.S. have to start thinking of consequences before we follow movie
teachings that we can
take on the World at any time and at any place and for any reason. We are
not strong enough
to do that without allies if we are to preserve some land for the populace
to live on.
Art

"Richard Harrison" <richardharrison@webtv.net> wrote in message
news:29502-415D6A1C-160@storefull-3256.bay.webtv.net...
> Art Unwin wrote:
> "And how would we have done that? Surely not the Goldwater method!"
>
> H wrote: Pyongyang is problematic and our fault. Should have finished it
> in `53."
>
> I agree with H. McArthur should have had support from an A-bomb on
> Pyongyang, followed by similar strikes in China and Russia. We had a
> nuclear monopoly at that time. The Cold War would have been nipped in
> the bud.
>
> We would have had to be extremely vigilant to find and destroy any
> nuclear threat, and keep the U.S. monopoly.

>
> We just could not accept killing so many innocent people to control a
> hostile world. Good deeds are always punished?
>
> Best regards, Richard Harrison, KB5WZI
>

## 33. Re: NEWS - Researchers invent antenna for light

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-01 16:34:52 UTC
From: Wes Stewart <n7ws_@_yahoo.com>
Message-ID: <2o1rl0psm7l3i1lhd7nv7q87nchkfsp7ju@4ax.com>
Source record: 88827

On 01 Oct 2004 14:40:56 GMT, fractenna@aol.com (Fractenna) wrote:

|>|
|>|Not a trick question.
|>
|>Really?
|>
|
|Really and truly.

Just one that you didn't know the answer to.

## 34. Re: half-wave dipole in the forest

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-01 16:36:17 UTC
From: Wes Stewart <n7ws_@_yahoo.com>
Message-ID: <ra1rl01607m1daiu6ph4tn0bf62om7855s@4ax.com>
Source record: 88828

On Fri, 01 Oct 2004 13:21:05 GMT, "aunwin@insightbb.com"
<aunwin@insightbb.com@insightbb.com> wrote:

|> >
|> Reg
|> There are enough reasonable people in Iran and China that they can
|> come along on their own if enough are smart and all are lucky.
|> I've had students from both countries and they were quite bright and
|> rational.
|> Pyongyang is problematic and our own fault. Should have finished it in
|'53.
|> 73
|> H.
|>
|>
|
|
|And how would we have done that?
|Surely not the Goldwater method !

I believe at the time it would have been called the "MacArthur
method." Had Truman listened to him, P5 would have an IOTA number and
the world would be a better place.

And if Barry had been elected in '64, the world would be an even
better place.

## 35. Re: half-wave dipole in the forest

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-01 16:55:02 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <p02rl0ls1uhouvjotmb14lbn2hqhjou010@4ax.com>
Source record: 88829

On Fri, 01 Oct 2004 09:36:17 -0700, Wes Stewart <n7ws_@_yahoo.com>
wrote:
>And if Barry had been elected in '64, the world would be an even
>better place.

Amen.

And free of the liberal Fascist trash that call themselves Neo-Cons.

73's
Richard Clark, KB7QHC

## 36. Re: half-wave dipole in the forest

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-01 17:16:43 UTC
From: "aunwin@insightbb.com"
Message-ID: <%hg7d.150872$MQ5.125196@attbi_s52>
Source record: 88830

I can hardly see how the United States of Mexico will be a better place but
that is for my
grandchildren to decide.
Unless we determine at that time that democracy does not mean that all have
a vote when
Mexicans are a majority because of their accelerating birth rate
Art

"Wes Stewart" <n7ws_@_yahoo.com> wrote in message
news:ra1rl01607m1daiu6ph4tn0bf62om7855s@4ax.com...
> On Fri, 01 Oct 2004 13:21:05 GMT, "aunwin@insightbb.com"
> <aunwin@insightbb.com@insightbb.com> wrote:
>
> |> >
> |> Reg
> |> There are enough reasonable people in Iran and China that they can
> |> come along on their own if enough are smart and all are lucky.
> |> I've had students from both countries and they were quite bright and
> |> rational.
> |> Pyongyang is problematic and our own fault. Should have finished it in
> |'53.
> |> 73
> |> H.
> |>
> |>
> |
> |
> |And how would we have done that?
> |Surely not the Goldwater method !
>
> I believe at the time it would have been called the "MacArthur
> method." Had Truman listened to him, P5 would have an IOTA number and
> the world would be a better place.
>
> And if Barry had been elected in '64, the world would be an even
> better place.

## 37. Re: half-wave dipole in the forest

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-01 19:30:03 UTC
From: Jack Painter <223bthp@cox.net>
Message-ID: <0fi7d.6539$%t3.712@lakeread01>
Source record: 88831

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote

> 
> Tongue-in-cheek, Jack,
> 
> There's no need to tell ME what the British are like.
> 
> After 79 years I know!
> 
> It's just that YOU are better at it than we EVER were.
> 
> But, 8 years too late, WE are now taking care of puppy-dog Tony.
> 
> Just make sure YOU do likewise with George.
> 
> And we will BOTH get on fine with each other.
> 
> Only three more to sort out - Teheran, Pyongyang and finally Beijing.
> 
> Your Coalition and Tea Party Colleague -
> ----
> Reg.
> 

Hi Reg, I suppose I understand what you meant, although I do not agree that the United States is or was imperialistic the way England was, and we were never as vile to each other, even in our own short Civil War. The most land we ask for from our conqured or liberated is enough to bury our dead on. That is certainly not Britain's history. And I am absolutely sure that neither you nor any Brit has any idea how you could be so absolutely vile to each other in your own country, Christian against Christian (yeh right!). Only the Africans behave as badly to each other as the Irish Protestants and Catholics do.

Just so you know, conservatives have already sent President Bush a strong message, and he is aware that a large majority of his supporters expect *major* changes in his policies, *after* he is re-elected. In my opinion, nothing that Kerry said sounded convincing with regard to the nuclear proliferation problem. Of course the United States is strong enough to fight and win two major wars on separate continents at the same time. We could fight and win three in fact. Just don't expect the kind of compassion in avoiding civilian casualties or surgical strikes that target structural rather than human assets in that event. No sane people in the world want to see things come to that, especially the Chinese. There are however several insane people in the world, namely the leader of North Korea, and the entire

nation of islam. "Friends" like France would still be useful enough, if for just one time, they could protect their *own* land in a world war, and not require more help at that from the US and Great Britain.

;-) Jack

## 38. Re: half-wave dipole in the forest

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-01 19:57:31 UTC
From: "aunwin@insightbb.com"
Message-ID: <LEi7d.158107$D%.51528@attbi_s51>
Source record: 88832

We can "win" many more wars than just three at the same time
by landing on a flight deck and declaring 'mission accomplished.'
Why haven't the troops come home if we have 'won' the war.?
Or is it that from now on frontal engagements will not be fought anymore and
where we build a defensive position down town and only venture out in
daylight when CNN passes by.
Art

"Jack Painter" <223bthp@cox.net> wrote in message
news:0fi7d.6539$%t3.712@lakeread01...
>
> "Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote
>
> >
> > Tongue-in-cheek, Jack,
> >
> > There's no need to tell ME what the British are like.
> >
> > After 79 years I know!
> >
> > It's just that YOU are better at it than we EVER were.
> >
> > But, 8 years too late, WE are now taking care of puppy-dog Tony.
> >
> > Just make sure YOU do likewise with George.
> >
> > And we will BOTH get on fine with each other.
> >
> > Only three more to sort out - Teheran, Pyongyang and finally Beijing.
> >
> > Your Coalition and Tea Party Colleague -
> > ----
> > Reg.
> >
>
> Hi Reg, I suppose I understand what you meant, although I do not agree
that
> the United States is or was imperialistic the way England was, and we were
> never as vile to each other, even in our own short Civil War. The most
land
> we ask for from our conqured or liberated is enough to bury our dead on.
> That is certainly not Britain's history. And I am absolutely sure that
> neither you nor any Brit has any idea how you could be so absolutely vile
to

> each other in your own country, Christian against Christian (yeh right!).
> Only the Africans behave as badly to each other as the Irish Protestants
and
> Catholics do.
>
> Just so you know, conservatives have already sent President Bush a strong
> message, and he is aware that a large majority of his supporters expect
> *major* changes in his policies, *after* he is re-elected. In my opinion,
> nothing that Kerry said sounded convincing with regard to the nuclear
> proliferation problem. Of course the United States is strong enough to
fight
> and win two major wars on separate continents at the same time. We could
> fight and win three in fact. Just don't expect the kind of compassion in
> avoiding civilian casualties or surgical strikes that target structural
> rather than human assets in that event. No sane people in the world want
to
> see things come to that, especially the Chinese. There are however several
> insane people in the world, namely the leader of North Korea, and the
entire
> nation of islam. "Friends" like France would still be useful enough, if
for
> just one time, they could protect their *own* land in a world war, and not
> require more help at that from the US and Great Britain.
>
> ;-) Jack
>
>

## 39. Re: 18nH Inductor

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-01 20:17:10 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <0tidnaOH78HbJsDcRVn-qw@comcast.com>
Source record: 88833
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:cji081$nq7$1@titan.btinternet.com...
> An 18 nano-henry inductor seems, to me, to be an impractical inductor
> value.
> The length of the connecting wires will form an appreciable part of the
> inductance. There must be another way of acheiving the desired circuit
> functions.
>
> However, to find the length, diameter and number of turns to make such a
> small coil you can use program SOLNOID3 which can be downloaded in a few
> seconds, free of charge, and run immediately from the the website below.
> Try it and see what happens.
> ---
> ............................................................
> Regards from Reg, G4FGQ
> For Free Radio Design Software go to
> http://www.btinternet.com/~g4fgq.regp
> ............................................................
Reg,
A 1/2 turn loop of the proper dimensions might be more practical. I recall
using one that was about .5 in high between .5 centers, made of #14 wire.
(it carried 10 amps). Don't remember the exact value, but it was probably a
little more than what he is looking for.

At any rate, as you say, it is important to add the inductance of the
circuit board traces to the inductor value. BTW, the last job I was on used
402 SM inductors down to about 10 nH, but that was at 2+ GHz.

Tam

## 40. Ground connections to a tower

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-01 20:24:24 UTC
From: Bill Ogden <wogden@attglobal.net>
Message-ID: <Y1j7d.22205$kq6.11630366@news4.srv.hcvlny.cv.net>
Source record: 88834

I have a TX455 tower that I am beginning to ground and I could use some collective experience of the group. This is a 55-foot tower in a location not especially prone to lightning. I am trying to be reasonable without going overboard on grounding.

1. Where might I obtain the 1-inch nuts for the standard UST concrete stubs? And stainless steel washers to match? My local Home-Depot type places seem to stop at the 3/4-inch sizes.

2. There is no clearcut way to connect ground straps/wires to the tower. I have ground posts about 30 inches from each of the three concrete bolts holding the tower base. It seems reasonable to run a strap from a ground post to the 1-inch concrete bolts holding the tower base bracket. There is enough thread exposed above these to hold two (thin) SS washers and another 1-inch nut. This appears to be a convenient way to make the connection. I assume the SS washers would be needed to fight corrosion from the copper wire/strap to the zinc-dipped tower base.

3. I want radials for the tower (for a quarter-wave sloper). Would it be reasonable to connect multiple radials to each of three ground posts and then depend on the single wire/strap from the ground posts the three bolts holding the tower base? This is for 160/80/40/30 meter operation.

Thanks,

Bill
W2WO

## 41. Re: half-wave dipole in the forest

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-01 22:09:19 UTC
From: "H. Adam Stevens, NQ5H" <NQ5H@ARRL.net>
Message-ID: <10lrlim689og3b5@corp.supernews.com>
Source record: 88835

"Richard Harrison" <richardharrison@webtv.net> wrote in message
news:29502-415D6A1C-160@storefull-3256.bay.webtv.net...
> Art Unwin wrote:
> "And how would we have done that? Surely not the Goldwater method!"
>
> H wrote: Pyongyang is problematic and our fault. Should have finished it
> in `53."
>
> I agree with H. McArthur should have had support from an A-bomb on
> Pyongyang, followed by similar strikes in China and Russia. We had a
> nuclear monopoly at that time. The Cold War would have been nipped in
> the bud.
>
> We would have had to be extremely vigilant to find and destroy any
> nuclear threat, and keep the U.S. monopoly.
>
> We just could not accept killing so many innocent people to control a
> hostile world. Good deeds are always punished?
>
> Best regards, Richard Harrison, KB5WZI
>

I have a slight inside track: My father fought in Korea for 16 months.
Artillery. Directed fire at the Punch Bowl.
Had 'em on the run and told to stop.
That was dumb.
BTW They had nukes in theater.
73
H.

OB Antenna
I'm very happy with the SteppIR vertical on the aluminum roof with the Orion
and Alpha 87A.
This is the first rig I've had rig that beats my S-Line, outside the digital
bells and whistles.
Now if I can just put up the tower and the 4 element SteppIR beam.

## 42. Re: 6 and 2 meter homebrew????

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-01 22:23:02 UTC
From: Simon <nospamsimonews@mannini.it>
Message-ID: <cjklgg$8i4$1@fata.cs.interbusiness.it>
Source record: 88836

Bjmlittle00 wrote:
> I am wanting to make an antenna that will work for 6 meters and 2 meters. Can
> someone provide a newbie with some suggestions???
> Thanks
> Buck

Start from here :)

http://www.dxzone.com/catalog/Technical_Reference/Antennas/index.shtml

## 43. Re: NEED INFOS TO MAKE A WINDOM ANTENNA (FD4)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-01 22:25:15 UTC
From: Simon <nospamsimonews@mannini.it>
Message-ID: <cjklkl$8i4$2@fata.cs.interbusiness.it>
Source record: 88837

F4ATM Laurent wrote:
> Hello,
> i need all lenghts of wires and balun type ( 1/6 or 1/4 )to make a
> Windom antenna 10m to 80m.
> My maximal lenght for the 2/3 wire is 24m maxi, i have no mutch place
> in my little garden ...
> Please send me schematics or infos by mail to f4atm@wanadoo.fr
> Thanks in advance for reply.
> 73
> F4ATM Laurent

A six-band, HF Windom antenna

http://www.dxzone.com/cgi-bin/dir/jump2.cgi?ID=7478

Simon

## 44. Re: NEWS - Researchers invent antenna for light

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-01 22:38:21 UTC
From: Gods - nothing but gods !! <GoodBye2964764@Hotmail.com>
Message-ID: <415ddc5e@post.usenet.com>
Source record: 88851

**** Post for FREE via your newsreader at post.usenet.com ****

"Fractenna"
> The patent is the only thing that matters
> in such new technology.

<Yawn...> Oh sorry...

Look - anyone could 'patent' going into space in a cheap, reusable rocket like 'this' and like 'that'. What makes the evening news is when someone actually DOES it. Same thing for 'light antennas' - who did it first (couldn't care less who happened to apply for a patent if they didn't actually DO it).

When they changed the definition of 'reduction to practice' from 'send a working model' to 'just write it down', the whole patent system became a lawyers' game and a work of fiction in many cases.

> BTW, here's today's trivia question.
> Carbon 14 dating is a mainstay for setting ages
> of things a few thousands of years old.
> Who--invented--it?

Perhaps someone patented it in 1920.

The decay of Carbon-14 and it's relationship to cosmic rays, the atmosphere, life and death is a natural phenomenon. It wasn't really 'invented' (except by God and/or Nature), it was discovered (or developed) by W.F. Libby.

According to Encyclopedia Britannica 2003 Deluxe CD edition (oh so cool for $10):
"The carbon-14 method was developed by the American physicist Willard F. Libby about 1946."
"...he and his students developed the carbon-14 dating technique."
"[He] wrote Radiocarbon Dating (1952)."
"For this development he was honoured with the Nobel Prize for Chemistry in 1960."

From the WWW:
"In 1960, Libby was awarded the Nobel Prize in Chemistry for leading the team (namely, post-doc James Arnold and graduate student Ernie Anderson, with a $5,000 grant) that developed Carbon-14 dating."

"Martin Kamen discovered [Carbon-14] in 1940 in collaboration with the late Sam Ruben, a University of California, Berkeley chemist, while the two were working at the 60-inch cyclotron at the Lawrence Radiation Laboratory."

Do you know something the rest of the world doesn't?

-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
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http://www.usenet.com
Unlimited Download - 19 Seperate Servers - 90,000 groups - Uncensored
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## 45. Re: 18nH Inductor

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-01 23:00:30 UTC
From: Joe <nuisancewildlife@nospamearthlink.net>
Message-ID: <ikl7d.891$Vm1.583@newsread3.news.atl.earthlink.net>
Source record: 88838

"John Smith" <kd5yikes@mindspring.com> wrote in message
news:Kl37d.14328$gG4.12002@newsread1.news.pas.earthlink.net...
>
> "Joe" <nuisancewildlife@nospamearthlink.net> wrote in message
> news:Ih17d.6015$ls6.5005@newsread3.news.atl.earthlink.net...
> >
> > "John Smith" <kd5yikes@mindspring.com> wrote in message
> > news:5y_6d.3067$Yr.2732@newsread3.news.pas.earthlink.net...
> >>
> >> "Joe" <nuisancewildlife@nospamearthlink.net> wrote in message
> >> news:SxZ6d.5576$ls6.2629@newsread3.news.atl.earthlink.net...
> >> >I have been searching the catalogs for an 18nanohenry inductor to use
in
> >> > conjunction with a Radiotronix RCR-433-RP Receiver and transmitter
pair
> >> > for
> >> > a remote control I am working on. Radiotronix has an app note that
> >> > shows
> >> > this inductor used with a couple of 8.2pf caps to get good
> >> > reception/transmission for their modules.
> >> >
> >> > I have been unable to find a source other than surface mount parts.
> >> > Does
> >> > anyone know of a source for this size inductor, or know the formula
> > that
> >> > I
> >> > would use to wind my own?
> >> >
> >> > I am posting this to rec.radio.amateur.homebrew and
> >> > rec.radio.amateur.antenna
> >> >
> >> > TIA,
> >> >
> >> > Joe
> >> > KB1KVI
> >>
> >>
> >> A one inch length of #18 AWG wire is about 18 nH at VHF and above,
> > according
> >> to the ARRL Handbook, 2004 edition, page 10.10. The equation is:
> >>
> >> L = .00508b[ln(2b/a)-.75] where
> >>
> >> L is in uH

> >> b is length in inches
> >> a is wire radius in inches
> >> and change the .75 to 1 for VHF and above
> >>
> >> So, it kind of makes sense why they don't sell lead-mounted 18 nH
> > inductors.
> >> People would complain that they only got one lead, and it's a short
lead
> > at
> >> that.
> >>
> >> If I were trying it, I'd try a one-turn loop of about 1/4 diameter with
> >> leads just long enough to solder into the circuit. Maybe all you need
is
> >> a
> >> kinky piece of wire and adjust the kink to tune.
> >>
> >> Good luck,
> >> John (KD5YI)
> >>
> >
> >
> > Hi John,
> >
> > Thanks for the info. Much more specific. I didn't realize I could make
one
> > from #18. I have the latest ARRL handbook, but maybe wasn't looking in
> > the
> > right place to see that info.
> >
> > I don't have an inductance meter, so I am not sure how I would tune it.
It
> > is for 433.92MHz.
> >
> > http://www.radiotronix.com/downloads/433_pair.pdf
> >
> > The document is at the above address.
> >
> > Thank you again,
> > Joe
> > KB1KVI
>
> Hi, Joe -
>
> You won't tune it with an inductance meter. You could try constructing one
> of those RF millivoltmeters in the ARRL manual and reading the voltage
> across a (leadless) 50 Ohm output resistor. Then try kinking your wire
> (inductor) to see if you can tune it that way.
>
> I strongly recommend you get a copy of "The ARRL UHF/Microwave

> Experimenter's Manual" and read it like there is no tomorrow. It will open
> your eyes about things that happen to wires at 434 MHz. For example, if
> you've made a few calculations, you may have discovered that an 18 nH
> inductor has a reactance of almost 50 Ohms at 434 MHz. That's why you are
> told to have no leads on components at that frequency. Have you seen a 440
> MHz power amplifier? You will notice the absence of many inductors and
> capacitors compared to lower frequency amplifiers. That's because they use
a
> few inches of PCB material to make inductors, capacitors, transmission
> lines.
>
> If they did make leaded 18 nH inductors, how long would the leads be? If
you
> purchase an 18 nH SMD inductor and put two 1/4 inch long #22 AWG wires on
> it, you will then have a 27 nH inductor. That doesn't solve your problem.
>
> Your problem at 434 MHz will be that every component (with leads) that you
> add, you will also add several nH of inductance if your leads are longer
> than .1 inches or so.
>
> If you analyze the receiving network, you will see that, if the antenna is
> 50 Ohms, the receiver sees 50 Ohms. So the network appears to simply be a
> filter. I would loose the receiver PI network, for sure. I think the
> transmitter is similar.
>
> If it were me, I would forget both PI networks and even forget the pad on
> the transmitter. Put a cotton pickin' 6.8 inch antenna on the module and
try
> it. Arrange your module so the antenna can be attached directly to the pin
> of the module, if possible.
>
> Or, do these transmitters require the PI network to stay within FCC
limits?
>
> Anyway, good luck.
>
> John
>
Hi John,

That's what I have been doing. Just using a piece of 20 ga wire for an antenna, it is about 15cm in length (a vertical antenna). On the transmitter, I was using a loop, a piece of 20 ga wire with a 1 pf cap between the hot end of the antenna and the transmitter pin, other end grounded.

Last nite after I read all the responses, I went to the Handbook and looked at page 10.10. There is a graph at the bottom of the page that shows inductances of a straight piece of wire at that frequency. Anyway, I rigged up a 0.9" piece of 20ga wire between two 8pf ( I did not have 8.2pf) caps and the reception increased dramatically. My test method was: Receiver in my

house on a bench. TX outside about 80 feet away. In the old configuration, the receiver would sometimes receive the TX pulses. Once I put the TX inside my tool shed (about) the same distance away, the receiver would not pick up the signal. So after I rigged up my "almost" 18nH inductor and the 2 8pf caps, I repeated the experiment and the receiver was able to reliably receive the transmissions in both places. So I definitely saw an improvement.

As far as FCC goes, this frequency is supposed to be for ISM, and you can use it unlicensed subject to part 15, that's why my first attempt was to work on the receiver, not the TX, but I may experiment on the TX now also.

Joe
KB1KVI

## 46. Re: 18nH Inductor

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-01 23:08:06 UTC
From: Joe <nuisancewildlife@nospamearthlink.net>
Message-ID: <qrl7d.904$Vm1.549@newsread3.news.atl.earthlink.net>
Source record: 88839

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:cjjido$nhl$1@sparta.btinternet.com...
> For anyone interested in what an 18 nano-H inductor looks like under a
> magnifying glass -
>
> 3 turns of 0.33 mm diameter wire, wound on a 2.2 mm diameter former, over
a
> length of 2.0 mm.
>
> Its self-resonant frequency is 4.6 GHz and it is tuned to 1 GHz with a
> capacitor of 1.3 pF. Q = 330 at 1 GHz.
> ----
> Reg
>
>

Thanks Reg,

I could not run the program solnoid3 on my computer for some reason. I am
using winblows xp.

I did improve the performance of my receiver tho. I checked the graph on
page 10.10 of the handbook and rigged up a straight piece of 20 ga wire for
my inductor. I don't know what the inductance actually is, but it improved
the performance greatly, which is all I was trying to do.

Best Regards,

Joe
KB1KVI

## 47. test

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-01 23:30:19 UTC
From: Thierry <thierry@wanadoo.fr>
Message-ID: <415dea05$0$25420$8fcfb975@news.wanadoo.fr>
Source record: 88840

test

## 48. Re: Ground connections to a tower

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-02 00:02:46 UTC
From: k9sqg@aol.com
Message-ID: <20041001200246.16860.00003818@mb-m20.aol.com>
Source record: 88841

Too bad the grounding wasn't thought about sooner so that 1-3 ground rods could have been put into the bottom of the hole dug for the base...

## 49. Re: NEWS - Researchers invent antenna for light

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-02 00:05:49 UTC
From: fractenna@aol.com
Message-ID: <20041001200549.10414.00002984@mb-m23.aol.com>
Source record: 88842

>Just one that you didn't know the answer to.

That is an incorrect statement.

## 50. Re: NEWS - Researchers invent antenna for light

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-02 00:16:03 UTC
From: Gawds - nuttin but gawds !! <K807y07y@Hotmail.com>
Message-ID: <415df340$1@post.usenet.com>
Source record: 88852

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>> Just one that you didn't know the answer to.

"Fractenna"
> That is an incorrect statement.

Oh stop grand-standing and spit it out.

Geesh...

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## 51. Re: Ground connections to a tower

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-02 00:21:21 UTC
From: sideband <AINO8SPAMW@cac.net>
Message-ID: <5wm7d.13182$Qv5.8412@newssvr33.news.prodigy.com>
Source record: 88843

Bill Ogden wrote:

> I have a TX455 tower that I am beginning to ground and I could use some
> collective experience of the group. This is a 55-foot tower in a location
> not especially prone to lightning. I am trying to be reasonable without
> going overboard on grounding.
>
> 1. Where might I obtain the 1-inch nuts for the standard UST concrete stubs?
> And stainless steel washers to match? My local Home-Depot type places seem
> to stop at the 3/4-inch sizes.
>

Try a Semi truck repair facility. Lugs on most large trucks range from
1" to 33mm. Washers should be available too, though Stainless might be
a stretch.

> 2. There is no clearcut way to connect ground straps/wires to the tower. I
> have ground posts about 30 inches from each of the three concrete bolts
> holding the tower base. It seems reasonable to run a strap from a ground
> post to the 1-inch concrete bolts holding the tower base bracket. There is
> enough thread exposed above these to hold two (thin) SS washers and another
> 1-inch nut. This appears to be a convenient way to make the connection. I
> assume the SS washers would be needed to fight corrosion from the copper
> wire/strap to the zinc-dipped tower base.
>
> 3. I want radials for the tower (for a quarter-wave sloper). Would it be
> reasonable to connect multiple radials to each of three ground posts and
> then depend on the single wire/strap from the ground posts the three bolts
> holding the tower base? This is for 160/80/40/30 meter operation.
>
> Thanks,
>
> Bill
> W2WO
>
>

## 52. Re: 18nH Inductor

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-02 00:58:47 UTC
From: Ralph Mowery <rmowery28146@earthlink.net>
Message-ID: <b3n7d.995$Vm1.243@newsread3.news.atl.earthlink.net>
Source record: 88844

> 
> I did improve the performance of my receiver tho. I checked the graph on
> page 10.10 of the handbook and rigged up a straight piece of 20 ga wire
for
> my inductor. I don't know what the inductance actually is, but it improved
> the performance greatly, which is all I was trying to do.

One reason the receiver improved may be because the filter was cutting out
all the wide band noise (other signals).

## 53. Re: 18nH Inductor

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-02 02:05:08 UTC
From: John Smith <kd5yikes@mindspring.com>
Message-ID: <o1o7d.549$UP1.466@newsread1.news.pas.earthlink.net>
Source record: 88845

"Joe" <nuisancewildlife@nospamearthlink.net> wrote in message
news:ikl7d.891$Vm1.583@newsread3.news.atl.earthlink.net...
>

> Hi John,
>
> That's what I have been doing. Just using a piece of 20 ga wire for an
> antenna, it is about 15cm in length (a vertical antenna). On the
> transmitter, I was using a loop, a piece of 20 ga wire with a 1 pf cap
> between the hot end of the antenna and the transmitter pin, other end
> grounded.
>
> Last nite after I read all the responses, I went to the Handbook and
> looked
> at page 10.10. There is a graph at the bottom of the page that shows
> inductances of a straight piece of wire at that frequency. Anyway, I
> rigged
> up a 0.9" piece of 20ga wire between two 8pf ( I did not have 8.2pf) caps
> and the reception increased dramatically. My test method was: Receiver in
> my
> house on a bench. TX outside about 80 feet away. In the old configuration,
> the receiver would sometimes receive the TX pulses. Once I put the TX
> inside
> my tool shed (about) the same distance away, the receiver would not pick
> up
> the signal. So after I rigged up my "almost" 18nH inductor and the 2 8pf
> caps, I repeated the experiment and the receiver was able to reliably
> receive the transmissions in both places. So I definitely saw an
> improvement.
>
> As far as FCC goes, this frequency is supposed to be for ISM, and you can
> use it unlicensed subject to part 15, that's why my first attempt was to
> work on the receiver, not the TX, but I may experiment on the TX now also.
>
> Joe
> KB1KVI

Good work, Joe. Keep experimenting. It pays off.

John

## 54. Re: Ground connections to a tower

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-02 08:46:01 UTC
From: eas90168@aol.com
Message-ID: <4b031b96.0410020046.62eca811@posting.google.com>
Source record: 88846

I can not recommend Ground Strap to ground the tower. Strapping makes
an excellent wick for rain water and will soon corrode. It is much
better to use a heavy copper wire. If you must use ground strap, be
sure to paint a heavy rubberized coating on all surfaces of the ground
strap.

Eric N7DLV

sideband <AINO8SPAMW@cac.net> wrote in message
news:<5wm7d.13182$Qv5.8412@newssvr33.news.prodigy.com>...
> Bill Ogden wrote:
>
> > I have a TX455 tower that I am beginning to ground and I could use some
> > collective experience of the group. This is a 55-foot tower in a location
> > not especially prone to lightning. I am trying to be reasonable without
> > going overboard on grounding.
> >
> > 1. Where might I obtain the 1-inch nuts for the standard UST concrete stubs?
> > And stainless steel washers to match? My local Home-Depot type places seem
> > to stop at the 3/4-inch sizes.
> >
>
> Try a Semi truck repair facility. Lugs on most large trucks range from
> 1" to 33mm. Washers should be available too, though Stainless might be
> a stretch.
>
> > 2. There is no clearcut way to connect ground straps/wires to the tower. I
> > have ground posts about 30 inches from each of the three concrete bolts
> > holding the tower base. It seems reasonable to run a strap from a ground
> > post to the 1-inch concrete bolts holding the tower base bracket. There is
> > enough thread exposed above these to hold two (thin) SS washers and another
> > 1-inch nut. This appears to be a convenient way to make the connection. I
> > assume the SS washers would be needed to fight corrosion from the copper
> > wire/strap to the zinc-dipped tower base.
> >
> > 3. I want radials for the tower (for a quarter-wave sloper). Would it be
> > reasonable to connect multiple radials to each of three ground posts and
> > then depend on the single wire/strap from the ground posts the three bolts
> > holding the tower base? This is for 160/80/40/30 meter operation.
> >
> > Thanks,
> >
> > Bill
> > W2WO
> >

> >

## 55. Re: NEWS - Researchers invent antenna for light

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-02 14:11:48 UTC
From: "Silly Poodles - nothing but..." <L83898@Hotmail.com>
Message-ID: <415eb71f@post.usenet.com>
Source record: 88853

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>> Just one that you didn't know the answer to.

"Fractenna"
> That is an incorrect statement.

Oh stop grand-standing and spit it out.

Geesh...

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## 56. Re: Ground connections to a tower

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-02 15:53:41 UTC
From: Jack Painter <223bthp@cox.net>
Message-ID: <aaA7d.7460$uY3.7248@fed1read03>
Source record: 88847

"Eric Snyder" <eas90168@aol.com> wrote

> I can not recommend Ground Strap to ground the tower. Strapping makes
> an excellent wick for rain water and will soon corrode. It is much
> better to use a heavy copper wire. If you must use ground strap, be
> sure to paint a heavy rubberized coating on all surfaces of the ground
> strap.
>
> Eric N7DLV

Very good Eric. The other problem with "strap" (and we assume Bill Ogden meant braid) is that braid is is a poor DC ground, and not even close to the best choice for RF ground or bonding connector for lightning protection. Braid is only specified for grounding of vibrating machinery and other flexible requirements. Avoid any kind of braid for radio or bonding uses if possible, especially if it is not tinned.

SS washers between copper and galvanized tower will not isolate the connection at all. Acid rain will wash the copper oxides all over the tower studs as if it were connected directly.

Obtaining the best tower and coax shield grounding possible is important not only for lightning protection, but for protection from static charges which all towers and antennas are susceptable to. The RF grounds and radials etc must be an integral part of any lightning protection scheme. The only reminder is to avoid allowing a downconductor from rooftop air terminals, masts or tower from bonding to an RF radial component *until* the downconductor first connects to a deep ground rod.

Jack

>
> sideband <AINO8SPAMW@cac.net> wrote in message
news:<5wm7d.13182$Qv5.8412@newssvr33.news.prodigy.com>...
> > Bill Ogden wrote:
> >
> > > I have a TX455 tower that I am beginning to ground and I could use
some
> > > collective experience of the group. This is a 55-foot tower in a
location
> > > not especially prone to lightning. I am trying to be reasonable
without
> > > going overboard on grounding.
> > >
> > > 1. Where might I obtain the 1-inch nuts for the standard UST concrete
stubs?

> > > And stainless steel washers to match? My local Home-Depot type places
seem
> > > to stop at the 3/4-inch sizes.
> > >
> >
> > Try a Semi truck repair facility. Lugs on most large trucks range from
> > 1" to 33mm. Washers should be available too, though Stainless might be
> > a stretch.
> >
> > > 2. There is no clearcut way to connect ground straps/wires to the
tower. I
> > > have ground posts about 30 inches from each of the three concrete
bolts
> > > holding the tower base. It seems reasonable to run a strap from a
ground
> > > post to the 1-inch concrete bolts holding the tower base bracket.
There is
> > > enough thread exposed above these to hold two (thin) SS washers and
another
> > > 1-inch nut. This appears to be a convenient way to make the
connection. I
> > > assume the SS washers would be needed to fight corrosion from the
copper
> > > wire/strap to the zinc-dipped tower base.
> > >
> > > 3. I want radials for the tower (for a quarter-wave sloper). Would it
be
> > > reasonable to connect multiple radials to each of three ground posts
and
> > > then depend on the single wire/strap from the ground posts the three
bolts
> > > holding the tower base? This is for 160/80/40/30 meter operation.
> > >
> > > Thanks,
> > >
> > > Bill
> > > W2WO
> > >
> > >

## 57. Superskyhooks antenna scam

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-02 16:12:39 UTC
From: zerobeatradio@yahoo.com
Message-ID: <c80b2ab0.0410020812.7d41000a@posting.google.com>
Source record: 88848
Cross-posted to: rec.radio.amateur.policy,alt.ham-radio.vhf-uhf,rec.radio.swap,rec.radio.amateur.antenna

Beware of this crook.

> That's priceless! You're talking to yourself and handing out Psychiatric
> advice. Did your court ordered shrink teach you that trick?
>
> COUNT PARTY DESCRIPTION ABBREV.
> 1 (D -1)ADAIR DOUGLAS W NONSUPPORT OF DEPENDENTS F4
>
> Defendant to seek mental health counseling
>
> Pursuant to the request of probation a capias is ordered
> issued. Bond is set at $5,000.00 no 10%.
>
> Probation as ordered by this Court on April 11, 1997 is
> ordered continued with the following added conditions: 1)
> Seek and maintain gainful employment; 2) Defendant to seek
> mental health counseling; 3) Execute wage withholding
> agreement.
>
> JUDGE JAMES D. JENSEN
> PARTY : D1 - ADAIR DOUGLAS W
> 12/5/2000 1 Title : EVT:JE FILE/JOUR $ THRU9/23/03
> SENTENCE C-184-502
> PARTY : D1 - ADAIR DOUGLAS W
> 3/15/2002 1 Title : COMMUNITY CONTROL TERMINATED
> terminated unsuccesfully
> PARTY : D1 - ADAIR DOUGLAS W
>
>
> > "I am Steveo...OBEY ME"
> >
> > AKC sparklingly replied....
> >
> > "Yawn"
> >
> > "try again...maybe you can make more threats and we will quiver...with
> > laughter"
> >
> > HAHHAHAHAHA...see how moped can't take it...we know about you in PA,
> > you JOKE.
> >
> It figures you would show nervous laughter after being outed as a felon.
>

> Hey! After doing a little more research about superskyhooks and N8WWM's
> antenna scam and felony bust, and court ordered shrink..I found out
> that he's also living with a felon who has lost her CPA license due
> to tax fraud. (details below) Man, this N8WWM guy has real issues!
>
> KC8QJP Lee Kathleen <---- her address is the same as N8WWM on QRZ.com
>
> http://acc.ohio.gov/dhearing.html
> http://acc.ohio.gov/bdmn0401.html
> FORMAL DISCIPLINARY HEARING-KATHLEEN R. LEE
> Chairman Woods noted that Kathleen Lee was issued CPA certificate 36,525
> on July 15, 1998. The hearing was to consider disciplinary action
> against Ms. Lee's CPA certificate pursuant to Ohio Revised Code section
> 4701.16(A)(5), conviction of a felony under the laws of any state or of
> the United States. Ms. Lee was convicted in the United States District
> Court, Northern District of Ohio of five counts of Aiding & Assisting in
> Filing False Tax Returns, a violation of 26 USC 7206(2), on June 12,
> 2000. Ms. Lee did not appear at the hearing. The Board agreed to
> deliberate the disciplinary action in a later executive session.
> Action taken.
> Kathleen R. Lee, CPA 4701.16(A)(5)-Convicted of aiding & assisting in
> filing of false tax returns. CPA certificate revoked.

## 58. Re: NEWS - Researchers invent antenna for light

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-02 16:51:24 UTC
From: richardharrison@webtv.net
Message-ID: <20182-415EDC8C-583@storefull-3254.bay.webtv.net>
Source record: 88850

Chip wrote:
"Who invented it (radiocarbon dating)?"

I`d rather date a real live girl.

All living things contain radiocarbon (carbon 14). It`s a radioactive isotope which appears in small concentration in the atmosphere from cosmic ray bombardment. After death, former living things no longer absorb the isotope. The radioactive isotope in the dead thing starts to decay at an exact and uniform rate. Its radiation half-life is 5,730 years.

Remnant radiation makes it possible to date things formerly living within the past 50,000 years. approximately.

The radiocarbon dating technique was developed by Dr. Willard F. Libby (1908-1980) in the late 1940s.

This comes from "The Handy Science Answer Book" of the Carnegie Library of Pittsburg.

Best regards, Richard Harrison, KB5WZI.

## 59. Mothers Fucking A Champagne Bottle ! 4081 [1/2]

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-02 17:19:26 UTC
From: gtzjll@nycap.rr.com
Message-ID: <200410021619.i92GJGj01505@linux.iafd.com>
Source record: 88849
Cross-posted to: rec.arts.movies.erotica,rec.radio.amateur,rec.radio.amateur.antenna

You never guess what , I set up a camera in my mothers room and caught my mother and her friend masterbating with a champagne bottle after a party my mother had at the house , see the pics here.
fnfovmgdlfppkfendueeosxrbqpldgpsciohhljqyjwjhgbpnsjzshlqiezngeyydxtrwgdpkbvjqbzuvch

## 60. Re: DIY Omni TV receiver antenna challenge

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-02 21:40:08 UTC
From: Jimmie <Gfender@carolina.rr.com>
Message-ID: <YeF7d.17766$n%3.2584446@twister.southeast.rr.com>
Source record: 88854

"Dave Platt" <dplatt@radagast.org> wrote in message
news:10lgspocg5enq18@corp.supernews.com...
> In article <864d4e6b.0409271158.5b059f6b@posting.google.com>,
> Angelo Guarino <angelo@oceansystems.com> wrote:
>
> >I wish to hoist an antenna up a sailboat mast on a halyard to help
> >receive TV stations when out in the Chesapeake Bay. The challenge is
> >that the boat will rotate at anchor with the wind and even turn the
> >antanna on it's axis as it it "hoisted" by rope and not locked
> >rotationally.
> >
> >There are commercially available antennas .. but it looks to me that
> >it's simply a "fat" folded dipole. I would think that I could
> >construct it's equivalent using the basic homemade folded dipole
> >approach.
> >
> ><http://www.boatenna.com/framesample1_000002.htm>
> >
> >Any other suggestions for a do-it-yourself antenna? It's not often
> >that I want to watch TV when on the boat (i.e. the reason I'm out
> >there) so I was hoping to build something myself out of thick guage
> >wire and 300ohm antenna wire.
> >
> >Would 2 stacked folded dipoles with a 90deg offset (and "X") be an
> >effective approach?
>
> That would work - it's a "turnstile" configuration.
>
> Another fairly common approach is to build a 300-ohm folded dipole,
> and then bend the dipole into an "S" shape. This gives it a fairly
> omnidirectional pattern, eliminating the null-off-the-end of a
> straight dipole. You could probably build one of these out of
> heavy-gauge copper or aluminum wire.
>
I buit an S shaped folded dipole like this for my camper years ago. Like you
I did nt want it for watching a lot of TV.Just get weather reports and such,
Mine was about 10 ft long before bending it into an S and I used a good
quality preamp with it. Actually I was quite surprised at how well it
worked.

## 61. Re: Rohn tower as vertical

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-02 22:01:13 UTC
From: t_ashland@yahoo.com
Message-ID: <6e6aeba9.0410021401.5b15d5d5@posting.google.com>
Source record: 88855

Thanks to all the replies! Yes, I didn't probably have as many
radials down as I should for the HF2V. I think I will keep it stored
away and take my chances on an inverted v antenna and feed it with
ladder line. I am going to put a mast above the tower.
73,
Terry, WK0F
nm5k@wt.net (Mark Keith) wrote in message
news:<25eb70d7.0410010146.c58810c@posting.google.com>...
> "N9EFJ" <the2x4@bellsouth.net> wrote in message
news:<7_17d.3698$DV3.3543@bignews5.bellsouth.net>...
> > What effect would explain the " better for DX"?
> > Less Noise - Increased signal - Both?
>
> The angles used for low band dx are very low in general. Below 10
> degrees.
> So naturally, you want an antenna that favors the lower angles, rather
> than a cloudwarmer that favors many of them. Or even worse, straight
> up. At night on 40m, my 10 ft mobile antenna is stronger 1000 miles
> away, than my dipole here at the house which is about 40 ft up. The
> mobile whip is much less efficient, but what power it does radiate, is
> at the perfect angle for the path I'm working.
> As far as the original poster, I'd use either the HF2V as a ground
> plane, with elevated radials, or I'd extend the mast and run inv L's.
> But I'm almost positive that the GP would smoke the inv L on 40m. Even
> with as few as 4 radials. I've run the same antenna on 40m, and it
> worked great. But on 80m, he would need double the radials, to equal
> the same efficiency on 40m, not counting loading losses. Also, just
> guessing , but I bet the lack of success with it the last two winters
> was due to a lack of radials...You need a lot if ground mounted. Well,
> unless you like a mediocre signal...:/ If he had 10 radials, elevated
> at 32 or so ft, on 80m with that HF2V, I think it would work quite
> well. They can slope down to the ground, but don't let them touch.
> Probably better than anything else mentioned, being as the current is
> elevated up off the ground. As far as radials, you should always think
> in terms of wavelength off the ground. For the same height, the needed
> number increases the lower in freq you go, for a certain efficiency.
> On 40m, at 32 ft , it's a 1/4 wave up. At that height, 4 radials
> equals about 60 on the ground.
> But on 80m, it will only be an 1/8 wave up. So 4 radials would only
> equal about 32 on the ground. And some will differ, but I find 32
> radials on the ground to be fairly mediocre. And my ground is pretty
> good as far as ground goes. Once you get to the equal of about 60
> radials on the ground, it will really start to play. Or that's what I
> notice. Yes, in theory, the difference should be small, but in the

> real world it seems a quite noticable increase to me. MK

## 62. Mobile HF antenna melting....

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-02 22:27:14 UTC
From: pete365 <pete365@yahoo.com>
Message-ID: <415F2B42.5000604@yahoo.com>
Source record: 88856

Just installed a Hustler mobile antenna on my van and while tuning it, it got so hot that the coil started to melt ( the cover) . What would cause this? Antenna was mounted on a trailer hitch mount, 42" fold-over mast, and with the 40 meter coil installed. At the time, the SWR was less than 1.5 to 1, and running less than 100 watts. Is it normal for these coils to run hot, even when matched?. The 20 meter coil started to get hot too. If this is normal, how much power am I loosing in the coil. Antenna seems to work well, everything else seems ok. Any Thoughts?
Pete N1AGV

## 63. Re: Mobile HF antenna melting....

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-02 23:31:39 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <v7dul05ass0fhfpf04oljni0idbqndb9li@4ax.com>
Source record: 88857

On Sat, 02 Oct 2004 18:27:14 -0400, pete365 <pete365@yahoo.com> wrote:

>Just installed a Hustler mobile antenna on my van and while tuning it,
>it got so hot that the coil started to melt ( the cover) . What would
>cause this?

Hi Pete,

A poor, resistive connection (resistance in general).

>Antenna was mounted on a trailer hitch mount, 42" fold-over
>mast, and with the 40 meter coil installed.

Which would lead to a radiation resistance (for a one fortieth
wavelength antenna) of 2 Ohms.

>At the time, the SWR was
>less than 1.5 to 1,

Which could be explained (by other than tuning) to have been achieved
by inserting a resistance of 30 or 40 Ohms.

> and running less than 100 watts. Is it normal for
>these coils to run hot,

Even 50W into 30 or 40 Ohms gets things toasty.

>even when matched?.

A dummy load matches just as effectively and warmly.

>The 20 meter coil

Which would lead to a radiation resistance (for a one twentieth
wavelength antenna) of 8 Ohms.

>started to
>get hot too.

And probably a lower SWR too.

> If this is normal, how much power am I loosing in the coil.

Ah! The $64000 question. Probably all of it. The better question is
where is all the resistance coming from that makes this heat?

>Antenna seems to work well, everything else seems ok. Any Thoughts?
>Pete N1AGV

Antennas working pretty well and getting hot simultaneously should give pause to re-examining the concept of "working pretty well" (by what criteria, SWR?).

Follow the heat (literally). Wait for things to cool down and then key-down for a shorter period and try to narrow in on that part that warms first. Try one of those fish tank thermometers that is a sticky press on type using liquid crystal phase shifting displays (AKA mood ring technology). The heat is where the resistance is (and wire does not often qualify except at a poor connection point).

73's
Richard Clark, KB7QHC

## 64. Re: Mobile HF antenna melting....

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-02 23:38:15 UTC
From: Dave VanHorn <dvanhorn@cedar.net>
Message-ID: <nbednVTgYt9FpsLcRVn-oA@comcast.com>
Source record: 88858

>Just installed a Hustler mobile antenna on my van and while tuning it,
>it got so hot that the coil started to melt ( the cover) . What would
>cause this?

Any chance this is an old or defective antenna, with corrosion in the
winding?
Power dissipated in resistance rather than radiated, is what's making it get
hot.

--
KC6ETE Dave's Engineering Page, www.dvanhorn.org
Microcontroller Consultant, specializing in Atmel AVR

## 65. Re: 18nH Inductor

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-03 00:32:36 UTC
From: Joe <nuisancewildlife@nospamearthlink.net>
Message-ID: <EMH7d.1778$Vm1.804@newsread3.news.atl.earthlink.net>
Source record: 88859

"Ralph Mowery" <rmowery28146@earthlink.net> wrote in message
news:b3n7d.995$Vm1.243@newsread3.news.atl.earthlink.net...
>
> >
> > I did improve the performance of my receiver tho. I checked the graph on
> > page 10.10 of the handbook and rigged up a straight piece of 20 ga wire
> for
> > my inductor. I don't know what the inductance actually is, but it
improved
> > the performance greatly, which is all I was trying to do.
>
> One reason the receiver improved may be because the filter was cutting out
> all the wide band noise (other signals).
>
>

Hi Ralph,

Yes, that could be it. I have not looked at it on my scope. I will probly do that tonite. Thanks for the idea. I know that before, the receiver was noisy as hell. I don't know if they are all like that, but I'll find out. What I was seeing was just a lot of what looked like random noise, till the TX was activated, then all the noise seemed to go away and just the code (about 680hz square waves) from the TX was visible. I am using the holtek ht12d on the receiver and holtek 12E on the transmitter.

Joe
KB1KVI

## 66. Re: NEWS - Researchers invent antenna for light

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-03 02:09:33 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <o3jul09dhknvr18k97slbutujv99jqeu5m@4ax.com>
Source record: 88860

On Sat, 2 Oct 2004 11:51:24 -0500, richardharrison@webtv.net (Richard Harrison) wrote:
>This comes from "The Handy Science Answer Book" of the Carnegie Library >of Pittsburg.

Hi Richard,

Yes, an answer for the itinerant questioner.

But now for something completely different but wholly within the purview of light (let's see if they can get this one):

In an infinite universe filled with stars, every line of sight should eventually meet the surface of a star. The dimming of starlight with distance should be exactly canceled out by the increase in the number of stars you see as you look farther out, so the night sky should appear as bright as the surface of the sun - but it is not.

This paradox, was solved by:
Erle Stanley Gardner
Edgar Allen Poe
Edwin Powell Hubble
Edward Roscoe Murrow

Name the one who coined the paradox for extra credit.

73's
Richard Clark, KB7QHC

## 67. Re: NEWS - Researchers invent antenna for light

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-03 02:28:24 UTC
From: Tom Ring <news0000@taring.org>
Message-ID: <415f63c8$0$74186$39cecf19@news.twtelecom.net>
Source record: 88861

Richard Clark wrote:
>

> This paradox, was solved by:
> Erle Stanley Gardner
> Edgar Allen Poe
> Edwin Powell Hubble
> Edward Roscoe Murrow
>
> Name the one who coined the paradox for extra credit.
>
> 73's
> Richard Clark, KB7QHC

Hubble

Olber

tom
K0TAR

## 68. Re: NEWS - Researchers invent antenna for light

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-03 03:40:42 UTC
From: Mike Coslo <mcoslo@adelphia.net>
Message-ID: <0c2dnTnS0swq6cLcRVn-vQ@adelphia.com>
Source record: 88862

Richard Clark wrote:
> On Sat, 2 Oct 2004 11:51:24 -0500, richardharrison@webtv.net (Richard
> Harrison) wrote:
>
>>This comes from "The Handy Science Answer Book" of the Carnegie Library
>>of Pittsburg.
>
>
>
> Hi Richard,
>
> Yes, an answer for the itinerant questioner.
>
> But now for something completely different but wholly within the
> purview of light (let's see if they can get this one):
>
> In an infinite universe filled with stars, every line of sight should
> eventually meet the surface of a star. The dimming of starlight with
> distance should be exactly canceled out by the increase in the number
> of stars you see as you look farther out, so the night sky should
> appear as bright as the surface of the sun - but it is not.
>
> This paradox, was solved by:
> Erle Stanley Gardner
> Edgar Allen Poe
> Edwin Powell Hubble
> Edward Roscoe Murrow
>
> Name the one who coined the paradox for extra credit.

That would be Hubble that solved the paradox, and the initial paradox was by Heinrich Olbers, although Jean-Phillippe Loys de Cheseaux (jeez Louise, whatta name!) dabbled in that too. Even Kepler to some extent - though he took the easy way out and decided the Universe must not be infinite.

- Mike KB3EIA -

## 69. Re: NEWS - Researchers invent antenna for light

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-03 04:01:27 UTC
From: richardharrison@webtv.net
Message-ID: <4170-415F7997-318@storefull-3253.bay.webtv.net>
Source record: 88863

Richard Clark wrote:
"This paradox (differing light intensities in various directions) was solved by?"

I have not seen that question before, but will speculate that Edwin Hubble deserves the credit as he used "red shift" in the light from other galaxies to show that they are speeding away from us and our galaxy. In fact, they are accelerating so that the farther the galaxy is away from us, the faster it is moving away.

From continuous acceleration, the distant galaxy will eventually reach the speed of light. Then, light from the distsnt galaxy won`t reach us because it will tag along with the fast moving galaxy.

There may be a time shortage too as Einstein has shown time slows as a thing moves faster.

Hubble has also shown that the Doppler effect would shift the frequency lower as velocity of the retreating thing increases. Shift the frequency low enough and the wave is no longer described as light but may be classified as a millimeter radio wave.

Best regards, Richard Harrison, KB5WZI

## 70. Free Software

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-03 04:40:37 UTC
From: Spam2@Sharewareisland.com
Message-ID: <d4469d0d.0410022040.28c6e9f3@posting.google.com>
Source record: 88864

Tons of Free Software if u need Freeware try http://www.FreewareTown.com

## 71. Re: Mobile HF antenna melting....

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-03 05:04:30 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <yLL7d.13508$Qv5.2155@newssvr33.news.prodigy.com>
Source record: 88865

Pete,
By any chance was the whip/upper portion of the antenna extended
down into the coil? As in a 'core' in the coil which shouldn't be
there, that sort of thing?
'Doc

## 72. Re: NEWS - Researchers invent antenna for light

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-03 05:16:13 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <hf0vl092041td0ati6v24liocrpe850d2k@4ax.com>
Source record: 88866

On Sat, 2 Oct 2004 23:01:27 -0500, richardharrison@webtv.net (Richard Harrison) wrote:

>Richard Clark wrote:
>"This paradox (differing light intensities in various directions) was
>solved by?"
>
>There may be a time shortage too as Einstein has shown time slows as a
>thing moves faster.

A close and suggestive answer.

Hi All,

Well, it is notable that no "astronomer" got this one right ;-)

I will 'fess up in that it was a trick question because it contained a ringer (one that three out of three sprung for).

However two out of three got the extra credit question (Olber's Paradox). No doubt second tier, and to date silent, observers may chime in with "authority." ;-)

No, Hubble may have described an answer that satisfies the paradox, however the FIRST (1848) and ACCURATE response to this issue was written by Edgar Allen Poe in "Eureka!" what he calls a prose poem dedicated to Alexander von Humboldt:
"Were the succession of stars endless, then the background of the sky would present us an uniform luminosity, like that displayed by the Galaxy -- since there could be absolutely no point, in all that background, at which would not exist a star."

Poe's work is a very large monograph on the nature of electricity, gravitation and a very sophisticated description of the cosmology of cluster galaxies (including what are still current theories of condensation during stellar and planetary formation). To bring the paradox to a conclusion he offers: for our being able to view this totality of solar flux as a continuous sheet of luminosity requires that the universe must have existed FOREVER. The concept of light traversing space at less than instantaneous velocity (and that there are huge and vast distances involved) shows a deep consideration of the topic. This monograph is exceedingly developed with a style of irony that I enjoy.

This intelligence touches on a topic that I have broached on one other occasion. Poe was at one time an engineering student at West Point, THE pre-eminent engineering school of America (7 presidents were

engineers). Most of us only encounter his work through recitations of "The Raven," or, for many of us, with the drive-in movies produced by Roger Corman in the early 60s with Vincent Price et al ("The Tell-Tale Heart," "The Fall of the House of Usher," "The Pit and the Pendulum" and others).

73's
Richard Clark, KB7QHC

## 73. Re: NEWS - Researchers invent antenna for light

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-03 05:16:46 UTC
From: jimp@specsol-spam-sux.com
Message-ID: <cjo1vu$762$1@mail.specsol.com>
Source record: 88867

Richard Harrison <richardharrison@webtv.net> wrote:
> Richard Clark wrote:
> "This paradox (differing light intensities in various directions) was
> solved by?"

> I have not seen that question before, but will speculate that Edwin
> Hubble deserves the credit as he used "red shift" in the light from
> other galaxies to show that they are speeding away from us and our
> galaxy. In fact, they are accelerating so that the farther the galaxy is
> away from us, the faster it is moving away.

> From continuous acceleration, the distant galaxy will eventually reach
> the speed of light. Then, light from the distsnt galaxy won`t reach us
> because it will tag along with the fast moving galaxy.

> There may be a time shortage too as Einstein has shown time slows as a
> thing moves faster.

> Hubble has also shown that the Doppler effect would shift the frequency
> lower as velocity of the retreating thing increases. Shift the frequency
> low enough and the wave is no longer described as light but may be
> classified as a millimeter radio wave.

> Best regards, Richard Harrison, KB5WZI

To be accererating, there would have to be a force .

Where would this force be coming from and what pray tell is directing
it?

The speed of light is a constant in all reference frames. If a light
source were to be moving at the speed of light away from an observer,
an impossiblity in itself, the light would still be moving at c towards
the observer.

--
Jim Pennino

Remove -spam-sux to reply.

## 74. Re: NEWS - Researchers invent antenna for light

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-03 13:04:08 UTC
From: richardharrison@webtv.net
Message-ID: <11144-415FF8C8-3@storefull-3258.bay.webtv.net>
Source record: 88868

Richard Clark wrote:
"To bring this paradox to a conclusion he (E.A.Poe) offers, for our being able to view this totality of solar flux as a continuous sheet of luminosity requires that the universe must have existed forever."

It is now assumed that space and time began maybe 15 or 20 billion years ago. Poe may be wrong.

Albert Einstein speculated that the speed of light is a universal constant. He may be wrong.

Best regards, Richard Harrison, KB5WZI

## 75. Re: Mobile HF antenna melting....

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-03 13:13:59 UTC
From: pete365 <pete365@yahoo.com>
Message-ID: <415FFB17.7070900@yahoo.com>
Source record: 88869

I didn't think that the wip would go that far down. I guess what I'm asking , is it normal for the coil to get hot when I go key down for a couple of minutes. Has anyone had one of these apart? what kind of coil is it? Pete N1AGV

'Doc wrote:

>
> Pete,
> By any chance was the whip/upper portion of the antenna extended
> down into the coil? As in a 'core' in the coil which shouldn't be
> there, that sort of thing?
> 'Doc

## 76. Re: Mobile HF antenna melting....

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-03 14:23:01 UTC
From: Tom Ring <news0000@taring.org>
Message-ID: <41600b46$0$91008$39cecf19@news.twtelecom.net>
Source record: 88870

Richard Clark wrote:

>
> Follow the heat (literally). Wait for things to cool down and then
> key-down for a shorter period and try to narrow in on that part that
> warms first. Try one of those fish tank thermometers that is a sticky
> press on type using liquid crystal phase shifting displays (AKA mood
> ring technology). The heat is where the resistance is (and wire does
> not often qualify except at a poor connection point).
>

A very handy device for tracking this down would be an infrared thermometer. Radio Shack sells one for between 30 and 50 dollars, depending on whether it's on sale. It covers 0F to 400F, switchable to C or F, and when held close to an object will measure the temperature of a dime sized area or less.

I have never used mine for this purpose, but I have used it to check the temperature of transistor pairs in RF amplifiers as well as heat sinks in PCs. They are also handy to see if auto engine parts have cooled enough to work on.

tom
K0TAR

## 77. Re: NEWS - Researchers invent antenna for light

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-03 15:37:39 UTC
From: jimp@specsol-spam-sux.com
Message-ID: <cjp6c3$o1u$1@mail.specsol.com>
Source record: 88771

Richard Harrison <richardharrison@webtv.net> wrote:
> Richard Clark wrote:
> "To bring this paradox to a conclusion he (E.A.Poe) offers, for our
> being able to view this totality of solar flux as a continuous sheet of
> luminosity requires that the universe must have existed forever."

> It is now assumed that space and time began maybe 15 or 20 billion years
> ago. Poe may be wrong.

> Albert Einstein speculated that the speed of light is a universal
> constant. He may be wrong.

> Best regards, Richard Harrison, KB5WZI

There has never been a contradictory observation that the speed of light
is other than a constant, ever.

--
Jim Pennino

Remove -spam-sux to reply.

## 78. Re: NEWS - Researchers invent antenna for light

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-03 15:51:21 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <3b30m0pbglsa7j7hfbl1b733cdjuvdrelk@4ax.com>
Source record: 88772

On Sun, 3 Oct 2004 08:04:08 -0500, richardharrison@webtv.net (Richard Harrison) wrote:

>It is now assumed that space and time began maybe 15 or 20 billion years >ago. Poe may be wrong.

Hi Richard,

Poe got it right. The greater portion of the night sky is as black now as it was in Poe's time - nothing has changed to render Poe's assessment incorrect.

" My general proposition, then, is this: -- In the Original Unity of the First Thing lies the Secondary Cause of All Things, with the Germ of their Inevitable Annihilation.

Poe is describing both concepts we now proclaim as the Big Bang, AND the Big Crunch.

"In speaking of what is ordinarily implied by the expression, 'Universe,' I shall take a phrase of limitation -- 'the Universe of stars.' Why this distinction is considered necessary, will be seen in the sequel.

"But even of treatises on the really limited, although always assumed as the un limited, Universe of stars, I know none in which a survey, even of this limited Universe, is so taken as to warrant deductions from its individuality."
...
" It seems to me that, in aiming at this latter effect, and, through it, at the consequences -- the conclusions -- the suggestions -- the speculations -- or, if nothing better offer itself, the mere guesses which may result from it -- we require something like a mental gyration on the heel. We need so rapid a revolution of all things about the central point of sight that, while the minutiae vanish altogether, even the more conspicuous objects become blended into one. Among the vanishing minutiae, in a survey of this kind, would be all exclusively terrestrial matters. The Earth would be considered in its planetary relations alone. A man, in this view, becomes mankind; mankind a member of the cosmical family of Intelligences."

These paragraphs introduce a literary device used by Poe to discuss the topic, a message found in a floating bottle - from the future:

" And now, before proceeding to our subject proper, let me beg the reader's attention to an extract or two from a somewhat remarkable

letter, which appears to have been found corked in a bottle and floating on the Mare Tenebrarum - an ocean well described by the Nubian geographer, Ptolemy Hephestion, but little frequented in modern days unless by the Transcendentalists and some other divers for crotchets. The date of this letter, I confess, surprises me even more particularly than its contents; for it seems to have been written in the year Two thousand eight hundred and forty-eight. As for the passages I am about to transcribe, they, I fancy, will speak for themselves."

I will pause here in anticipation of further inquiry. ;-)

73's
Richard Clark, KB7QHC

## 79. Re: NEWS - Researchers invent antenna for light

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-03 17:12:06 UTC
From: richardharrison@webtv.net
Message-ID: <19917-416032E6-78@storefull-3256.bay.webtv.net>
Source record: 88774

Jim Pennino wrote:
"There has never been a contradictory observation that the speed of light is other than a constant, ever."

A.A. Michelson and E.W.Morley in 1881 measured the speed of light in the direction of the Earth and the speed of light at right angles to the Earth`s motion. No difference was found.

Light does have different speeds in different media. This causes light to bend when passing from one medium to another. The "speed of light" is through space or a vacuum. The more a substance bends light, the higher its refractive index.

I said Einstein may be wrong. I should have added that I don`t think so.

Best regards, Richard Harrison, KB5WZI

## 80. Re: President George Bush Assasinated <--- VIRUS

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-03 17:21:18 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cjpcee$a13$1@hercules.btinternet.com>
Source record: 88773
Cross-posted to: rec.radio.amateur,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew

```
> This was a virus.
====================
Next time try a different strain.
```

## 81. Re: NEWS - Researchers invent antenna for light

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-03 17:35:49 UTC
From: jimp@specsol-spam-sux.com
Message-ID: <cjpd9l$e21$1@mail.specsol.com>
Source record: 88775

Richard Harrison <richardharrison@webtv.net> wrote:
> Jim Pennino wrote:
> "There has never been a contradictory observation that the speed of
> light is other than a constant, ever."

> A.A. Michelson and E.W.Morley in 1881 measured the speed of light in the
> direction of the Earth and the speed of light at right angles to the
> Earth`s motion. No difference was found.

> Light does have different speeds in different media. This causes light
> to bend when passing from one medium to another. The "speed of light" is
> through space or a vacuum. The more a substance bends light, the higher
> its refractive index.

> I said Einstein may be wrong. I should have added that I don`t think so.

> Best regards, Richard Harrison, KB5WZI

You might want to read the following:

http://scienceworld.wolfram.com/physics/SpeedofLight.html

and maybe:

http://scienceworld.wolfram.com/physics/Michelson-MorleyExperiment.html

--
Jim Pennino

Remove -spam-sux to reply.

## 82. Re: President George Bush Assasinated <--- VIRUS

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-03 18:04:58 UTC
From: "H. Adam Stevens, NQ5H" <NQ5H@ARRL.net>
Message-ID: <10m0frj88unmmd4@corp.supernews.com>
Source record: 88776

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:cjpcee$a13$1@hercules.btinternet.com...
> > This was a virus.
> ====================
> Next time try a different strain.
>
>
Nice shootin' Reg.

## 83. Re: NEWS - Researchers invent antenna for light

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-03 18:38:16 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41604732$1_4@corp.newsgroups.com>
Source record: 88777

Jim Pennino wrote:
> "There has never been a contradictory observation that the speed of
> light is other than a constant, ever."

Heh, heh, and nobody has ever gotten *exactly* the same results. :-)

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

## 84. Re: NEWS - Researchers invent antenna for light

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-03 18:43:32 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41604873_4@corp.newsgroups.com>
Source record: 88778

Richard Harrison wrote:
> I said Einstein may be wrong. I should have added that I don`t think so.

I predict that Einstein was wrong by the same percentage that Newton
was wrong. After all, physics is a converging series. :-) In 100 years,
I predict that Einstein's theories will be just as obsolete as Newton's
theories are now. 'Course, my great-great-grandson will have to collect
any bets.
--
73, Cecil, W5DXP

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http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

## 85. Re: NEWS - Researchers invent antenna for light

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-03 19:28:19 UTC
From: jimp@specsol-spam-sux.com
Message-ID: <cjpjsj$46v$1@mail.specsol.com>
Source record: 88779

Cecil Moore <w5dxp@hotmail.com> wrote:
> Richard Harrison wrote:
> > I said Einstein may be wrong. I should have added that I don`t think so.

> I predict that Einstein was wrong by the same percentage that Newton
> was wrong. After all, physics is a converging series. :-) In 100 years,
> I predict that Einstein's theories will be just as obsolete as Newton's
> theories are now. 'Course, my great-great-grandson will have to collect
> any bets.
> --
> 73, Cecil, W5DXP

> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> -----== Over 100,000 Newsgroups - 19 Different Servers! =-----

Perhaps you might read:

http://scienceworld.wolfram.com/biography/Einstein.html

and tell us where there's a place for a "percentage" where Einstein might
have been wrong.

--
Jim Pennino

Remove -spam-sux to reply.

## 86. Re: NEWS - Researchers invent antenna for light

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-03 19:46:37 UTC
From: jimp@specsol-spam-sux.com
Message-ID: <cjpkut$8cc$1@mail.specsol.com>
Source record: 88780

Cecil Moore <w5dxp@hotmail.com> wrote:
> Jim Pennino wrote:
> > "There has never been a contradictory observation that the speed of
> > light is other than a constant, ever."

> Heh, heh, and nobody has ever gotten *exactly* the same results. :-)

> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> -----== Over 100,000 Newsgroups - 19 Different Servers! =-----

Or to put it in more realistic terms, as instrumentation gets better
and better, the value of c gets more decimal points.

By 1947 it was to +/- 3 km/s, in 1958 +/- 0.1, and by 1973 +/- 0.001.

To put things in perspective, +/- 0.001 km/s is an error of .000000000007%.

--
Jim Pennino

Remove -spam-sux to reply.

## 87. Re: NEWS - Researchers invent antenna for light

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-03 19:56:39 UTC
From: "Dogs do not play dice..." <Kjsh37373@Hotmail.com>
Message-ID: <4160597a@post.usenet.com>
Source record: 88781

**** Post for FREE via your newsreader at post.usenet.com ****

> Jim Pennino
> ...tell us where there's a place for
> a "percentage" where Einstein might
> have been wrong.

Al said: "God does not play dice..."

Current Truth is: "He not only plays dice, he sometimes throws them where
even He can't see them."

-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
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## 88. Re: NEWS - Researchers invent antenna for light

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-03 21:36:42 UTC
From: jimp@specsol-spam-sux.com
Message-ID: <cjprda$q1h$1@mail.specsol.com>
Source record: 88782

Dogs do not play dice... <Kjsh37373@hotmail.com> wrote:
> **** Post for FREE via your newsreader at post.usenet.com ****

> > Jim Pennino
> > ...tell us where there's a place for
> > a "percentage" where Einstein might
> > have been wrong.

> Al said: "God does not play dice..."

> Current Truth is: "He not only plays dice, he sometimes throws them where
> even He can't see them."

Actually, what he said was "God does not play dice with the world.".

He also said "Nature shows us only the tail of the lion. But I do not
doubt that the lion belongs to it even though he cannot at once reveal
himself because of his enormous size".

--
Jim Pennino

Remove -spam-sux to reply.

## 89. Owner's manual for the discontinued Radio Shack 15-1853 loop

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-03 22:15:00 UTC
From: usmcemen@hotmail.com
Message-ID: <81932e5c.0410031415.55e9ce73@posting.google.com>
Source record: 88783
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

Greetings, all--

I just purchased the very last in-store stock of the 15-1853 here in the DC area ($10 clearance) -- unfortunately, it was the store's old floor display model, which was missing its box, the manual, and the wire to run to the external AM and ground connections on the back of my new GE SRIII.

Since the 15-1853 has long since been discontinued, the Radio Shack website no longer posts the online version of its owner's manual, which I'm trying to track down (I need it for schematics and/or tips on the optimal cable I'll need to run from the loop to the radio, plus it's just my personal habit to always have owner's manuals around 'just in case'). I also tried the 'Wayback Machine' at archive.org to see if I could access the manual from earlier versions of the Radio Shack website, but no dice...

If anyone happens to have a copy of the 15-1853's online owner's manual on hand, I'd certainly be most appreciative to receive a copy via e-mail.

Many thanks!

- Cez.

## 90. Radial installation method

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-03 22:19:13 UTC
From: Mike Coslo <mcoslo@adelphia.net>
Message-ID: <lrCdne8ikY9A5_3cRVn-uA@adelphia.com>
Source record: 88784

I just got done installing radials for a new antenna, and was distressed at the amount of time it was taking.

I was looking at some power tools that might speed up the trenching process. Power edgers looked promising, but were 90 - 100 dollars for electrical models, and more for the gas powered ones.

Finally I hit on something. I bought an inexpensive electric chainsaw. I'm sure the neighbors thought I was a lunatic, but trenching for the radials took surprisingly little time. So I laid all my radials in one afternoon. It would have taken even less time if there had been an extra person around to help.

Caveats:

This is of course *dangerous* - don't ever do it!!! Chainsaws are sharp and nasty.

It wore out the Chainsaw chain. That really isn't a big deal. I'm just going to save it for the next time I need to trench radials.

The chainsaw needs washed and lubed after trenching.

But it was quick. The radials are in, the post for the vertical is in and concrete setting as I write.

Just thought I'd share this with the group. I never saw anyone else saying they did anything similar, so I either stumbled on something, or I'm completely whacked! ;^)

- Mike KB3EIA -

## 91. Re: Owner's manual for the discontinued Radio Shack 15-1853 loop

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-03 22:20:41 UTC
From: Ron Hardin <rhhardin@mindspring.com>
Message-ID: <41607B3A.4443@mindspring.com>
Source record: 88785
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

Just put it next to the SRIII at one end, with its axis aligned with
the long dimension of the SRIII. Tune for max noise at each frequency.

Put both radio and loop on a lazy susan, if you want more variation.

You won't notice much change at night, but there's a good deal in
the daytime.

Actually the loop works better (improves more) with a smaller radio;
the SRIII is already pretty good.

The loop is an impedance matcher. Once the radio is hearing propagating
noise (which the SRIII almost does on its own) further improvements
don't do you any good, since they would only enhance both signal
and noise. But until that, you're beating out internal receiver
noise by raising both external noise and external signal.

At night, you're hearing a thousand signals on every frequency,
so sensitivity isn't really the problem; and thus the loop doesn't
seem to be helping much at night. It's hard to tell it's even there.
--
Ron Hardin
rhhardin@mindspring.com

On the internet, nobody knows you're a jerk.

## 92. Re: NEWS - Researchers invent antenna for light

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-03 22:22:17 UTC
From: Mike Coslo <mcoslo@adelphia.net>
Message-ID: <-sudnbK3_soI5v3cRVn-sA@adelphia.com>
Source record: 88786

Richard Clark wrote:

> On Sat, 2 Oct 2004 23:01:27 -0500, richardharrison@webtv.net (Richard
> Harrison) wrote:
>
>
>>Richard Clark wrote:
>>"This paradox (differing light intensities in various directions) was
>>solved by?"
>>
>>There may be a time shortage too as Einstein has shown time slows as a
>>thing moves faster.
>
>
> A close and suggestive answer.
>
> Hi All,
>
> Well, it is notable that no "astronomer" got this one right ;-)
>
> I will 'fess up in that it was a trick question because it contained a
> ringer (one that three out of three sprung for).
>
> However two out of three got the extra credit question (Olber's
> Paradox). No doubt second tier, and to date silent, observers may
> chime in with "authority." ;-)
>
> No, Hubble may have described an answer that satisfies the paradox,
> however the FIRST (1848) and ACCURATE response to this issue was
> written by Edgar Allen Poe in "Eureka!" what he calls a prose poem
> dedicated to Alexander von Humboldt:
> "Were the succession of stars endless, then the background of the
> sky would present us an uniform luminosity, like that displayed by
> the Galaxy -- since there could be absolutely no point, in all
> that background, at which would not exist a star."

Awesome, Richard! Can this monograph be found online?

- Mike KB3EIA -

## 93. Re: NEWS - Researchers invent antenna for light

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-03 22:24:03 UTC
From: Mike Coslo <mcoslo@adelphia.net>
Message-ID: <-sudna23_spj5v3cRVn-sA@adelphia.com>
Source record: 88787

Richard Harrison wrote:

> Richard Clark wrote:
> "To bring this paradox to a conclusion he (E.A.Poe) offers, for our
> being able to view this totality of solar flux as a continuous sheet of
> luminosity requires that the universe must have existed forever."
>
> It is now assumed that space and time began maybe 15 or 20 billion years
> ago. Poe may be wrong.
>
> Albert Einstein speculated that the speed of light is a universal
> constant. He may be wrong.

Yes, Light slows down and speeds up so that fundamentalist
interpretations of the bible can be correct. Oy!

- Mike KB3EIA -

## 94. Re: NEWS - Researchers invent antenna for light

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-03 22:44:16 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <l001m0d6d6jcfile737uh8q1m3bfs54vof@4ax.com>
Source record: 88788

On Sun, 03 Oct 2004 18:22:17 -0400, Mike Coslo <mcoslo@adelphia.net>
wrote:

> Awesome, Richard! Can this monograph be found online?

Hi Mike,

After some rummaging:
http://xroads.virginia.edu/~HYPER/poe/eureka.html

73's and enjoy,
Richard Clark, KB7QHC

## 95. Re: Radial installation method

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-03 23:12:28 UTC
From: Irv Finkleman <finkirv@shaw.ca>
Message-ID: <41608767.24A3AF8F@shaw.ca>
Source record: 88789

Mike Coslo wrote:
>
> I just got done installing radials for a new antenna, and was distressed
> at the amount of time it was taking.
>
> I was looking at some power tools that might speed up the trenching
> process. Power edgers looked promising, but were 90 - 100 dollars for
> electrical models, and more for the gas powered ones.
>
> Finally I hit on something. I bought an inexpensive electric chainsaw.
> I'm sure the neighbors thought I was a lunatic, but trenching for the
> radials took surprisingly little time. So I laid all my radials in one
> afternoon. It would have taken even less time if there had been an extra
> person around to help.
>
> Caveats:
>
> This is of course *dangerous* - don't ever do it!!! Chainsaws are sharp
> and nasty.
>
> It wore out the Chainsaw chain. That really isn't a big deal. I'm just
> going to save it for the next time I need to trench radials.
>
> The chainsaw needs washed and lubed after trenching.
>
> But it was quick. The radials are in, the post for the vertical is in
> and concrete setting as I write.
>
> Just thought I'd share this with the group. I never saw anyone else
> saying they did anything similar, so I either stumbled on something, or
> I'm completely whacked! ;^)
>
> - Mike KB3EIA -

I used a pizza cutter! Still use it for pizza too but have to
press harder!

Irv VE6BP
--
---
Diagnosed Type II Diabetes March 5 2001
Beating it with diet and exercise!
297/215/210 (to be revised lower)
58"/43"(!)/44" (already lower too!)
---

Visit my HomePage at http://members.shaw.ca/finkirv/index.html
Visit my Baby Sofia website at http://members.shaw.ca/finkirv4/index.htm
Visit my OLDTIMERS website at http://members.shaw.ca/finkirv5/index.htm
---
Irv Finkleman,
Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
Calgary, Alberta, Canada

## 96. Re: Radial installation method

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-03 23:18:23 UTC
From: Wes Stewart <n7ws_@_yahoo.com>
Message-ID: <rq11m0luhiftvdcfjvkhdala8bbavokn99@4ax.com>
Source record: 88790

On Sun, 03 Oct 2004 18:19:13 -0400, Mike Coslo <mcoslo@adelphia.net>
wrote:

[Radial installing method snipped]
|
| Just thought I'd share this with the group. I never saw anyone else
|saying they did anything similar, so I either stumbled on something, or
|I'm completely whacked! ;^)

I don't think that will work in my situation:

http://www.qsl.net/n7ws/N7WS_Vert_1.jpg

Eveything in the picture has thorns, spines, stickers or a rattlesnake
coiled up under it.

And yes, there are radials running under all of that stuff and I'm
standing over radials where I took the picture.

Quiz: How did I do it?

## 97. Reg's programs and Windows-XP

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-03 23:24:09 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cjq1mp$gtm$1@hercules.btinternet.com>
Source record: 88791

If your computer's operating system is Windows-XP some of you may have a
problem with running my programs full-screen. If so -

Right click on the program's Icon.
Click Properties.
Click Screen.
Click Full Screen.
Click Apply.
Click OK.

and all should be fine.

If you have a lot of programs in a common folder there appears to be no way
of changing all of them to full-screen simultaneously. You will have to do
it one by one. (Unless somebody can discover an easier way.)

I have two machines, Windows-98 and Windows-XP. If a problem should arise
with any other Windows versions please let me know.
----
.....................................................
Regards from Reg, G4FGQ
For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp
.....................................................

## 98. Re: Mobile HF antenna melting....

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-04 00:03:03 UTC
From: Jimmie <Gfender@carolina.rr.com>
Message-ID: <Xq08d.19399$n%3.2690855@twister.southeast.rr.com>
Source record: 88792

Older cam corders worked in infra-red too. I have used this to find hot spots on PC boards. Sometimes the bad IC lights up like a light bulb. Same principal should work here. I understand newer ones are not IR sensitive. This is because people were installing IR filters on them and shooting pictures at the mall and work. Makes one look like they have no clothes on.

"Tom Ring" <news0000@taring.org> wrote in message
news:41600b46$0$91008$39cecf19@news.twtelecom.net...
> Richard Clark wrote:
>
> >
> > Follow the heat (literally). Wait for things to cool down and then
> > key-down for a shorter period and try to narrow in on that part that
> > warms first. Try one of those fish tank thermometers that is a sticky
> > press on type using liquid crystal phase shifting displays (AKA mood
> > ring technology). The heat is where the resistance is (and wire does
> > not often qualify except at a poor connection point).
> >
>
> A very handy device for tracking this down would be an infrared
> thermometer. Radio Shack sells one for between 30 and 50 dollars,
> depending on whether it's on sale. It covers 0F to 400F, switchable to
> C or F, and when held close to an object will measure the temperature of
> a dime sized area or less.
>
> I have never used mine for this purpose, but I have used it to check the
> temperature of transistor pairs in RF amplifiers as well as heat sinks
> in PCs. They are also handy to see if auto engine parts have cooled
> enough to work on.
>
> tom
> K0TAR
>

## 99. Re: Radial installation method

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-04 00:30:57 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <vP08d.24507$yp.3362@bignews1.bellsouth.net>
Source record: 88793

"Mike Coslo" <mcoslo@adelphia.net> wrote in message
news:lrCdne8ikY9A5_3cRVn-uA@adelphia.com...
> I just got done installing radials for a new antenna, and was distressed
> at the amount of time it was taking.
>
> I was looking at some power tools that might speed up the trenching
> process. Power edgers looked promising, but were 90 - 100 dollars for
> electrical models, and more for the gas powered ones.
>
> Finally I hit on something. I bought an inexpensive electric chainsaw.
> I'm sure the neighbors thought I was a lunatic, but trenching for the
> radials took surprisingly little time. So I laid all my radials in one
> afternoon. It would have taken even less time if there had been an extra
> person around to help.
>
> Caveats:
>
> This is of course *dangerous* - don't ever do it!!! Chainsaws are sharp
> and nasty.
>
> It wore out the Chainsaw chain. That really isn't a big deal. I'm just
> going to save it for the next time I need to trench radials.
>
> The chainsaw needs washed and lubed after trenching.
>
> But it was quick. The radials are in, the post for the vertical is in
> and concrete setting as I write.
>
> Just thought I'd share this with the group. I never saw anyone else
> saying they did anything similar, so I either stumbled on something, or
> I'm completely whacked! ;^)
>
> - Mike KB3EIA -
>

Bravo! Thanks for the new addition for our bag of tricks.
The cost of a new chain is nothing compared to the labor savings.
How's the back from bending over that long?

---
Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.770 / Virus Database: 517 - Release Date: 9/27/2004

## 100. Re: Mobile HF antenna melting....

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-04 01:57:57 UTC
From: Crazy George <muNnscOh@attSglPobaAl.nMet>
Message-ID: <4160b135_1@news1.prserv.net>
Source record: 88794

This is strictly a guess, but I tried the Hustler on 75 meters when it first came out back in the 50s. I quickly
developed the impression that the principal impedance matching device was the lossy coil. VSWR was good, signal reports
were lousy. Needless to say, I went back to a bugcatcher and a base matching coil.

--
Crazy George
Remove N O and S P A M imbedded in return address
"pete365" <pete365@yahoo.com> wrote in message news:415FFB17.7070900@yahoo.com...
> I didn't think that the wip would go that far down. I guess what I'm
> asking , is it normal for the coil to get hot when I go key down for a
> couple of minutes. Has anyone had one of these apart? what kind of coil
> is it? Pete N1AGV
>
> 'Doc wrote:
>
> >
> > Pete,
> > By any chance was the whip/upper portion of the antenna extended
> > down into the coil? As in a 'core' in the coil which shouldn't be
> > there, that sort of thing?
> > 'Doc
>
>

## 101. Re: Radial installation method

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-04 02:19:50 UTC
From: Mike Coslo <mcoslo@adelphia.net>
Message-ID: <1_qdnbmBW47ZLv3cRVn-gA@adelphia.com>
Source record: 88795

Wes Stewart wrote:

> On Sun, 03 Oct 2004 18:19:13 -0400, Mike Coslo <mcoslo@adelphia.net>
> wrote:
>
> [Radial installing method snipped]
> |
> | Just thought I'd share this with the group. I never saw anyone else
> |saying they did anything similar, so I either stumbled on something, or
> |I'm completely whacked! ;^)
>
> I don't think that will work in my situation:
>
> http://www.qsl.net/n7ws/N7WS_Vert_1.jpg
>
> Eveything in the picture has thorns, spines, stickers or a rattlesnake
> coiled up under it.
>
> And yes, there are radials running under all of that stuff and I'm
> standing over radials where I took the picture.
>
>
> Quiz: How did I do it?

I'm stumped. Beautiful location, though. I bet you don't have to worry
about RFI'ing the neighbors! 8^)

- mike KB3EIA -

## 102. Re: Radial installation method

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-04 02:25:22 UTC
From: Mike Coslo <mcoslo@adelphia.net>
Message-ID: <KYSdnfd9Yt0NKf3cRVn-ug@adelphia.com>
Source record: 88796

Hal Rosser wrote:

> "Mike Coslo" <mcoslo@adelphia.net> wrote in message
> news:lrCdne8ikY9A5_3cRVn-uA@adelphia.com...
>
>>I just got done installing radials for a new antenna, and was distressed
>>at the amount of time it was taking.
>>
>>I was looking at some power tools that might speed up the trenching
>>process. Power edgers looked promising, but were 90 - 100 dollars for
>>electrical models, and more for the gas powered ones.
>>
>>Finally I hit on something. I bought an inexpensive electric chainsaw.
>>I'm sure the neighbors thought I was a lunatic, but trenching for the
>>radials took surprisingly little time. So I laid all my radials in one
>>afternoon. It would have taken even less time if there had been an extra
>>person around to help.
>>
>>Caveats:
>>
>>This is of course *dangerous* - don't ever do it!!! Chainsaws are sharp
>>and nasty.
>>
>>It wore out the Chainsaw chain. That really isn't a big deal. I'm just
>>going to save it for the next time I need to trench radials.
>>
>>The chainsaw needs washed and lubed after trenching.
>>
>>But it was quick. The radials are in, the post for the vertical is in
>>and concrete setting as I write.
>>
>>Just thought I'd share this with the group. I never saw anyone else
>>saying they did anything similar, so I either stumbled on something, or
>>I'm completely whacked! ;^)
>>
>>- Mike KB3EIA -
>>
>
>
> Bravo! Thanks for the new addition for our bag of tricks.
> The cost of a new chain is nothing compared to the labor savings.
> How's the back from bending over that long?

The back is getting a bit sore as the evening wears on. I can only
guess that it would have been worse with the other methods form the time

I would have had to be bending.

One unexpected sore part is the fingers of my left hand got their nails worn down and the skin is tender now - kind of like when a person first plays the guitar. Probably from pushing and guiding the radial wires on the ground as I pushed them under. Gloves for me the next time!

- Mike KB3EIA -

## 103. Re: NEWS - Researchers invent antenna for light

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-04 02:38:21 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <4160b7b9$1_1@corp.newsgroups.com>
Source record: 88797

Dogs do not play dice... wrote:
> Al said: "God does not play dice..."
>
> Current Truth is: "He not only plays dice, he sometimes throws them where
> even He can't see them."

So that's how it is possible for an omniscient God to give
free will to human beings?

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 100,000 Newsgroups - 19 Different Servers! =-----

## 104. Re: Ground connections to a tower

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-04 02:45:48 UTC
From: TimPerry <timperry@noaspamadelphia.net>
Message-ID: <n76dnYT2hqf-JP3cRVn-jA@adelphia.com>
Source record: 88798

news:<5wm7d.13182$Qv5.8412@newssvr33.news.prodigy.com>...
> > > Bill Ogden wrote:
> > >
> > > > I have a TX455 tower that I am beginning to ground and I could use
> some
> > > > collective experience of the group. This is a 55-foot tower in a
> location
> > > > not especially prone to lightning. I am trying to be reasonable
> without
> > > > going overboard on grounding.
> > > >
> > > > 1. Where might I obtain the 1-inch nuts for the standard UST
concrete
> stubs?
> > > > And stainless steel washers to match? My local Home-Depot type
places
> seem
> > > > to stop at the 3/4-inch sizes.
> > > >

it probably is not the cheapest, but http://www.andrew.com/catalog38/ has pretty much what's needed in the way of grounding kits and tower hardware.

most radio and TV stations seem have some of that stuff laying around left over from an install. odds and ends of hardware and clamps. got any buddies that are broadcasters?

## 105. Re: Already 4 years !

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-04 04:16:13 UTC
From: Chuck Taylor <not@thisaddress>
Message-ID: <wZGdnTD8Haw1U_3cRVn-sA@speakeasy.net>
Source record: 88799
Cross-posted to: alt.sci.seti,rec.radio.amateur.antenna,sci.astro.amateur

> Indeed, it's LUXORION, already 4 years ; -)
> http://www.astrosurf.com/lombry
> Partner of the French site Futura-Sciences, http://www.futura-sciences.com/

Congrats!

I hadn't been there before and it looks great!

## 106. Re: NEWS - Researchers invent antenna for light

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-04 04:23:01 UTC
From: richardharrison@webtv.net
Message-ID: <19919-4160D025-32@storefull-3256.bay.webtv.net>
Source record: 88800

Richard Clark wrote:
"Poe got it right."

I had no idea Poe had such a scientific interest. Poe no doubt got many things right but his observations on the universe are so extensive and written so long ago that it is unlikely that some errors can`t be found. Poe`s scientific study is impressive and he got right much of what he wrote. Where did I get the idea he spent much of his life spaced out on drugs?

In the years since Poe, much has been added to scientific knowledge.

The antenna section of "Transmission Lines, Antennas, and Wave Guides" by King, Mimno, and Wing, was written by Ronald W.P. King. On page 73 he gives the dielectric constant of free-space as:

Epsilon o = 8.85 times 10 to the minus 12 farad / m.

King also gives the permeability of free-space as:

Mu o = 4 pi times 10 to the minus 7 henries / m

From these, King calculates the velocity of light (vC).

vC = 1 / sq.rt. Mu o times Epsilon o = 3 times 10 to the 8th power m / sec.

On page 117, King elaborates, saying: The existence of a characteristic resistance for electromagnetic effects is just as mysterious (no volts and amps in the wave itself), but no more so than the existence of the finite velocity---3 times 10 to the 8th power m / sec.

---Physical science seelks to provide a mathematical mechanism for predicting observable effects about nature."

Best regards, Richard Harrison, KB5WZI

## 107. OT but this is great plitical satire

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-04 04:32:48 UTC
From: Jimmie <Gfender@carolina.rr.com>
Message-ID: <Qn48d.51917$ci3.2403932@twister.southeast.rr.com>
Source record: 88801

www.jibjab.com
best political satire I have seen.

## 108. Re: NEWS - Researchers invent antenna for light

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-04 05:51:54 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <15l1m0hvm4492m4u03ja7lo3tclhtn9b1k@4ax.com>
Source record: 88802

On Sun, 3 Oct 2004 23:23:01 -0500, richardharrison@webtv.net (Richard Harrison) wrote:

>Richard Clark wrote:
>"Poe got it right."
>
>I had no idea Poe had such a scientific interest. Poe no doubt got many
>things right but his observations on the universe are so extensive and
>written so long ago that it is unlikely that some errors can`t be found.

Apparently you have followed the link I've offered to Mike.

>Poe`s scientific study is impressive and he got right much of what he
>wrote. Where did I get the idea he spent much of his life spaced out on
>drugs?

Hi Richard,

This may be attributable to his contemporaries, certainly. After-all Coleridge and buddies tasted the popular social drug, Hashish.

However, Poe's "drunkenness" was a legend based upon his death, which recent theories dismiss through rather abstract research (and I am rather vague as to them myself, having seen them in fleeting reference some years ago). Either way, there is very little substantiation as to the cause of his death except he was found collapsed in the street. He died about a year after this work I have offered.

>In the years since Poe, much has been added to scientific knowledge.

Perhaps, but Poe's contribution is not from demonstration, as he would say, but rather through knowing the truth - an artistic intuition. His style directly attacks the notion of exactitudes, especially when they are eclipsed by later, more ponderous exactitudes. This is especially shown in his wry commentary through the fictitious future correspondent of the message in the bottle:

"'Do you know that it is scarcely more than eight or nine hundred years ago since the metaphysicians first consented to relieve the people of the singular fancy that there exist but two practicable roads to Truth? Believe it if you can! It appears, however, that long, long ago, in the night of Time, there lived a Turkish philosopher called Aries and surnamed Tottle.' [Here, possibly, the letter-writer means Aristotle; the best names are wretchedly corrupted in two or three thousand years.]"
...
"Well, Aries Tottle flourished supreme, until the advent of one

Hog, surnamed 'the Ettrick shepherd,' who preached an entirely different system, which he called the a posteriori or in ductive. His plan referred altogether to sensation. He proceeded by observing, analyzing, and classifying facts -- instantiae Naturae, as they were somewhat affectedly called -- and arranging them into general laws. In a word, while the mode of Aries rested on noumena, that of Hog depended on phenomena; and so great was the admiration excited by this latter system that, at its first introduction, Aries fell into general disrepute. Finally, however, he recovered ground, and was permitted to divide the empire of Philosophy with his more modern rival: -- the savans contenting themselves with proscribing all other competitors, past, present, and to come; putting an end to all controversy on the topic by the promulgation of a Median law, to the effect that the Aristotelian and Baconian roads are, and of right ought to be, the sole possible avenues to knowledge: -- 'Baconian,' you must know, my dear friend," adds the letter-writer at this point, "was an adjective invented as equivalent to Hog-ian, and at the same time more dignified and euphonious."

The style is rather dry and extended for modern readers, so I will offer a shorthand of this introductory matter that Poe offers. He is simply mocking the philosophers, Aristotle (Aries, the Ram) and Bacon (Hog, the pig), or rather mocking those who drag their corpses out to embellish their own impoverished theories (AKA, the "Transcendentalists" or our Hash eaters already mentioned):

"The error of our progenitors was quite analogous with that of the wiseacre who fancies he must necessarily see an object the more distinctly, the more closely he holds it to his eyes. They blinded themselves, too, with the impalpable, titillating Scotch snuff of detail; and thus the boasted facts of the Hog-ites were by no means always facts -- a point of little importance but for the assumption that they always were. The vital taint, however, in Baconianism -- its most lamentable fount of error -- lay in its tendency to throw power and consideration into the hands of merely perceptive men -- of those inter-Tritonic minnows, the microscopical savans -- the diggers and pedlers of minute facts, for the most part in physical science -- facts all of which they retailed at the same price upon the highway; their value depending, it was supposed, simply upon the fact of their fact, without reference to their applicability or inapplicability in the development of those ultimate and only legitimate facts, called Law.

"Than the persons" -- the letter goes on to say -- "than the persons thus suddenly elevated by the Hog-ian philosophy into a station for which they were unfitted -- thus transferred from the sculleries into the parlors of Science -- from its pantries into its pulpits -- than these individuals a more intolerant -- a more intolerable set of bigots and tyrants never existed on the face of

the earth. Their creed, their text and their sermon were, alike,
the one word 'fact' -- but, for the most part, even of this one
word, they knew not even the meaning.

A sweet vintage of writing that makes the grape pale.

73's
Richard Clark, KB7QHC

## 109. Linear Loading Loop Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-04 05:53:30 UTC
From: theplanters95@aol.comnospam
Message-ID: <20041004015330.19211.00001959@mb-m03.aol.com>
Source record: 88803

The good news is that I have no antenna restrictions. The bad news, is that I am on a small lot. The best HF (75m-10m) fitting antenna seems to be a random length loop around the eaves of the house. Would it be better to linear load the loop? That is, instead of using a single wire to construct the loop, to use TV twinlead?

Or would a 2 or 3 multiturn loop be practical? That is run 2 or 3 turns of single wire around the house?

I am looking for a NVIS antenna for 75m and 40m and a dx antenna for 20m-10m. Power would be 100 watts or less. Feed would either be ladder line to an antenna tuner or ladder line to a 4:1 remote balun with a short length of coax to the antenna tuner.

Any suggestions or comments?

Randy Ka4nma

## 110. Re: NEWS - Researchers invent antenna for light

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-04 06:07:00 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <VL58d.121127$9Y5.78278@fed1read02>
Source record: 88804

<jimp@specsol-spam-sux.com> wrote in message
news:cjprda$q1h$1@mail.specsol.com...
> Dogs do not play dice... <Kjsh37373@hotmail.com> wrote:
>> **** Post for FREE via your newsreader at post.usenet.com ****
>
>> > Jim Pennino
>> > ...tell us where there's a place for
>> > a "percentage" where Einstein might
>> > have been wrong.
>
>> Al said: "God does not play dice..."
>
>> Current Truth is: "He not only plays dice, he sometimes throws them where
>> even He can't see them."
>
> Actually, what he said was "God does not play dice with the world.".
>
> He also said "Nature shows us only the tail of the lion. But I do not
> doubt that the lion belongs to it even though he cannot at once reveal
> himself because of his enormous size".
>
>
> --
> Jim Pennino
>
> Remove -spam-sux to reply.

As to playing dice with the world, we just got near-missed by a decent hunk
of rock last week. It's coming back in four years; do ya feel lucky?

How fortunate Al didn't try to make a living as a taxonomist.

Ed
wb6wsn

## 111. Re: NEWS - Researchers invent antenna for light

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-04 06:15:55 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <v4q1m01p5sddtp3ah4f9n0lp1kcr9lfbk5@4ax.com>
Source record: 88805

On Sun, 3 Oct 2004 23:07:00 -0700, "Ed Price" <edprice@cox.net> wrote:

> It's coming back in four years

Hi Ed,

Have the Republicans named it Clinton yet? Perhaps if we made a
pre-emptive strike against Mars.... The day before it hits us we can
all expect to hear why:
"It's a hard job!"

73's
Richard Clark, KB7QHC

## 112. Re: NEWS - Researchers invent antenna for light

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-04 06:16:22 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <IU58d.121128$9Y5.49282@fed1read02>
Source record: 88806

"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:4160b7b9$1_1@corp.newsgroups.com...
> Dogs do not play dice... wrote:
>> Al said: "God does not play dice..."
>>
>> Current Truth is: "He not only plays dice, he sometimes throws them where
>> even He can't see them."
>
> So that's how it is possible for an omniscient God to give
> free will to human beings?

Uh oh; Cecil asks The Big One! A few of the answers are:

1. God?
2. God's not omniscient.
3. God takes long breaks.
4. God subcontracts.
5. Free Will isn't free, and the rent is overdue.
6. God likes dogs better than humans.
7. God's got a weird sense of humor.

Ed
wb6wsn

## 113. Re: Reg's programs and Windows-XP

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-04 08:34:10 UTC
From: remove_ok1sip@atlas.cz
Message-ID: <5f5159fa.0410040034.11e8c27c@posting.google.com>
Source record: 88807

Hi Reg,
all seems to be O.K. on Win2K computers.

73 de Ivan OK1SIP

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:<cjq1mp$gtm$1@hercules.btinternet.com>...
> If your computer's operating system is Windows-XP some of you may have a
> problem with running my programs full-screen. If so -
...

## 114. Re: Radial installation method

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-04 12:07:23 UTC
From: John Passaneau <jxp16@psu.edu>
Message-ID: <cjredr$1juc$1@f04n12.cac.psu.edu>
Source record: 88808

"Mike Coslo" <mcoslo@adelphia.net> wrote in message
news:KYSdnfd9Yt0NKf3cRVn-ug@adelphia.com...
>
>
> Hal Rosser wrote:
>
> > "Mike Coslo" <mcoslo@adelphia.net> wrote in message
> > news:lrCdne8ikY9A5_3cRVn-uA@adelphia.com...
> > >
> >>I just got done installing radials for a new antenna, and was distressed
> >>at the amount of time it was taking.
> >>
> >>I was looking at some power tools that might speed up the trenching
> >>process. Power edgers looked promising, but were 90 - 100 dollars for
> >>electrical models, and more for the gas powered ones.
> >>
> >>Finally I hit on something. I bought an inexpensive electric chainsaw.
> >>I'm sure the neighbors thought I was a lunatic, but trenching for the
> >>radials took surprisingly little time. So I laid all my radials in one
> >>afternoon. It would have taken even less time if there had been an extra
> >>person around to help.
> >>
> >>Caveats:
> >>
> >>This is of course *dangerous* - don't ever do it!!! Chainsaws are sharp
> >>and nasty.
> >>
> >>It wore out the Chainsaw chain. That really isn't a big deal. I'm just
> >>going to save it for the next time I need to trench radials.
> >>
> >>The chainsaw needs washed and lubed after trenching.
> >>
> >>But it was quick. The radials are in, the post for the vertical is in
> >>and concrete setting as I write.
> >>
> >>Just thought I'd share this with the group. I never saw anyone else
> >>saying they did anything similar, so I either stumbled on something, or
> >>I'm completely whacked! ;^)
> >>
> >>- Mike KB3EIA -
> >>
> >
> >
> > Bravo! Thanks for the new addition for our bag of tricks.

> > The cost of a new chain is nothing compared to the labor savings.
> > How's the back from bending over that long?
>
> The back is getting a bit sore as the evening wears on. I can only
> guess that it would have been worse with the other methods form the time
> I would have had to be bending.
>
>
> One unexpected sore part is the fingers of my left hand got their nails
> worn down and the skin is tender now - kind of like when a person first
> plays the guitar. Probably from pushing and guiding the radial wires on
> the ground as I pushed them under. Gloves for me the next time!
>
> - Mike KB3EIA -
>
Hi Mike:

Are we going to see any pictures of this on the club web site? I would have never thought of a chain saw.

--
John Passaneau, W3JXP
Penn State University
w3jxp@arrl.net

## 115. Re: OT but this is great plitical satire

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-04 13:00:50 UTC
From: Bob Miller <rmiller47@satx.rr.com>
Message-ID: <t9i2m0hdq6ckqrrmkrqnterknftc0t4cp7@4ax.com>
Source record: 88809

On Mon, 04 Oct 2004 04:32:48 GMT, "Jimmie" <Gfender@carolina.rr.com>
wrote:

>www.jibjab.com
>best political satire I have seen.
>

I tried the site and got a warning from IExplorer -- might not be
safe.

Bob
k5qwg

## 116. Re: Radial installation method

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-04 14:21:02 UTC
From: raiar@bbs.galilei.com.nospam
Message-ID: <41615b57.873389640@news.galilei.com>
Source record: 88810

Hi Mike

I just used a LARGE Butchers Knife (with addition) and a rubber
mallet.
The addition to the butchers knife was a U shaped steel tube welded to
the side to plant the radials at the same time the slot was cut.
No dirt to fill back in, and little to no visible damage to the lawn.
The rate of burying radials in this fashion was faster than 500 ft per
hour.

TTUL
Gary

Mike Coslo <mcoslo@adelphia.net> verbositized:

>I just got done installing radials for a new antenna, and was distressed
>at the amount of time it was taking.
>
>I was looking at some power tools that might speed up the trenching
>process. Power edgers looked promising, but were 90 - 100 dollars for
>electrical models, and more for the gas powered ones.
>
>Finally I hit on something. I bought an inexpensive electric chainsaw.
>I'm sure the neighbors thought I was a lunatic, but trenching for the
>radials took surprisingly little time. So I laid all my radials in one
>afternoon. It would have taken even less time if there had been an extra
>person around to help.
>
>Caveats:
>
> This is of course *dangerous* - don't ever do it!!! Chainsaws are sharp
>and nasty.
>
> It wore out the Chainsaw chain. That really isn't a big deal. I'm just
>going to save it for the next time I need to trench radials.
>
> The chainsaw needs washed and lubed after trenching.
>
> But it was quick. The radials are in, the post for the vertical is in
>and concrete setting as I write.
>
> Just thought I'd share this with the group. I never saw anyone else
>saying they did anything similar, so I either stumbled on something, or
>I'm completely whacked! ;^)
>

> - Mike KB3EIA -
>

## 117. Re: Radial installation method

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-04 14:44:14 UTC
From: Wes Stewart <n7ws_@_yahoo.com>
Message-ID: <r6n2m0p1nalj6rdii22fqdgkg0nnce788f@4ax.com>
Source record: 88811

On Sun, 03 Oct 2004 22:19:50 -0400, Mike Coslo <mcoslo@adelphia.net>
wrote:

|Wes Stewart wrote:
|
|> On Sun, 03 Oct 2004 18:19:13 -0400, Mike Coslo <mcoslo@adelphia.net>
|> wrote:
|>
|> [Radial installing method snipped]
|> |
|> | Just thought I'd share this with the group. I never saw anyone else
|> |saying they did anything similar, so I either stumbled on something, or
|> |I'm completely whacked! ;^)
|>
|> I don't think that will work in my situation:
|>
|> http://www.qsl.net/n7ws/N7WS_Vert_1.jpg
|>
|> Eveything in the picture has thorns, spines, stickers or a rattlesnake
|> coiled up under it.
|>
|> And yes, there are radials running under all of that stuff and I'm
|> standing over radials where I took the picture.
|>
|>
|> Quiz: How did I do it?
|
| I'm stumped. Beautiful location, though. I bet you don't have to worry
|about RFI'ing the neighbors! 8^)

Yes we love it here, but I'm a desert rat and grew up in the area. I
did have one case of RFI when I was running max smoke on 2-meters and
getting into everything in a neighbors house. I copied the FCC's TVI
handbook for dummies and stuffed it in his mailbox. Never heard
another word. I think he must have found a "diode" junction in his
electric fence because he didn't complain anymore and I didn't hear
his fence anymore.

The secret to installing ground radials through (under) cactus, Palos
Verde and ironwood trees without getting stuck is to use a "needle and
thread" method.

The needle in this case is a 20' length of 3/8" rebar and the thread
is the wire. A hose clamp attaches the wire to the rebar. The rebar
is limber enough to deflect around small obstacles (roots) yet stiff

enough to penetrate loose earth. Needless to say, the wire isn't buried much, if at all, but there's not much foot traffic through these areas.[g]

Wes

## 118. Re: Radial installation method

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-04 17:02:09 UTC
From: Mike Coslo <mjc5remove@psu.edu>
Message-ID: <41618211.4040809@psu.edu>
Source record: 88812

John Passaneau wrote:
> "Mike Coslo" <mcoslo@adelphia.net> wrote in message
> news:KYSdnfd9Yt0NKf3cRVn-ug@adelphia.com...
>
>>
>>Hal Rosser wrote:
>>
>>
>>>"Mike Coslo" <mcoslo@adelphia.net> wrote in message
>>>news:lrCdne8ikY9A5_3cRVn-uA@adelphia.com...
>>>
>>>
>>>>I just got done installing radials for a new antenna, and was distressed
>>>>at the amount of time it was taking.
>>>>
>>>>I was looking at some power tools that might speed up the trenching
>>>>process. Power edgers looked promising, but were 90 - 100 dollars for
>>>>electrical models, and more for the gas powered ones.
>>>>
>>>>Finally I hit on something. I bought an inexpensive electric chainsaw.
>>>>I'm sure the neighbors thought I was a lunatic, but trenching for the
>>>>radials took surprisingly little time. So I laid all my radials in one
>>>>afternoon. It would have taken even less time if there had been an extra
>>>>person around to help.
>>>>
>>>>Caveats:
>>>>
>>>>This is of course *dangerous* - don't ever do it!!! Chainsaws are sharp
>>>>and nasty.
>>>>
>>>>It wore out the Chainsaw chain. That really isn't a big deal. I'm just
>>>>going to save it for the next time I need to trench radials.
>>>>
>>>>The chainsaw needs washed and lubed after trenching.
>>>>
>>>>But it was quick. The radials are in, the post for the vertical is in
>>>>and concrete setting as I write.
>>>>
>>>>Just thought I'd share this with the group. I never saw anyone else
>>>>saying they did anything similar, so I either stumbled on something, or
>>>>I'm completely whacked! ;^)
>>>>
>>>>- Mike KB3EIA -
>>>>

>>>
>>>
>>>Bravo! Thanks for the new addition for our bag of tricks.
>>>The cost of a new chain is nothing compared to the labor savings.
>>>How's the back from bending over that long?
>>
>>The back is getting a bit sore as the evening wears on. I can only
>>guess that it would have been worse with the other methods form the time
>>I would have had to be bending.
>>
>>
>>One unexpected sore part is the fingers of my left hand got their nails
>>worn down and the skin is tender now - kind of like when a person first
>>plays the guitar. Probably from pushing and guiding the radial wires on
>>the ground as I pushed them under. Gloves for me the next time!
>>
>>- Mike KB3EIA -
>>
>
> Hi Mike:
>
> Are we going to see any pictures of this on the club web site? I would have
> never thought of a chain saw.

Sure, why not? I have a bit more trenching to do, so I can get pix.
Maybe even an mpeg - that would be a laugh or two!

- Mike KB3EIA -

## 119. Re: OT but this is great plitical satire

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-04 17:50:11 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <km23m0ltslsjludrg3hbuu77qe254pnsap@4ax.com>
Source record: 88813

On Mon, 04 Oct 2004 13:00:50 GMT, Bob Miller <rmiller47@satx.rr.com>
wrote:

>On Mon, 04 Oct 2004 04:32:48 GMT, "Jimmie" <Gfender@carolina.rr.com>
>wrote:
>
>>www.jibjab.com
>>best political satire I have seen.

Yes, it is very drole.
>>
>
>I tried the site and got a warning from IExplorer -- might not be
>safe.
Well, actually, the proper interpretation from M$ is that it "was not"
safe (you be burned, sucka!).
>
>Bob
>k5qwg
>

Hi Bob,

You have to go into "Tools" "Internet Options"
Select "Security"
Click the set level of alert from "Orange" to "Code Pink"
And remove "Notify Ashcroft of all my web/terrorist visits."

73's
Richard Clark, KB7QHC

## 120. Re: 18nH Inductor

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-04 18:33:26 UTC
From: k7itm@aol.com
Message-ID: <3200347.0410041033.9a87e75@posting.google.com>
Source record: 88814
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

"Joe" <nuisancewildlife@nospamearthlink.net> wrote in message
news:<pk17d.6019$ls6.4814@newsread3.news.atl.earthlink.net>...
> "Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
> news:cji081$nq7$1@titan.btinternet.com...
> > An 18 nano-henry inductor seems, to me, to be an impractical inductor
> value.

;-) You just aren't working with small enough, high enough frequency
circuits, Reg.

3 turns of 28AWG on a 4-40 (USA) screw (remove the screw, of course)
will give you about 18 nH. Unloaded Q at 440MHz will be around 200.
>
> The link to the schematic is:
> http://www.radiotronix.com/downloads/433_pair.pdf

Easy enough to use SMT components soldered to a piece of copper-clad
for a ground plane. Just put down the two caps and the shunt resistor
"tombstone" style, one end soldered to the ground plane and the other
up in the air, separated by enough distance to put the series coil and
resistor between them. You can keep the parasitic L and C very low
indeed this way. You can also use tiny squares of copper-clad glued
down to the ground plane as tie points.

It's also possible to mechanically make a simple circuit like this on
copper-clad using surface mount parts, by scribing lines with
something like an X-Acto knife and removing strips of copper. In this
case, I could see scribing four lines across the board, separated by
about 1/16 inch, and removing two copper strips, one from between the
first and second scribe, and one from between the thrid and fourth
scribe. That leaves a trace about 1/16 inch wide. Cut gaps in the
trace, about 1/16 inch long, where you want to solder down series
components. Solder shunt components across from the trace to the
copper ground plane. Bridge across the trace with a copper strap to
connect the two gound plane sides, with the bridge up in the air over
the trace. Nice to have a ground plane on the opposite side, with
some holes and wires to connect to the top-side ground planes, but not
necessary. I'm thinking 0805 parts with the sizes I mentioned...make
things slightly larger for 1206. You can make the trace be a 50 ohm
transmission line if you want, by sizing things right.

Cheers,
Tom

## 121. Windom vs G5RV : 1-0

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-04 19:58:59 UTC
From: Thierry <->
Message-ID: <4161ab85$1@news.vo.lu>
Source record: 88815

FYI.
Hi,
I come back with my 40m long Windom vs. my 31m G5RV question of 2 weeks ago.

I did my tests during 3 days from 10 am to midnight. How does the Windom perform ?
Theoretically the Windom is know to perform better (at least +1 S-point say some readers) than a dipole due to the mix of horizontal and vertical polarization, with the advantage of showing a more or less omnidirectional pattern.
http://www.astrosurf.com/lombry/Radio/ant-carolina-windom-radiation-pattern.gif

However some models cannot be tuned on WARC bands. Mine could be tuned on all bands with a SWR at the antenna below 2:1. At last, drawback, the Window radiates along its coax. On mine, only 30 cm where inside the shack, the remaining coax running outdoor, along the external wall of the house and between trees up to the feed point 7m high.

Two images for those who don't know this well-known antenna:
Windom design : http://www.astrosurf.com/lombry/Radio/ant-ocf-windom-dwg.gif
Installation of the windom sold by wimo.de :
http://www.astrosurf.com/lombry/Radio/windom-balun.jpg
Ends were attached for one in pines 8m high, the other on the chimney 7m high.

And indeed, I confirm the general opinion. The Windom radiation pattern is much more omnidirectional than the dipole one and I don't have noticed more QRM.

From what I have experimented from 160 to 10 m, including WARC bands, working in SSB I received better signal reports with the Windom and I confirmed countries I was never able to reach with the multi-band dipole.

Tight in the E-W direction, from Europe working on 20, 17 and 15m bands during 3 days I reached without much difficulties and often almost at first call North america (VE, K), South America (HK, YV, PY), Middle-east (9K, A4, A9, YI), Asia (4S, JA) and many VK stations.

Globally working bare foot with 100 W PEP, I had a SWR between 1.5-2 (quite high) but DX signal reports were between 55 and 57, often stronger on the axis 9K-4S-VK (and unconfirmed to UA9/0 due to lack of DX stations from these areas, but most UA1/3/4/6 arrived 59).
It is however more strange to note that the signal that I received was most of the time (say maybe 7 times over 10) about 1 or 2 S-points weaker than the strength of my signal to the DX.

But moderate this result. Of course with 100 W in a fixed wire antenna tight between 0.4-0.5-lambda high the configuration is far to be optimized. Then there were many DX (VR, XW, XU, etc) I was unable to work due to pileups. But results exceeded my expectations and I found signal reports quasi on par with a long vertical cut at L/4, but without QRM, a really mix of performances of a dipole and a vertical.
NB. Of course there could be a drawback if you use high power (> 200W) due to RF radiation in the shack. This can be avoided using the Carolina design.

For short, I kept the Window, and sold my G5RV ! I will mainly use it on low bands.
And thanks to OMs who read this thread and who permitted me to test this antenna on the air; your QSL is already sent ;-)

Hope this helps.

73
Thierry, ON4SKY.

## 122. Coaxial folded dipole (was: Natural balun/Antenna on 9/26/2004)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-04 20:19:41 UTC
From: John Smith <kd5yikes@mindspring.com>
Message-ID: <cjsb8u02g8p@enews1.newsguy.com>
Source record: 88816

Okay, then, I will present data measured this day for this antenna:

http://www.sophisticatedsolutions.us/images/Folded%20Dipole.jpg

This is shown in "Antennas for All Applications" on page 820, figure 23-17 (a).

I built the antenna wholly from RG58. The center conductor of the right half is not connected at either end. It is 14.375 inches wide and averages a little less than .5 inches between the centers of the top and bottom conductors. Where the coax is shown exiting the antenna, is a female, flangeless, chassis mount, BNC connector so that I can replace the antenna with a short.

My test set up is a VHF oscillator, a vector voltmeter, and a Narda dual directional coupler. I use a 66 inch piece of RG58 from the output of the directional coupler to go to the antenna. The short circuits I use are the best I could make from BNC connectors. The 50 Ohm load I used for comparative measurements is one of those used for network terminators. Yes, I am aware they are not instrumentation quality, but it's what I have.

For a given frequency, I replace the antenna with the short and adjust the amplitude of the oscillator and the controls of the vector voltmeter so that the reference channel (A) is 10 mV and the phase is 180 degrees. I record channel B's amplitude. I then remove the short and connect the antenna. I then read and record channels A, channel B, and the phase. From these data I calculate the impedance (per HP's AN 77-3, thanks to Wes Stewart).

The first item measured is the 50 Ohm terminator. I also measured it at the conclusion of the tests to see if there were any differences and there were none.

Here are the results computed from the data:

Freq (MHz) Impedance (Ohms)

410 46.4 + 6.0i (50 Ohm terminator)

380 9.7 - 12.5
390 3.5 - 5.7
400 5.1 + 1.3i
410 5.1 + 6.5i
415 4.0 + 10.0i
425 2.5 + 15.7i

This is surprising to me and doesn't make a whole lot of sense. For one thing, I would have expected the impedance to vary wildly over the range shown. For another, the low impedance seems, well, really low.

Is the trend of the data as shown to be expected? Well, maybe the reactive part? The real part seems to make a little sense except at the extremes.

Can I trust this data to be even approximately right? I mean, can I now say that the antenna in question is maybe nice due to the natural balun but I might as well forget it as a simple antenna because to the low impedance?

Or, should I say this is utter nonsense, the antenna is probably okay, it's just my equipment, setup, or lack of knowledge giving erroneous data?

Your opinions are welcome.

John (KD5YI)

## 123. Re: Reg's programs and Windows-XP

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-04 21:09:12 UTC
From: Allodoxaphobia <bit-bucket@config.com>
Message-ID: <slrncm3evo.qkp.bit-bucket@shell.config.com>
Source record: 88817

```
On 4 Oct 2004 01:34:10 -0700, OK1SIP hath writ:
>
> "Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote:
>> If your computer's operating system is Windows-XP some of you
>> may have a problem with running my programs full-screen. If so -
> ...
> Hi Reg,
> all seems to be O.K. on Win2K computers.
>
> 73 de Ivan OK1SIP

And, I've never had any problems running them in a DOS VDM under OS/2.
Real Soon Now, I'll try'em out in dosemu under linux.

73
Jonesy
--
| Marvin L Jones | jonz | W3DHJ | linux
| Gunnison, Colorado | @ | Jonesy | OS/2 __
| 7,703' -- 2,345m | config.com | DM68mn SK
```

## 124. Re: OT but this is great plitical satire

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-04 21:17:57 UTC
From: Bob Miller <rmiller47@satx.rr.com>
Message-ID: <jbf3m0dqr1nr0f7tbrvd8a75s1jkm0hofi@4ax.com>
Source record: 88818

On Mon, 04 Oct 2004 17:50:11 GMT, Richard Clark <kb7qhc@comcast.net>
wrote:

>On Mon, 04 Oct 2004 13:00:50 GMT, Bob Miller <rmiller47@satx.rr.com>
>wrote:
>
>>On Mon, 04 Oct 2004 04:32:48 GMT, "Jimmie" <Gfender@carolina.rr.com>
>>wrote:
>>
>>>www.jibjab.com
>>>best political satire I have seen.
>
>Yes, it is very drole.
>>>
>>
>>I tried the site and got a warning from IExplorer -- might not be
>>safe.
>Well, actually, the proper interpretation from M$ is that it "was not"
>safe (you be burned, sucka!).
>>
>>Bob
>>k5qwg
>>
>
>Hi Bob,
>
>You have to go into "Tools" "Internet Options"
>Select "Security"
>Click the set level of alert from "Orange" to "Code Pink"
>And remove "Notify Ashcroft of all my web/terrorist visits."
>
>73's
>Richard Clark, KB7QHC

Downloaded Service Pack 2 today -- now I have a direct line to
Ashcroft's servers :-)

Bob
k5qwg

## 125. Re: Coaxial folded dipole (was: Natural balun/Antenna on 9/26/2004)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-04 21:34:13 UTC
From: Wes Stewart <n7ws_@_yahoo.com>
Message-ID: <75g3m0pbld29rahr88k905ac3l3oa98o08@4ax.com>
Source record: 88819

On Mon, 4 Oct 2004 15:19:41 -0500, "John Smith"
<kd5yikes@mindspring.com> wrote:

|Okay, then, I will present data measured this day for this antenna:
|
|http://www.sophisticatedsolutions.us/images/Folded%20Dipole.jpg
|
|This is shown in "Antennas for All Applications" on page 820, figure 23-17
|(a).
|
|I built the antenna wholly from RG58. The center conductor of the right half
|is not connected at either end. It is 14.375 inches wide and averages a
|little less than .5 inches between the centers of the top and bottom
|conductors. Where the coax is shown exiting the antenna, is a female,
|flangeless, chassis mount, BNC connector so that I can replace the antenna
|with a short.
|
|My test set up is a VHF oscillator, a vector voltmeter, and a Narda dual
|directional coupler. I use a 66 inch piece of RG58 from the output of the
|directional coupler to go to the antenna. The short circuits I use are the
|best I could make from BNC connectors. The 50 Ohm load I used for
|comparative measurements is one of those used for network terminators. Yes,
|I am aware they are not instrumentation quality, but it's what I have.
|
|For a given frequency, I replace the antenna with the short and adjust the
|amplitude of the oscillator and the controls of the vector voltmeter so that
|the reference channel (A) is 10 mV and the phase is 180 degrees. I record
|channel B's amplitude. I then remove the short and connect the antenna. I
|then read and record channels A, channel B, and the phase. From these data I
|calculate the impedance (per HP's AN 77-3, thanks to Wes Stewart).
|
|The first item measured is the 50 Ohm terminator. I also measured it at the
|conclusion of the tests to see if there were any differences and there were
|none.
|
|Here are the results computed from the data:
|
|Freq (MHz) Impedance (Ohms)
|
|410 46.4 + 6.0i (50 Ohm terminator)
|
|380 9.7 - 12.5
|390 3.5 - 5.7
|400 5.1 + 1.3i

|410 5.1 + 6.5i
|415 4.0 + 10.0i
|425 2.5 + 15.7i
|
|This is surprising to me and doesn't make a whole lot of sense. For one
|thing, I would have expected the impedance to vary wildly over the range
|shown. For another, the low impedance seems, well, really low.
|
|Is the trend of the data as shown to be expected? Well, maybe the reactive
|part? The real part seems to make a little sense except at the extremes.
|
|Can I trust this data to be even approximately right? I mean, can I now say
|that the antenna in question is maybe nice due to the natural balun but I
|might as well forget it as a simple antenna because to the low impedance?
|
|Or, should I say this is utter nonsense, the antenna is probably okay, it's
|just my equipment, setup, or lack of knowledge giving erroneous data?
|
|Your opinions are welcome.

John,

First of all you are to be commended for running these experiments.
Without a bit more study of your situation I can't comment too much
but I wanted to throw out a couple of quick ideas.

1) Do you have the VVM probes terminated in 50 ohm?

2) If you don't have the line stretcher as in Fig 7 of the note, are
you recalibrating at each test frequency?

3) How well is your signal source terminated, in other words do you
know its source match?

Each of these things can affect the outcome.

More later,

Wes

## 126. Re: Coaxial folded dipole (was: Natural balun/Antenna on 9/26/2004)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-04 21:45:31 UTC
From: John Smith <kd5yikes@mindspring.com>
Message-ID: <cjsg9u02per@enews1.newsguy.com>
Source record: 88820

Hi, Wes -

"Wes Stewart" <n7ws_@_yahoo.com> wrote in message
news:75g3m0pbld29rahr88k905ac3l3oa98o08@4ax.com...
> On Mon, 4 Oct 2004 15:19:41 -0500, "John Smith"
> <kd5yikes@mindspring.com> wrote:

> John,
>
> First of all you are to be commended for running these experiments.
> Without a bit more study of your situation I can't comment too much
> but I wanted to throw out a couple of quick ideas.
>
> 1) Do you have the VVM probes terminated in 50 ohm?

Yes. They came witht the kit and are called terminators. They are 50 Ohms
each.

> 2) If you don't have the line stretcher as in Fig 7 of the note, are
> you recalibrating at each test frequency?

I do not have the stretcher. I recalibrate at every frequency change.

> 3) How well is your signal source terminated, in other words do you
> know its source match?

I only know that the signal source is an HP 3200B. It directly feeds the
Narda dual directional coupler through a few feet of RG58.

> Each of these things can affect the outcome.
>
> More later,
>
>
> Wes

Thanks, Wes.

John

## 127. Re: Coaxial folded dipole (was: Natural balun/Antenna on 9/26/2004)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-04 22:34:22 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <ekj3m0p9278tir0avhbjqf725k4mie7okj@4ax.com>
Source record: 88721

On Mon, 4 Oct 2004 15:19:41 -0500, "John Smith"
<kd5yikes@mindspring.com> wrote:

>Here are the results computed from the data:
>
>Freq (MHz) Impedance (Ohms)
>
>410 46.4 + 6.0i (50 Ohm terminator)
>
>380 9.7 - 12.5
>390 3.5 - 5.7
>400 5.1 + 1.3i
>410 5.1 + 6.5i
>415 4.0 + 10.0i
>425 2.5 + 15.7i

Hi John,

How about the raw data? How about a detailed description of the NARDA coupler? It should have a calibration plate affixed to the side of it with freq vs. coupling marks (generally pretty close).

I would note you have a considerable SWR, but this was expected going into the test (however, in an inverse proportion, which may be meaningful here).

73's
Richard Clark, KB7QHC

## 128. Re: Coaxial folded dipole (was: Natural balun/Antenna on 9/26/2004)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-04 22:50:48 UTC
From: Wes Stewart <n7ws_@_yahoo.com>
Message-ID: <9fk3m0dm4cdg77e0f12qtp6spvva80gtrh@4ax.com>
Source record: 88722

```
On Mon, 4 Oct 2004 16:45:31 -0500, "John Smith"
<kd5yikes@mindspring.com> wrote:

|Hi, Wes -
|
|
|"Wes Stewart" <n7ws_@_yahoo.com> wrote in message
|news:75g3m0pbld29rahr88k905ac3l3oa98o08@4ax.com...
|> On Mon, 4 Oct 2004 15:19:41 -0500, "John Smith"
|> <kd5yikes@mindspring.com> wrote:
|
|> John,
|>
|> First of all you are to be commended for running these experiments.
|> Without a bit more study of your situation I can't comment too much
|> but I wanted to throw out a couple of quick ideas.
|>
|> 1) Do you have the VVM probes terminated in 50 ohm?
|
|
|Yes. They came witht the kit and are called terminators. They are 50 Ohms
|each.

Okay.
|
|
|> 2) If you don't have the line stretcher as in Fig 7 of the note, are
|> you recalibrating at each test frequency?
|
|
|I do not have the stretcher. I recalibrate at every frequency change.
|
Understood.
|
|> 3) How well is your signal source terminated, in other words do you
|> know its source match?
|
|
|I only know that the signal source is an HP 3200B. It directly feeds the
|Narda dual directional coupler through a few feet of RG58.

If I remember that correctly the '3200 is nothing but a p-p oscillator
and a waveguide-below-cutoff probe. If your VVM reference probe
readings are changing much between frequencies and/or
calibration/measurement, try a 6 or 10 dB pad right on the generator
```

output and see what happens.

When you're calibrating using a short, the source Z has really got to be nailed down.

Wes

## 129. Re: Coaxial folded dipole (was: Natural balun/Antenna on 9/26/2004)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-04 23:50:23 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <as-dnXFen_MIfPzcRVn-rA@comcast.com>
Source record: 88723

"John Smith" <kd5yikes@mindspring.com> wrote in message
news:cjsb8u02g8p@enews1.newsguy.com...
> Okay, then, I will present data measured this day for this antenna:
>
> http://www.sophisticatedsolutions.us/images/Folded%20Dipole.jpg
>
> This is shown in "Antennas for All Applications" on page 820, figure 23-17
> (a).
>
> I built the antenna wholly from RG58. The center conductor of the right
> half is not connected at either end. It is 14.375 inches wide and averages
> a little less than .5 inches between the centers of the top and bottom
> conductors. Where the coax is shown exiting the antenna, is a female,
> flangeless, chassis mount, BNC connector so that I can replace the antenna
> with a short.
>
> My test set up is a VHF oscillator, a vector voltmeter, and a Narda dual
> directional coupler. I use a 66 inch piece of RG58 from the output of the
> directional coupler to go to the antenna. The short circuits I use are the
> best I could make from BNC connectors. The 50 Ohm load I used for
> comparative measurements is one of those used for network terminators.
> Yes, I am aware they are not instrumentation quality, but it's what I
> have.
>
> For a given frequency, I replace the antenna with the short and adjust the
> amplitude of the oscillator and the controls of the vector voltmeter so
> that the reference channel (A) is 10 mV and the phase is 180 degrees. I
> record channel B's amplitude. I then remove the short and connect the
> antenna. I then read and record channels A, channel B, and the phase. From
> these data I calculate the impedance (per HP's AN 77-3, thanks to Wes
> Stewart).
>
> The first item measured is the 50 Ohm terminator. I also measured it at
> the conclusion of the tests to see if there were any differences and there
> were none.
>
> Here are the results computed from the data:
>
> Freq (MHz) Impedance (Ohms)
>
> 410 46.4 + 6.0i (50 Ohm terminator)
>
> 380 9.7 - 12.5
> 390 3.5 - 5.7

> 400 5.1 + 1.3i
> 410 5.1 + 6.5i
> 415 4.0 + 10.0i
> 425 2.5 + 15.7i
> .....................................
John,
Discounting the absolute values, the numbers seem to make sense, except for the 9.7. Might it have been 2.7? There seems to be resonance at around 400. The impedance goes more reactive in both directions from there, and the real part goes down monotonically, except for the 9.7

I looked at the picture, and it is not 100% obvious to me what gets connected at the balanced point. Just for kicks, I am going to try that, somewhere within the range of an MFJ269.

Tam/WB2TT

## 130. Re: Coaxial folded dipole (was: Natural balun/Antenna on 9/26/2004)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-05 00:18:49 UTC
From: John Smith <kd5yikes@mindspring.com>
Message-ID: <cjsp9c01r04@enews4.newsguy.com>
Source record: 88724

"Wes Stewart" <n7ws_@_yahoo.com> wrote in message
news:9fk3m0dm4cdg77e0f12qtp6spvva80gtrh@4ax.com...
> On Mon, 4 Oct 2004 16:45:31 -0500, "John Smith"

> If I remember that correctly the '3200 is nothing but a p-p oscillator
> and a waveguide-below-cutoff probe. If your VVM reference probe
> readings are changing much between frequencies and/or
> calibration/measurement, try a 6 or 10 dB pad right on the generator
> output and see what happens.

The 3200B is the oscillator they use in the HP AN 77-3 you sent to me. I'm using it the same way they did except for the stretcher and a Narda (rather than HP) coupler. However, I'll try to run a test and determine how much difference there is using a pad.

> When you're calibrating using a short, the source Z has really got to
> be nailed down.
>
> Wes

Thanks.

John

## 131. Re: Coaxial folded dipole (was: Natural balun/Antenna on 9/26/2004)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-05 00:30:19 UTC
From: John Smith <kd5yikes@mindspring.com>
Message-ID: <cjspv501s93@enews4.newsguy.com>
Source record: 88725

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:ekj3m0p9278tir0avhbjqf725k4mie7okj@4ax.com...
> On Mon, 4 Oct 2004 15:19:41 -0500, "John Smith"
> <kd5yikes@mindspring.com> wrote:
>
>>Here are the results computed from the data:
>>
>>Freq (MHz) Impedance (Ohms)
>>
>>410 46.4 + 6.0i (50 Ohm terminator)
>>
>>380 9.7 - 12.5
>>390 3.5 - 5.7
>>400 5.1 + 1.3i
>>410 5.1 + 6.5i
>>415 4.0 + 10.0i
>>425 2.5 + 15.7i
>
> Hi John,
>
> How about the raw data? How about a detailed description of the NARDA
> coupler? It should have a calibration plate affixed to the side of it
> with freq vs. coupling marks (generally pretty close).

The Narda coupler has no calibration plate. It says model 30611, serial no. 4235. It also appears to have been made for Motorola, as their part number appears on it. One end says "BTS" and the opposite end says "ANT". At the BTS end, on the side, there is a connector which says -30 dB. Similarly on the antenna end.

Raw data:

Reference Measurement
Freq A1 B1 ?1 A2 B2 ?2
415 1 0.76 180 0.82 0.535 158
410 1 0.77 180 0.905 0.57 165
400 1 0.79 180 1.08 0.695 177
390 1 0.81 180 1.02 0.72 -167
425 1 0.743 180 1.06 0.72 145
380 1 0.815 180 0.86 0.485 -151
410 1 0.749 180 0.535 0.029 118
425 1 0.695 180 1.04 0.695 143

> I would note you have a considerable SWR, but this was expected going
> into the test (however, in an inverse proportion, which may be

> meaningful here).
>
> 73's
> Richard Clark, KB7QHC

## 132. Re: Coaxial folded dipole (was: Natural balun/Antenna on 9/26/2004)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-05 00:42:34 UTC
From: John Smith <kd5yikes@mindspring.com>
Message-ID: <cjsqlv01t7o@enews4.newsguy.com>
Source record: 88726

"Tam/WB2TT" <t-tammaru@c0mca$t.net> wrote in message
news:as-dnXFen_MlfPzcRVn-rA@comcast.com...
>
> "John Smith" <kd5yikes@mindspring.com> wrote in message
> news:cjsb8u02g8p@enews1.newsguy.com...
>> Okay, then, I will present data measured this day for this antenna:
>>
>> http://www.sophisticatedsolutions.us/images/Folded%20Dipole.jpg
>>
>> This is shown in "Antennas for All Applications" on page 820, figure
>> 23-17 (a).
>>
>> I built the antenna wholly from RG58. The center conductor of the right
>> half is not connected at either end. It is 14.375 inches wide and
>> averages a little less than .5 inches between the centers of the top and
>> bottom conductors. Where the coax is shown exiting the antenna, is a
>> female, flangeless, chassis mount, BNC connector so that I can replace
>> the antenna with a short.
>>
>> My test set up is a VHF oscillator, a vector voltmeter, and a Narda dual
>> directional coupler. I use a 66 inch piece of RG58 from the output of the
>> directional coupler to go to the antenna. The short circuits I use are
>> the best I could make from BNC connectors. The 50 Ohm load I used for
>> comparative measurements is one of those used for network terminators.
>> Yes, I am aware they are not instrumentation quality, but it's what I
>> have.
>>
>> For a given frequency, I replace the antenna with the short and adjust
>> the amplitude of the oscillator and the controls of the vector voltmeter
>> so that the reference channel (A) is 10 mV and the phase is 180 degrees.
>> I record channel B's amplitude. I then remove the short and connect the
>> antenna. I then read and record channels A, channel B, and the phase.
>> From these data I calculate the impedance (per HP's AN 77-3, thanks to
>> Wes Stewart).
>>
>> The first item measured is the 50 Ohm terminator. I also measured it at
>> the conclusion of the tests to see if there were any differences and
>> there were none.
>>
>> Here are the results computed from the data:
>>
>> Freq (MHz) Impedance (Ohms)
>>
>> 410 46.4 + 6.0i (50 Ohm terminator)

>>
>> 380 9.7 - 12.5
>> 390 3.5 - 5.7
>> 400 5.1 + 1.3i
>> 410 5.1 + 6.5i
>> 415 4.0 + 10.0i
>> 425 2.5 + 15.7i
>> ....................................
> John,
> Discounting the absolute values, the numbers seem to make sense, except
> for the 9.7. Might it have been 2.7? There seems to be resonance at around
> 400. The impedance goes more reactive in both directions from there, and
> the real part goes down monotonically, except for the 9.7
>
> I looked at the picture, and it is not 100% obvious to me what gets
> connected at the balanced point. Just for kicks, I am going to try that,
> somewhere within the range of an MFJ269.
>
> Tam/WB2TT

Hi, Tam -

I will try to repeat the test at that frequency.

By the balanced point, I assume you mean at the bottom center. It is a female BNC connector, facing downward. A halfwave length of RG58 goes off the left side and folds. The coax is soldered in normal fashion to the connector. Another halfwave piece of RG58 goes off the right side and folds. The center conductor of the right side piece is not connected on either end. The shield of the right side coax is soldered to the shell of the BNC and the two pices of coax is joined as shown in the figure.

If by the balanced point you meant at the top center of the figure, the center conductor only of the left side coax is soldered to the shield only of the right side coax.

If this description is not clear, let me know and I'll try again. I would take a picture and make it available, but I'm afraid it would only confuse due to lack of detail.

Thanks,
John

## 133. Re: Coaxial folded dipole (was: Natural balun/Antenna on 9/26/2004)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-05 01:08:59 UTC
From: John Smith <kd5yikes@mindspring.com>
Message-ID: <cjss7d01vlt@enews4.newsguy.com>
Source record: 88727

"Tam/WB2TT" <t-tammaru@c0mca$t.net> wrote in message
news:as-dnXFen_MlfPzcRVn-rA@comcast.com...
>
> "John Smith" <kd5yikes@mindspring.com> wrote in message
> news:cjsb8u02g8p@enews1.newsguy.com...
>> Okay, then, I will present data measured this day for this antenna:
>>
>> http://www.sophisticatedsolutions.us/images/Folded%20Dipole.jpg
>>
>> This is shown in "Antennas for All Applications" on page 820, figure
>> 23-17 (a).
>>
>> I built the antenna wholly from RG58. The center conductor of the right
>> half is not connected at either end. It is 14.375 inches wide and
>> averages a little less than .5 inches between the centers of the top and
>> bottom conductors. Where the coax is shown exiting the antenna, is a
>> female, flangeless, chassis mount, BNC connector so that I can replace
>> the antenna with a short.
>>
>> My test set up is a VHF oscillator, a vector voltmeter, and a Narda dual
>> directional coupler. I use a 66 inch piece of RG58 from the output of the
>> directional coupler to go to the antenna. The short circuits I use are
>> the best I could make from BNC connectors. The 50 Ohm load I used for
>> comparative measurements is one of those used for network terminators.
>> Yes, I am aware they are not instrumentation quality, but it's what I
>> have.
>>
>> For a given frequency, I replace the antenna with the short and adjust
>> the amplitude of the oscillator and the controls of the vector voltmeter
>> so that the reference channel (A) is 10 mV and the phase is 180 degrees.
>> I record channel B's amplitude. I then remove the short and connect the
>> antenna. I then read and record channels A, channel B, and the phase.
>> From these data I calculate the impedance (per HP's AN 77-3, thanks to
>> Wes Stewart).
>>
>> The first item measured is the 50 Ohm terminator. I also measured it at
>> the conclusion of the tests to see if there were any differences and
>> there were none.
>>
>> Here are the results computed from the data:
>>
>> Freq (MHz) Impedance (Ohms)
>>
>> 410 46.4 + 6.0i (50 Ohm terminator)

>>
>> 380 9.7 - 12.5
>> 390 3.5 - 5.7
>> 400 5.1 + 1.3i
>> 410 5.1 + 6.5i
>> 415 4.0 + 10.0i
>> 425 2.5 + 15.7i
>> ....................................
> John,
> Discounting the absolute values, the numbers seem to make sense, except
> for the 9.7. Might it have been 2.7? There seems to be resonance at around
> 400. The impedance goes more reactive in both directions from there, and
> the real part goes down monotonically, except for the 9.7

Well, measured again, at 380 MHz I get 0.9 - 4.4i.

> I looked at the picture, and it is not 100% obvious to me what gets
> connected at the balanced point. Just for kicks, I am going to try that,
> somewhere within the range of an MFJ269.
>
> Tam/WB2TT

This is getting discouraging.

John
>

## 134. Re: Coaxial folded dipole (was: Natural balun/Antenna on 9/26/2004)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-05 01:58:07 UTC
From: John Smith <kd5yikes@mindspring.com>
Message-ID: <cjsv3j0p26@enews1.newsguy.com>
Source record: 88729

"Wes Stewart" <n7ws_@_yahoo.com> wrote in message
news:9fk3m0dm4cdg77e0f12qtp6spvva80gtrh@4ax.com...
> On Mon, 4 Oct 2004 16:45:31 -0500, "John Smith"
> <kd5yikes@mindspring.com> wrote:

Freq (MHz) Impedance (Ohms)

410 46.4 + 6.0i (50 Ohm terminator)

380 9.7 - 12.5
390 3.5 - 5.7
400 5.1 + 1.3i
410 5.1 + 6.5i
415 4.0 + 10.0i
425 2.5 + 15.7i

> |> 3) How well is your signal source terminated, in other words do you
> |> know its source match?
> |
> |
> |I only know that the signal source is an HP 3200B. It directly feeds the
> |Narda dual directional coupler through a few feet of RG58.
>
> If I remember that correctly the '3200 is nothing but a p-p oscillator
> and a waveguide-below-cutoff probe. If your VVM reference probe
> readings are changing much between frequencies and/or
> calibration/measurement, try a 6 or 10 dB pad right on the generator
> output and see what happens.
>
> When you're calibrating using a short, the source Z has really got to
> be nailed down.
>
> Wes

Okay. I repeated the test using an HP 355C attenuator set for 10 dB and at 400 MHz got 4 + 3i on the antenna. I also checked my 50 Ohm network terminator with this setup and it measured 44 + 4i. The data are different, but they're not an order of magnitude different, at least.

So, although my measurements aren't repeatable, they are sloppily consistent. That is, although I can't say exactly what the antenna impedance is with confidence, I am beginning to believe that it really is very low in impedance. Am I drawing an erroneous conclusion too early? I can wait a little longer to draw an erroneous conclusion.

John

## 135. Re: Coaxial folded dipole (was: Natural balun/Antenna on 9/26/2004)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-05 02:05:30 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <FdednWnn75z-nP_cRVn-qg@comcast.com>
Source record: 88728

```
"John Smith" <kd5yikes@mindspring.com> wrote in message
news:cjsqlv01t7o@enews4.newsguy.com...
>
> "Tam/WB2TT" <t-tammaru@c0mca$t.net> wrote in message
> news:as-dnXFen_MlfPzcRVn-rA@comcast.com...
>>
>> "John Smith" <kd5yikes@mindspring.com> wrote in message
>> news:cjsb8u02g8p@enews1.newsguy.com...
>>> Okay, then, I will present data measured this day for this antenna:
>>>
>>> http://www.sophisticatedsolutions.us/images/Folded%20Dipole.jpg
>>>
>>> This is shown in "Antennas for All Applications" on page 820, figure
>>> 23-17 (a).
>>>
>>> I built the antenna wholly from RG58. The center conductor of the right
>>> half is not connected at either end. It is 14.375 inches wide and
>>> averages a little less than .5 inches between the centers of the top and
>>> bottom conductors. Where the coax is shown exiting the antenna, is a
>>> female, flangeless, chassis mount, BNC connector so that I can replace
>>> the antenna with a short.
>>>
>>> My test set up is a VHF oscillator, a vector voltmeter, and a Narda dual
>>> directional coupler. I use a 66 inch piece of RG58 from the output of
>>> the directional coupler to go to the antenna. The short circuits I use
>>> are the best I could make from BNC connectors. The 50 Ohm load I used
>>> for comparative measurements is one of those used for network
>>> terminators. Yes, I am aware they are not instrumentation quality, but
>>> it's what I have.
>>>
>>> For a given frequency, I replace the antenna with the short and adjust
>>> the amplitude of the oscillator and the controls of the vector voltmeter
>>> so that the reference channel (A) is 10 mV and the phase is 180 degrees.
>>> I record channel B's amplitude. I then remove the short and connect the
>>> antenna. I then read and record channels A, channel B, and the phase.
>>> From these data I calculate the impedance (per HP's AN 77-3, thanks to
>>> Wes Stewart).
>>>
>>> The first item measured is the 50 Ohm terminator. I also measured it at
>>> the conclusion of the tests to see if there were any differences and
>>> there were none.
>>>
>>> Here are the results computed from the data:
>>>
```

>>> Freq (MHz) Impedance (Ohms)
>>>
>>> 410 46.4 + 6.0i (50 Ohm terminator)
>>>
>>> 380 9.7 - 12.5
>>> 390 3.5 - 5.7
>>> 400 5.1 + 1.3i
>>> 410 5.1 + 6.5i
>>> 415 4.0 + 10.0i
>>> 425 2.5 + 15.7i
>>> ....................................
>> John,
>> Discounting the absolute values, the numbers seem to make sense, except
>> for the 9.7. Might it have been 2.7? There seems to be resonance at
>> around 400. The impedance goes more reactive in both directions from
>> there, and the real part goes down monotonically, except for the 9.7
>>
>> I looked at the picture, and it is not 100% obvious to me what gets
>> connected at the balanced point. Just for kicks, I am going to try that,
>> somewhere within the range of an MFJ269.
>>
>> Tam/WB2TT
>
>
> Hi, Tam -
>
> I will try to repeat the test at that frequency.
>
> By the balanced point, I assume you mean at the bottom center. It is a
> female BNC connector, facing downward. A halfwave length of RG58 goes off
> the left side and folds. The coax is soldered in normal fashion to the
> connector. Another halfwave piece of RG58 goes off the right side and
> folds. The center conductor of the right side piece is not connected on
> either end. The shield of the right side coax is soldered to the shell of
> the BNC and the two pices of coax is joined as shown in the figure.
>
> If by the balanced point you meant at the top center of the figure, the
> center conductor only of the left side coax is soldered to the shield only
> of the right side coax.
>
> If this description is not clear, let me know and I'll try again. I would
> take a picture and make it available, but I'm afraid it would only confuse
> due to lack of detail.
>
> Thanks,
> John
>
John, This turned out simpler than I thought. I did a quick and dirty test
with a folded dipole made up of two 3 foot pieces of RG58, and a feedline
1/2 WL at 160 MHz. Unfortunately, this puts me too close to the upper limit

of the MFJ, but you can see what happens. BTW, I meant the top for the balanced point. Turns out it makes no difference whether the center conductor of the left side is connected to the center conductor, or the shield, of the right side.

My numbers:

F R X
145 30 89
150 10 60
155 ? 7? 14? This looks like 165
160 8 25
165 7 13
170.25 6 0
175 5 14

I would say that if anything, my numbers make less sense than yours. I also got a reading of 1+j0 at about 65 MHz. Don't know what that means, other than a dead short. I will hook it up as a regular folded dipole, and see if I get anything like 300 Ohms. Probably tomorrow.

Was this claimed to be a 50 Ohm antenna?

Tam/WB2TT

## 136. Re: Coaxial folded dipole (was: Natural balun/Antenna on 9/26/2004)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-05 07:04:11 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <snf4m05r4jr4u11988830qlids7cocsati@4ax.com>
Source record: 88730

On Mon, 4 Oct 2004 19:30:19 -0500, "John Smith"
<kd5yikes@mindspring.com> wrote:

>The Narda coupler has no calibration plate. It says model 30611, serial no.
>4235. It also appears to have been made for Motorola, as their part number
>appears on it.

Hi John,

This is not a NARDA model number according to their own catalogue,
although I see it described as NARDA in more than one ebay auction. I
would say this is a special run for Motorola (which is probably their
contract number with NARDA).

However, all ebay auctions list this as an 960 MHz device.

Typically, directional couplers are within their nominal ratings only
over a octave range and some of those octaves from within their
catalogue are 500 MHz to 1 GHz. Others are 450 MHz to 900 MHz. Some
are listed as 0.05 GHz to 1 GHz, but the coupling is VERY MUCH
different than nominal outside the octave range (by as much as 10 - 15
dB). Generally, you don't suffer this much variation near the octave
band edges, but they do track off from their otherwise flat response.

It looks like you need to measure the coupling directly (at both
ports) across your frequencies of interest. The coupling factor is
not so important as is the ports tracking. I will discuss the raw and
finished data separately.

73's
Richard Clark, KB7QHC

## 137. Re: Coaxial folded dipole (was: Natural balun/Antenna on 9/26/2004)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-05 07:35:59 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <ekh4m0te4qof5q4025gjuoqmka96t5u60p@4ax.com>
Source record: 88732

On Mon, 4 Oct 2004 19:30:19 -0500, "John Smith"
<kd5yikes@mindspring.com> wrote:
>>>400 5.1 + 1.3i
> Reference Measurement
>Freq A1 B1 ?1 A2 B2 ?2
>400 1 0.79 180 1.08 0.695 177

Hi John,

Well, from the two results above, and referencing my copy of Appl.
Note 77-3, Page 7, section "Measuring Rho 100 to 1000 MHz," there are
a number of issues here.

Your B1/A1 is quite off the mark (but certainly correctable, afterall,
that is the purpose of its measurement).

|Rho| = B2ï¿½A1/A2ï¿½B1 = 0.695ï¿½1/1.08ï¿½0.79 = 0.815

Casting the magnitude and angle onto a Smith Chart would suggest your
5.1 + 1.3i Ohms is close enough given your data.

The only kicker is port tracking, but I have a hunch that probably is
not an issue.

This bears further consideration. Too bad Kraus did not choose to
elaborate.

73's
Richard Clark, KB7QHC

## 138. Re: Coaxial folded dipole (was: Natural balun/Antenna on 9/26/2004)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-05 12:20:42 UTC
From: nospam@nouce.bellatlantic.net
Message-ID: <6d35m0hmi6klr6tnlqp600hl2rbstuhmkp@4ax.com>
Source record: 88733

On Mon, 4 Oct 2004 15:19:41 -0500, "John Smith"
<kd5yikes@mindspring.com> wrote:

>Okay, then, I will present data measured this day for this antenna:
>
>http://www.sophisticatedsolutions.us/images/Folded%20Dipole.jpg
>
>This is shown in "Antennas for All Applications" on page 820, figure 23-17
>(a).

Just an off the cuff remark and a possible clue.

It's not clear from the picture or explanation if the center
conductor is continious from the right half of the antenna to the
left. I understand the center conductor does not connect to the
right half at the T.

For the case that it does continue:
Looking that the picture, if the right side were parallel to the left
I'd call that a 1/4 wave 1:1 balun with a shorted load connected
rather than an antenna. That would result in a significant reactance
or a short depending on frequency. The sorted load would be the
continued centor conductor in the right half.

For the case that it does Not continue:
I'd call that a 1/4 wave 1:1 balun with an open load connected rather
than an antenna. That would result in a significant reactance again.

There is a third case:
A connect dot is missing at the junction of the center conductor where
it meets the shield of the right loop (top center). If the lengths
were ~1/4 wave for each side then the impedence at the center would
be high for the left center conductor and the right shield and that
would likely be a tuneable folded dipole.

Did I miss something about the antenna design?

As drawn it looks like an attempt to take a parallel line balun (coax
with a 1/4wave 1:1 balun) and make it serve as a radiator. There is
detail missing one possible dimensions and other connections.

FYI: if you used one of those cheap eithernet Tees to create the
junction, I've found them to be very poor at UHF. Use a good quality
one with TFE insulation and test it seperately first.

Allison

## 139. Re: Coaxial folded dipole (was: Natural balun/Antenna on 9/26/2004)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-05 13:40:09 UTC
From: John Smith <kd5yikes@mindspring.com>
Message-ID: <cju87s0hvi@enews1.newsguy.com>
Source record: 88734

<nospam@nouce.bellatlantic.net> wrote in message
news:6d35m0hmi6klr6tnlqp600hl2rbstuhmkp@4ax.com...
> On Mon, 4 Oct 2004 15:19:41 -0500, "John Smith"
> <kd5yikes@mindspring.com> wrote:
>
>>Okay, then, I will present data measured this day for this antenna:
>>
>>http://www.sophisticatedsolutions.us/images/Folded%20Dipole.jpg
>>
>>This is shown in "Antennas for All Applications" on page 820, figure 23-17
>>(a).
>
> Just an off the cuff remark and a possible clue.
>
> It's not clear from the picture or explanation if the center
> conductor is continious from the right half of the antenna to the
> left. I understand the center conductor does not connect to the
> right half at the T.

The center conductor in the right half is not used at all. The right half
should actually be a piece of coax with the center conductor removed.

> For the case that it does continue:
> Looking that the picture, if the right side were parallel to the left
> I'd call that a 1/4 wave 1:1 balun with a shorted load connected
> rather than an antenna. That would result in a significant reactance
> or a short depending on frequency. The sorted load would be the
> continued centor conductor in the right half.
>
> For the case that it does Not continue:
> I'd call that a 1/4 wave 1:1 balun with an open load connected rather
> than an antenna. That would result in a significant reactance again.
>
> There is a third case:
> A connect dot is missing at the junction of the center conductor where
> it meets the shield of the right loop (top center). If the lengths
> were ~1/4 wave for each side then the impedence at the center would
> be high for the left center conductor and the right shield and that
> would likely be a tuneable folded dipole.
>
> Did I miss something about the antenna design?

The center conductor of the left side is connected to the shield of the
right side. The shield of the left side is not connected at the top center.

> As drawn it looks like an attempt to take a parallel line balun (coax
> with a 1/4wave 1:1 balun) and make it serve as a radiator. There is
> detail missing one possible dimensions and other connections.
>
> FYI: if you used one of those cheap eithernet Tees to create the
> junction, I've found them to be very poor at UHF. Use a good quality
> one with TFE insulation and test it seperately first.
>
> Allison

I wound up not using a T. I simply soldered all connections to a BNC
connector at the bottom center of the figure.

John

## 140. Re: Coaxial folded dipole (was: Natural balun/Antenna on 9/26/2004)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-05 14:00:39 UTC
From: John Smith <kd5yikes@mindspring.com>
Message-ID: <cju9ec0jdd@enews1.newsguy.com>
Source record: 88735

"Tam/WB2TT" <t-tammaru@c0mca$t.net> wrote in message
news:FdednWnn75z-nP_cRVn-qg@comcast.com...
>
> "John Smith" <kd5yikes@mindspring.com> wrote in message
> news:cjsqlv01t7o@enews4.newsguy.com...
>>
>> "Tam/WB2TT" <t-tammaru@c0mca$t.net> wrote in message
>> news:as-dnXFen_MlfPzcRVn-rA@comcast.com...
>>>
>>> "John Smith" <kd5yikes@mindspring.com> wrote in message
>>> news:cjsb8u02g8p@enews1.newsguy.com...
>>>> Okay, then, I will present data measured this day for this antenna:
>>>>
>>>> http://www.sophisticatedsolutions.us/images/Folded%20Dipole.jpg
>>>>
>>>> This is shown in "Antennas for All Applications" on page 820, figure
>>>> 23-17 (a).
>>>>
>>>> I built the antenna wholly from RG58. The center conductor of the right
>>>> half is not connected at either end. It is 14.375 inches wide and
>>>> averages a little less than .5 inches between the centers of the top
>>>> and bottom conductors. Where the coax is shown exiting the antenna, is
>>>> a female, flangeless, chassis mount, BNC connector so that I can
>>>> replace the antenna with a short.
>>>>
>>>> My test set up is a VHF oscillator, a vector voltmeter, and a Narda
>>>> dual directional coupler. I use a 66 inch piece of RG58 from the output
>>>> of the directional coupler to go to the antenna. The short circuits I
>>>> use are the best I could make from BNC connectors. The 50 Ohm load I
>>>> used for comparative measurements is one of those used for network
>>>> terminators. Yes, I am aware they are not instrumentation quality, but
>>>> it's what I have.
>>>>
>>>> For a given frequency, I replace the antenna with the short and adjust
>>>> the amplitude of the oscillator and the controls of the vector
>>>> voltmeter so that the reference channel (A) is 10 mV and the phase is
>>>> 180 degrees. I record channel B's amplitude. I then remove the short
>>>> and connect the antenna. I then read and record channels A, channel B,
>>>> and the phase. From these data I calculate the impedance (per HP's AN
>>>> 77-3, thanks to Wes Stewart).
>>>>
>>>> The first item measured is the 50 Ohm terminator. I also measured it at
>>>> the conclusion of the tests to see if there were any differences and
>>>> there were none.

>>>>
>>>> Here are the results computed from the data:
>>>>
>>>> Freq (MHz) Impedance (Ohms)
>>>>
>>>> 410 46.4 + 6.0i (50 Ohm terminator)
>>>>
>>>> 380 9.7 - 12.5
>>>> 390 3.5 - 5.7
>>>> 400 5.1 + 1.3i
>>>> 410 5.1 + 6.5i
>>>> 415 4.0 + 10.0i
>>>> 425 2.5 + 15.7i
>>>> ....................................
>>> John,
>>> Discounting the absolute values, the numbers seem to make sense, except
>>> for the 9.7. Might it have been 2.7? There seems to be resonance at
>>> around 400. The impedance goes more reactive in both directions from
>>> there, and the real part goes down monotonically, except for the 9.7
>>>
>>> I looked at the picture, and it is not 100% obvious to me what gets
>>> connected at the balanced point. Just for kicks, I am going to try that,
>>> somewhere within the range of an MFJ269.
>>>
>>> Tam/WB2TT
>>
>>
>> Hi, Tam -
>>
>> I will try to repeat the test at that frequency.
>>
>> By the balanced point, I assume you mean at the bottom center. It is a
>> female BNC connector, facing downward. A halfwave length of RG58 goes off
>> the left side and folds. The coax is soldered in normal fashion to the
>> connector. Another halfwave piece of RG58 goes off the right side and
>> folds. The center conductor of the right side piece is not connected on
>> either end. The shield of the right side coax is soldered to the shell of
>> the BNC and the two pices of coax is joined as shown in the figure.
>>
>> If by the balanced point you meant at the top center of the figure, the
>> center conductor only of the left side coax is soldered to the shield
>> only of the right side coax.
>>
>> If this description is not clear, let me know and I'll try again. I would
>> take a picture and make it available, but I'm afraid it would only
>> confuse due to lack of detail.
>>
>> Thanks,
>> John
>>

> John, This turned out simpler than I thought. I did a quick and dirty test
> with a folded dipole made up of two 3 foot pieces of RG58, and a feedline
> 1/2 WL at 160 MHz. Unfortunately, this puts me too close to the upper
> limit of the MFJ, but you can see what happens. BTW, I meant the top for
> the balanced point. Turns out it makes no difference whether the center
> conductor of the left side is connected to the center conductor, or the
> shield, of the right side.
>
>
> My numbers:
>
> F R X
> 145 30 89
> 150 10 60
> 155 ? 7? 14? This looks like 165
> 160 8 25
> 165 7 13
> 170.25 6 0
> 175 5 14
>
> I would say that if anything, my numbers make less sense than yours. I
> also got a reading of 1+j0 at about 65 MHz. Don't know what that means,
> other than a dead short. I will hook it up as a regular folded dipole, and
> see if I get anything like 300 Ohms. Probably tomorrow.
>
> Was this claimed to be a 50 Ohm antenna?
>
> Tam/WB2TT

Hey, Tam!

This is great information! According to the dimensions, it should be resonant at 173 MHz. (Close enough... I subtracted 1 inch on each side for the loop). Your 6 Ohms is close enough to my 5 Ohms to satisfy me that I'm not getting useless measurements.

I wouldn't worry about the 65 MHz reading, as that's so far away from resonance that it is probably acting like a shorted half wave transmission line or some other kind of crazy network.

No, there was no statement given about the antenna impedance. That's why I started this thread. I was interested in the antenna because:

1. It is at DC ground.
2. It is a half wave, giving a nice omnidirectional pattern if mounted vertically.
3. No balun is needed as it is inherent.

However, it appears to be not worthwhile after all, owing to its low feedpoint impedance.

I really appreciate you taking the time to perform your experiment. I'm now convinced that the antenna is next to worthless.

Thanks,
John
(KD5YI)

## 141. Re: Coaxial folded dipole (was: Natural balun/Antenna on 9/26/2004)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-05 14:10:19 UTC
From: John Smith <kd5yikes@mindspring.com>
Message-ID: <cjua0f0kb8@enews1.newsguy.com>
Source record: 88736

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:ekh4m0te4qof5q4025gjuoqmka96t5u60p@4ax.com...
> On Mon, 4 Oct 2004 19:30:19 -0500, "John Smith"
> <kd5yikes@mindspring.com> wrote:
>>>>400 5.1 + 1.3i
>> Reference Measurement
>>Freq A1 B1 ?1 A2 B2 ?2
>>400 1 0.79 180 1.08 0.695 177
>
> Hi John,
>
> Well, from the two results above, and referencing my copy of Appl.
> Note 77-3, Page 7, section "Measuring Rho 100 to 1000 MHz," there are
> a number of issues here.
>
> Your B1/A1 is quite off the mark (but certainly correctable, afterall,
> that is the purpose of its measurement).
>
> |Rho| = B2�A1/A2�B1 = 0.695�1/1.08�0.79 = 0.815
>
> Casting the magnitude and angle onto a Smith Chart would suggest your
> 5.1 + 1.3i Ohms is close enough given your data.
>
> The only kicker is port tracking, but I have a hunch that probably is
> not an issue.
>
> This bears further consideration. Too bad Kraus did not choose to
> elaborate.
>
> 73's
> Richard Clark, KB7QHC

I don't understand. Please enumerate the issues. What do you mean B1/A1 is off the mark? If they are off the mark, how can the Z be close enough?

Are you saying that I have calculated the Z correctly from the data and you think port tracking is not at fault? What further consideration?

You're right. Too bad Kraus didn't tell the feedpoint impedance. I suspect I would not have embarked on this folly if he had. The antenna may have its uses elsewhere, but I don't need the headaches of matching 5 Ohms at 440 MHz.

John

## 142. Xerox TDR ??

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-05 14:48:57 UTC
From: Henry Kolesnik <kolesnik@sbcglobal.net>
Message-ID: <tvy8d.2697$q%7.2455@newssvr11.news.prodigy.com>
Source record: 88737
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics.equipment,comp.dcom.lans.ethernet

I just got a Xerox Digital Time Domain Reflectometer Model 600T80024. It's an 8"x9"x3" black plastic box with a LCD readout and 12 digit keypad for programming, and 3 BNCs for input, output for a scope, and sync. A 4 position rotary switch for off, 50 ohm, 75 ohm and monitor. It looks like the cable type and velocity factor as well as other parameters such as meters, feet, or nanoseconds can be programmed. It's portable,battery powered and on powering the LCD indicates XEROX 1985. It seems to work but I get an ERROR indication most of the time because im hacking and don't know what I 'm doing without basic instructions. No luck with Google or xerox.com, xdss.com or their 800 number. Any tips or leads on how to run or program this thing appreicated.
tnx

--
73
Hank WD5JFR

---
Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.772 / Virus Database: 519 - Release Date: 10/1/04

## 143. Re: Coaxial folded dipole (was: Natural balun/Antenna on 9/26/2004)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-05 16:25:59 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <8bi5m0ljde4dbmta5tlcv16bib8ukgkshb@4ax.com>
Source record: 88738

On Tue, 5 Oct 2004 09:10:19 -0500, "John Smith"
<kd5yikes@mindspring.com> wrote:

>I don't understand. Please enumerate the issues. What do you mean B1/A1 is
>off the mark?

Hi John,

You should get 1.0 @ 180ï¿½ (the definition of a short).

> If they are off the mark, how can the Z be close enough?

Because what you DID measure, was used as a correction factor per:
|Rho| = B2ï¿½A1/A2ï¿½B1 = 0.695ï¿½1/1.08ï¿½0.79 = 0.815
(or you skipped that step)

>Are you saying that I have calculated the Z correctly from the data and you
>think port tracking is not at fault?

Well, that is really your job to confirm or deny. There is very
little I can accomplish short of that.

>What further consideration?

I suppose I could visit my Engineering Library. I will be on campus
for my Nanotechnology seminar today anyway.

73's
Richard Clark, KB7QHC

# 144. Re: Coaxial folded dipole (was: Natural balun/Antenna on 9/26/2004)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-05 17:26:06 UTC
From: John Smith <kd5yikes@mindspring.com>
Message-ID: <cjulfh01c7o@enews4.newsguy.com>
Source record: 88739

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:8bi5m0ljde4dbmta5tlcv16bib8ukgkshb@4ax.com...
> On Tue, 5 Oct 2004 09:10:19 -0500, "John Smith"
> <kd5yikes@mindspring.com> wrote:
>
>>I don't understand. Please enumerate the issues. What do you mean B1/A1 is
>>off the mark?
>
> Hi John,
>
> You should get 1.0 @ 180° (the definition of a short).

Well, that's not possible when feeding a length of RG58 at 400 MHz, is it? Remember, I said that there was about a 5 foot length of RG58 between the directional coupler and the load. How can one get 1.0 reflected to the coupler when the load is a short? That requires zero loss coax.

>
>> If they are off the mark, how can the Z be close enough?
>
> Because what you DID measure, was used as a correction factor per:
> |Rho| = B2°A1/A2°B1 = 0.695°1/1.08°0.79 = 0.815
> (or you skipped that step)

I did that. As far as I can determine, I did it like the HP application note said to do it.

Thanks for your comments.

John

## 145. Re: Coaxial folded dipole (was: Natural balun/Antenna on 9/26/2004)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-05 18:07:55 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <nK2dnbMFz4Zsf__cRVn-rQ@comcast.com>
Source record: 88740

John,
I had breakfast with some friends this morning. One of them has a PHD in EE, specializing in antenna design. He thinks the antenna should work, but suggested changing the spacing between the upper and lower conductors. He also told me to look for multiple resonances. I just now tried that, with the spacing essentially 0. What I got was a new resonance at 165 MHz, with Z=18 + j0. . Interestingly, I now seem to have hit parallel resonance, like you did, and R goes down either side of 165. In fact, accross 100 -150 MHz the Z is 0 -jX. When I was messing around with spacing, at one time I got 202 + j0 at 129 MHz; but that is way off calculated frequency. I probably should not be doing this inside, as it is not entirely repeatable.

I also tried a longer piece of coax (RG8X, Vp=.75) that gave me a 5 foot folded dipole. That should be resonant at about 93 MHz. I clearly got multiple resonances:

F R X
92.5 3 j3
100 11 j44
110 80 j181
120 4 j30
127 4 j1
160 53 j14 SWR=1.3
170 11 j0

The feedline was also 5 feet, since I did not know what a wavelengt was going to be. This looks like it wants to be a 160 MHz antenna, instead of 93. Lastly, I tried the 5 foot antennawith a 2 inch feedline.Resonance was at 156 MHz. If I get a chance, I will try it outdoors tomorrow.

Tam/WB2TT

## 146. Re: Xerox TDR ??

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-05 18:45:42 UTC
From: mike <spamme0@juno.com>
Message-ID: <4162EBD6.8010906@juno.com>
Source record: 88741
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics.equipment,comp.dcom.lans.ethernet

Henry Kolesnik wrote:
> I just got a Xerox Digital Time Domain Reflectometer Model 600T80024. It's
> an 8"x9"x3" black plastic box with a LCD readout and 12 digit keypad for
> programming, and 3 BNCs for input, output for a scope, and sync. A 4
> position rotary switch for off, 50 ohm, 75 ohm and monitor. It looks like
> the cable type and velocity factor as well as other parameters such as
> meters, feet, or nanoseconds can be programmed. It's portable,battery
> powered and on powering the LCD indicates XEROX 1985. It seems to work but
> I get an ERROR indication most of the time because im hacking and don't know
> what I 'm doing without basic instructions. No luck with Google or
> xerox.com, xdss.com or their 800 number. Any tips or leads on how to run or
> program this thing appreicated.
> tnx
>

Sounds like the one I have, but mine's called a LANCA DIGITAL TDR.
No other info. Possible that it was marketed under multiple names.
Holler if you find anything.
mike

--
Return address is VALID.
Wanted, 12.1" LCD for Gateway Solo 5300. Samsung LT121SU-121
Wanted GPIB Card for PC.
Bunch of stuff For Sale and Wanted at the link below.
http://www.geocities.com/SiliconValley/Monitor/4710/

## 147. HFANT antenna data file for Windom

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-05 19:00:51 UTC
From: Thierry <->
Message-ID: <4162ef67$1@news.vo.lu>
Source record: 88742

Hi,

Using the HFANT program from VOACAP suites, I am looking for a data file
(settings) of a classic Windom antenna

Could someone provide me this file ?

Thanks in advance

Thierry, ON4SKY
http://www.astrosurf.com/lombry

## 148. Re: Owner's manual for the discontinued Radio Shack 15-1853 loop

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-05 19:01:33 UTC
From: kashe@sonic.net
Message-ID: <flr5m0tmq6r6ur40s7ngc1gcsseikr1m7i@4ax.com>
Source record: 88743
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

On 3 Oct 2004 15:15:00 -0700, usmcemen@hotmail.com (Cez) wrote:

>Greetings, all--
>
>I just purchased the very last in-store stock of the 15-1853 here in
>the DC area ($10 clearance) -- unfortunately, it was the store's old
>floor display model, which was missing its box, the manual, and the
>wire to run to the external AM and ground connections on the back of
>my new GE SRIII.
>
>Since the 15-1853 has long since been discontinued, the Radio Shack
>website no longer posts the online version of its owner's manual,

<http://support.radioshack.com/productinfo/DocumentResults.asp?sku_id=15-1853&Name=Manuals%20for%2015-1853&Reuse=N>

Shows owner's manual in English and Spanish, plus other doc
and a parts list.

When in doubt, just put the catalog number in the search box.
This one went direct to the support docs due, I guess, to the product
itself being out of production.

>which I'm trying to track down (I need it for schematics and/or tips
>on the optimal cable I'll need to run from the loop to the radio, plus
>it's just my personal habit to always have owner's manuals around
>'just in case'). I also tried the 'Wayback Machine' at archive.org to
>see if I could access the manual from earlier versions of the Radio
>Shack website, but no dice...
>
>If anyone happens to have a copy of the 15-1853's online owner's
>manual on hand, I'd certainly be most appreciative to receive a copy
>via e-mail.
>
>Many thanks!
>
>- Cez.

## 149. Re: Radial installation method

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-05 19:10:04 UTC
From: kashe@sonic.net
Message-ID: <las5m017tjj203b5c4o5e64ukiujmqedu4@4ax.com>
Source record: 88744

On Sun, 03 Oct 2004 18:19:13 -0400, Mike Coslo <mcoslo@adelphia.net>
wrote:

>I just got done installing radials for a new antenna, and was distressed
>at the amount of time it was taking.
>
>I was looking at some power tools that might speed up the trenching
>process. Power edgers looked promising, but were 90 - 100 dollars for
>electrical models, and more for the gas powered ones.
>
>Finally I hit on something. I bought an inexpensive electric chainsaw.
>I'm sure the neighbors thought I was a lunatic, but trenching for the
>radials took surprisingly little time. So I laid all my radials in one
>afternoon. It would have taken even less time if there had been an extra
>person around to help.
>
>Caveats:
>
> This is of course *dangerous* - don't ever do it!!! Chainsaws are sharp
>and nasty.
>
> It wore out the Chainsaw chain. That really isn't a big deal. I'm just
>going to save it for the next time I need to trench radials.
>
> The chainsaw needs washed and lubed after trenching.
>
> But it was quick. The radials are in, the post for the vertical is in
>and concrete setting as I write.
>
> Just thought I'd share this with the group. I never saw anyone else
>saying they did anything similar, so I either stumbled on something, or
>I'm completely whacked! ;^)
>
> - Mike KB3EIA -

You've reinvented the Ditch Witch in a smaller, non-riding
version. Or is the Ditch Witch just a big chainsaw with a seat?

## 150. Re: Radial installation method

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-05 19:13:57 UTC
From: kashe@sonic.net
Message-ID: <0ds5m0pfc1q9rh4rsfno2cqscgs5po592f@4ax.com>
Source record: 88745

On Sun, 03 Oct 2004 22:25:22 -0400, Mike Coslo <mcoslo@adelphia.net>
wrote:

>
>
>Hal Rosser wrote:
>
>> "Mike Coslo" <mcoslo@adelphia.net> wrote in message
>> news:lrCdne8ikY9A5_3cRVn-uA@adelphia.com...
>>
>>>I just got done installing radials for a new antenna, and was distressed
>>>at the amount of time it was taking.
>>>
>>>I was looking at some power tools that might speed up the trenching
>>>process. Power edgers looked promising, but were 90 - 100 dollars for
>>>electrical models, and more for the gas powered ones.
>>>
>>>Finally I hit on something. I bought an inexpensive electric chainsaw.
>>>I'm sure the neighbors thought I was a lunatic, but trenching for the
>>>radials took surprisingly little time. So I laid all my radials in one
>>>afternoon. It would have taken even less time if there had been an extra
>>>person around to help.
>>>
>>>Caveats:
>>>
>>>This is of course *dangerous* - don't ever do it!!! Chainsaws are sharp
>>>and nasty.
>>>
>>>It wore out the Chainsaw chain. That really isn't a big deal. I'm just
>>>going to save it for the next time I need to trench radials.
>>>
>>>The chainsaw needs washed and lubed after trenching.

And the groove in the bar may be more V-shaped than when you
started. I once used a friend's well-used chainsaw and the chain could
wobble a bit in the groove because it was no longre a parallel-walled
groove. Not sure if this makes it easier for the chain to jump out. I
didn't use it for long.

>>>
>>>But it was quick. The radials are in, the post for the vertical is in
>>>and concrete setting as I write.
>>>
>>>Just thought I'd share this with the group. I never saw anyone else
>>>saying they did anything similar, so I either stumbled on something, or

>>>I'm completely whacked! ;^)
>>>
>>>- Mike KB3EIA -
>>>
>>
>>
>> Bravo! Thanks for the new addition for our bag of tricks.
>> The cost of a new chain is nothing compared to the labor savings.
>> How's the back from bending over that long?
>
> The back is getting a bit sore as the evening wears on. I can only
>guess that it would have been worse with the other methods form the time
>I would have had to be bending.
>
>
> One unexpected sore part is the fingers of my left hand got their nails
>worn down and the skin is tender now - kind of like when a person first
>plays the guitar. Probably from pushing and guiding the radial wires on
>the ground as I pushed them under. Gloves for me the next time!

How about gloves plus a foot long piece of lath to do the
pushing?

## 151. Re: Xerox TDR ??

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-05 19:22:51 UTC
From: Henry Kolesnik <kolesnik@sbcglobal.net>
Message-ID: <fwC8d.2761$q%7.1863@newssvr11.news.prodigy.com>
Source record: 88746
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics.equipment,comp.dcom.lans.ethernet

I've posted a pix on: alt.binaries.pictures.radio
"mike" <spamme0@juno.com> wrote in message news:4162EBD6.8010906@juno.com...
> Henry Kolesnik wrote:
> > I just got a Xerox Digital Time Domain Reflectometer Model 600T80024.
It's
> > an 8"x9"x3" black plastic box with a LCD readout and 12 digit keypad for
> > programming, and 3 BNCs for input, output for a scope, and sync. A 4
> > position rotary switch for off, 50 ohm, 75 ohm and monitor. It looks
like
> > the cable type and velocity factor as well as other parameters such as
> > meters, feet, or nanoseconds can be programmed. It's portable,battery
> > powered and on powering the LCD indicates XEROX 1985. It seems to work
but
> > I get an ERROR indication most of the time because im hacking and don't
know
> > what I 'm doing without basic instructions. No luck with Google or
> > xerox.com, xdss.com or their 800 number. Any tips or leads on how to
run or
> > program this thing appreicated.
> > tnx
> >
>
> Sounds like the one I have, but mine's called a LANCA DIGITAL TDR.
> No other info. Possible that it was marketed under multiple names.
> Holler if you find anything.
> mike
>
> --
> Return address is VALID.
> Wanted, 12.1" LCD for Gateway Solo 5300. Samsung LT121SU-121
> Wanted GPIB Card for PC.
> Bunch of stuff For Sale and Wanted at the link below.
> http://www.geocities.com/SiliconValley/Monitor/4710/
>

---
Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.772 / Virus Database: 519 - Release Date: 10/1/04

## 152. Re: Owner's manual for the discontinued Radio Shack 15-1853 loop

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-05 19:57:37 UTC
From: "Gary S." <Idontwantspam@net>
Message-ID: <gvu5m0hs9vdllco17qdfkq3ar9g56nucfk@4ax.com>
Source record: 88747
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

On Tue, 05 Oct 2004 19:01:33 GMT, kashe@sonic.net wrote:

> When in doubt, just put the catalog number in the search box.
>This one went direct to the support docs due, I guess, to the product
>itself being out of production.
>
On the RS website, their search engine seems to differentiate between
catalog numbers WITH a hyphen (15-351), and those without (15351).
This is different than many other search engines, where looking up one
will find both versions.

I would suggest entering it both ways to do a complete search of the
RS archives.

Happy trails,
Gary (net.yogi.bear)
---
at the 51st percentile of ursine intelligence

Gary D. Schwartz, Needham, MA, USA
Please reply to: garyDOTschwartzATpoboxDOTcom

## 153. Re: Coaxial folded dipole (was: Natural balun/Antenna on 9/26/2004)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-05 20:06:31 UTC
From: Wes Stewart <n7ws_@_yahoo.com>
Message-ID: <dpq5m052p8q75bo8f33gu3gssr31rb1meh@4ax.com>
Source record: 88748

```
On Mon, 4 Oct 2004 20:58:07 -0500, "John Smith"
<kd5yikes@mindspring.com> wrote:

|
|"Wes Stewart" <n7ws_@_yahoo.com> wrote in message
|news:9fk3m0dm4cdg77e0f12qtp6spvva80gtrh@4ax.com...
|> On Mon, 4 Oct 2004 16:45:31 -0500, "John Smith"
|> <kd5yikes@mindspring.com> wrote:
|
|Freq (MHz) Impedance (Ohms)
|
|410 46.4 + 6.0i (50 Ohm terminator)
|
|380 9.7 - 12.5
|390 3.5 - 5.7
|400 5.1 + 1.3i
|410 5.1 + 6.5i
|415 4.0 + 10.0i
|425 2.5 + 15.7i
|
|
|> |> 3) How well is your signal source terminated, in other words do you
|> |> know its source match?
|> |
|> |
|> |I only know that the signal source is an HP 3200B. It directly feeds the
|> |Narda dual directional coupler through a few feet of RG58.
|>
|> If I remember that correctly the '3200 is nothing but a p-p oscillator
|> and a waveguide-below-cutoff probe. If your VVM reference probe
|> readings are changing much between frequencies and/or
|> calibration/measurement, try a 6 or 10 dB pad right on the generator
|> output and see what happens.
|>
|> When you're calibrating using a short, the source Z has really got to
|> be nailed down.
|>
|> Wes
|
|
|Okay. I repeated the test using an HP 355C attenuator set for 10 dB and at
|400 MHz got 4 + 3i on the antenna. I also checked my 50 Ohm network
|terminator with this setup and it measured 44 + 4i. The data are different,
|but they're not an order of magnitude different, at least.
```

|
|So, although my measurements aren't repeatable, they are sloppily
|consistent. That is, although I can't say exactly what the antenna impedance
|is with confidence, I am beginning to believe that it really is very low in
|impedance. Am I drawing an erroneous conclusion too early? I can wait a
|little longer to draw an erroneous conclusion.

First of all, neglecting the feed method, the antenna is a simple folded dipole. In free space, or an approximation thereof, it should have a feedpoint Z of about 300 ohm. (See the ARRL Antenna book for a description of why this is so under "Special Antenna Types", p.2-32 in the 17th edition) In the presence of other (non-resonant) objects, it may differ from this but not a whole lot.

In theory, the "natural balun" doesn't change the impedance of the feedpoint whatsoever. By "feedpoint" I mean the gap between the ends of the folded element, not the "tee" connection opposite.

At the outside of the tee connection, the voltage is zero thus this point can be grounded, connected to the boom in a Yagi, etc. without upsetting anything. Likewise the coax feeder can be introduced here and run through one side of the element without upsetting anything either.

But, a nominal 300 ohm load is terminating a 50 ohm line, so the usual transforming effects are in play. The input Z of an arbitrary length line is---well, arbitrary. If the line is many wavelengths long, then when the frequency is changed, the long lines effect kicks in and the input Z is going to vary rapidly with respect to frequency.

Second. I believe that you need to determine the parameters of your directional coupler. As Richard pointed out, your B1/A1 numbers are pretty unstable.

So here's what I recommend. First verify that the "A" and "B" probes read the same thing when connected to the same source. Then put your pad right at the input connector of the coupler. Terminate the reverse port and connect your VVM "A" probe to the ouput connector and the "B" probe to the forward port.

The ratio reading is the forward coupling factor of the directional coupler. Vary the frequency and see how this changes and note some values. Move the "B" probe to the reverse port and terminate the forward port. Note the readings at the same frequency.

Reverse the input and output ports and repeat the measurements. Ideally, the data sets will track closely. If they don't then you have a problem. Serious differences might indicate damage to the internal terminations. This assumes that this is a true dual coupler and not single line coupler with the termination applied to the unused port externally.

If the numbers are consistant, then you can determine the directivity by computing the ratio between the two readings on a given port when the coupler is reversed.

I'm going to stop here and assume you understand the consquences of poor directivity on measurement accuracy. If you don't then I can expound further later.

Wes

## 154. Re: Coaxial folded dipole (was: Natural balun/Antenna on 9/26/2004)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-05 20:23:52 UTC
From: John Smith <kd5yikes@mindspring.com>
Message-ID: <cjuvss0209i@enews4.newsguy.com>
Source record: 88749

"Tam/WB2TT" <t-tammaru@c0mca$t.net> wrote in message
news:nK2dnbMFz4Zsf__cRVn-rQ@comcast.com...
> John,
> I had breakfast with some friends this morning. One of them has a PHD in
> EE, specializing in antenna design. He thinks the antenna should work, but
> suggested changing the spacing between the upper and lower conductors. He
> also told me to look for multiple resonances. I just now tried that, with
> the spacing essentially 0. What I got was a new resonance at 165 MHz, with
> Z=18 + j0. . Interestingly, I now seem to have hit parallel resonance,
> like you did, and R goes down either side of 165. In fact, accross
> 100 -150 MHz the Z is 0 -jX. When I was messing around with spacing, at
> one time I got 202 + j0 at 129 MHz; but that is way off calculated
> frequency. I probably should not be doing this inside, as it is not
> entirely repeatable.
>
> I also tried a longer piece of coax (RG8X, Vp=.75) that gave me a 5 foot
> folded dipole. That should be resonant at about 93 MHz. I clearly got
> multiple resonances:
>
> F R X
> 92.5 3 j3
> 100 11 j44
> 110 80 j181
> 120 4 j30
> 127 4 j1
> 160 53 j14 SWR=1.3
> 170 11 j0
>
> The feedline was also 5 feet, since I did not know what a wavelengt was
> going to be. This looks like it wants to be a 160 MHz antenna, instead of
> 93. Lastly, I tried the 5 foot antennawith a 2 inch feedline.Resonance was
> at 156 MHz. If I get a chance, I will try it outdoors tomorrow.
>
> Tam/WB2TT

Thanks for the hard work, Tam. I'm not sure I know what to make of all this,
but it appears that the antenna is not what I thought it would be.

Thanks again.

John

## 155. Re: Coaxial folded dipole (was: Natural balun/Antenna on 9/26/2004)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-05 20:26:52 UTC
From: John Smith <kd5yikes@mindspring.com>
Message-ID: <cjv02h020kn@enews4.newsguy.com>
Source record: 88750

```
"Wes Stewart" <n7ws_@_yahoo.com> wrote in message
news:dpq5m052p8q75bo8f33gu3gssr31rb1meh@4ax.com...
> On Mon, 4 Oct 2004 20:58:07 -0500, "John Smith"
> <kd5yikes@mindspring.com> wrote:
>
> |
> |"Wes Stewart" <n7ws_@_yahoo.com> wrote in message
> |news:9fk3m0dm4cdg77e0f12qtp6spvva80gtrh@4ax.com...
> |> On Mon, 4 Oct 2004 16:45:31 -0500, "John Smith"
> |> <kd5yikes@mindspring.com> wrote:
> |
> |Freq (MHz) Impedance (Ohms)
> |
> |410 46.4 + 6.0i (50 Ohm terminator)
> |
> |380 9.7 - 12.5
> |390 3.5 - 5.7
> |400 5.1 + 1.3i
> |410 5.1 + 6.5i
> |415 4.0 + 10.0i
> |425 2.5 + 15.7i
> |
> |
> |> |> 3) How well is your signal source terminated, in other words do you
> |> |> know its source match?
> |> |
> |> |
> |> |I only know that the signal source is an HP 3200B. It directly feeds
> the
> |> |Narda dual directional coupler through a few feet of RG58.
> |>
> |> If I remember that correctly the '3200 is nothing but a p-p oscillator
> |> and a waveguide-below-cutoff probe. If your VVM reference probe
> |> readings are changing much between frequencies and/or
> |> calibration/measurement, try a 6 or 10 dB pad right on the generator
> |> output and see what happens.
> |>
> |> When you're calibrating using a short, the source Z has really got to
> |> be nailed down.
> |>
> |> Wes
> |
> |
> |Okay. I repeated the test using an HP 355C attenuator set for 10 dB and
```

> at
> |400 MHz got 4 + 3i on the antenna. I also checked my 50 Ohm network
> |terminator with this setup and it measured 44 + 4i. The data are
> different,
> |but they're not an order of magnitude different, at least.
> |
> |So, although my measurements aren't repeatable, they are sloppily
> |consistent. That is, although I can't say exactly what the antenna
> impedance
> |is with confidence, I am beginning to believe that it really is very low
> in
> |impedance. Am I drawing an erroneous conclusion too early? I can wait a
> |little longer to draw an erroneous conclusion.
>
> First of all, neglecting the feed method, the antenna is a simple
> folded dipole. In free space, or an approximation thereof, it should
> have a feedpoint Z of about 300 ohm. (See the ARRL Antenna book for a
> description of why this is so under "Special Antenna Types", p.2-32 in
> the 17th edition) In the presence of other (non-resonant) objects, it
> may differ from this but not a whole lot.
>
> In theory, the "natural balun" doesn't change the impedance of the
> feedpoint whatsoever. By "feedpoint" I mean the gap between the ends
> of the folded element, not the "tee" connection opposite.
>
> At the outside of the tee connection, the voltage is zero thus this
> point can be grounded, connected to the boom in a Yagi, etc. without
> upsetting anything. Likewise the coax feeder can be introduced here
> and run through one side of the element without upsetting anything
> either.
>
> But, a nominal 300 ohm load is terminating a 50 ohm line, so the usual
> transforming effects are in play. The input Z of an arbitrary length
> line is---well, arbitrary. If the line is many wavelengths long, then
> when the frequency is changed, the long lines effect kicks in and the
> input Z is going to vary rapidly with respect to frequency.
>
> Second. I believe that you need to determine the parameters of your
> directional coupler. As Richard pointed out, your B1/A1 numbers are
> pretty unstable.
>
> So here's what I recommend. First verify that the "A" and "B" probes
> read the same thing when connected to the same source. Then put your
> pad right at the input connector of the coupler. Terminate the
> reverse port and connect your VVM "A" probe to the ouput connector and
> the "B" probe to the forward port.
>
> The ratio reading is the forward coupling factor of the directional
> coupler. Vary the frequency and see how this changes and note some
> values. Move the "B" probe to the reverse port and terminate the

> forward port. Note the readings at the same frequency.
>
> Reverse the input and output ports and repeat the measurements.
> Ideally, the data sets will track closely. If they don't then you
> have a problem. Serious differences might indicate damage to the
> internal terminations. This assumes that this is a true dual coupler
> and not single line coupler with the termination applied to the unused
> port externally.
>
> If the numbers are consistant, then you can determine the directivity
> by computing the ratio between the two readings on a given port when
> the coupler is reversed.
>
> I'm going to stop here and assume you understand the consquences of
> poor directivity on measurement accuracy. If you don't then I can
> expound further later.
>
> Wes

Thanks, Wes. I'm going to have to stop the experiments for a few days, but I'll try to get back to you.

John

## 156. Re: Coaxial folded dipole (was: Natural balun/Antenna on 9/26/2004)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-05 20:59:32 UTC
From: John Smith <kd5yikes@mindspring.com>
Message-ID: <cjv1vo0247s@enews4.newsguy.com>
Source record: 88751

"Wes Stewart" <n7ws_@_yahoo.com> wrote in message
news:dpq5m052p8q75bo8f33gu3gssr31rb1meh@4ax.com...
> On Mon, 4 Oct 2004 20:58:07 -0500, "John Smith"
> <kd5yikes@mindspring.com> wrote:

> Second. I believe that you need to determine the parameters of your
> directional coupler. As Richard pointed out, your B1/A1 numbers are
> pretty unstable.
>
> So here's what I recommend. First verify that the "A" and "B" probes
> read the same thing when connected to the same source.

I put the oscillator to the center of the HP Power Splitter. I then put a
probe tee on each of the splitter outputs followed by a 50 Ohm terminator.
The difference between the A and B channels was maybe a needle's width.
Reversing the splitter made no difference. Swapping the terminators made no
difference.

> Then put your
> pad right at the input connector of the coupler. Terminate the
> reverse port and connect your VVM "A" probe to the ouput connector and
> the "B" probe to the forward port.
>
> The ratio reading is the forward coupling factor of the directional
> coupler. Vary the frequency and see how this changes and note some
> values. Move the "B" probe to the reverse port and terminate the
> forward port. Note the readings at the same frequency.

From 350 MHz to 450 MHz the forward port coupling was -25.9 dB to -26.2 dB.

> Reverse the input and output ports and repeat the measurements.
> Ideally, the data sets will track closely.

I got the same here within about a tenth of a dB.

> If they don't then you
> have a problem. Serious differences might indicate damage to the
> internal terminations. This assumes that this is a true dual coupler
> and not single line coupler with the termination applied to the unused
> port externally.
>
> If the numbers are consistant, then you can determine the directivity
> by computing the ratio between the two readings on a given port when
> the coupler is reversed.
>
> I'm going to stop here and assume you understand the consquences of

> poor directivity on measurement accuracy. If you don't then I can
> expound further later.
>
> Wes

I guess it looks okay. Thanks, Wes.

John (KD5YI)

## 157. Re: Xerox TDR ??

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-05 22:05:19 UTC
From: mike <spamme0@juno.com>
Message-ID: <41631A9F.9050305@juno.com>
Source record: 88752
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics.equipment,comp.dcom.lans.ethernet

Henry Kolesnik wrote:
> I've posted a pix on: alt.binaries.pictures.radio
> "mike" <spamme0@juno.com> wrote in message news:4162EBD6.8010906@juno.com...
>

Jeeezzz! Couldn't you find a bigger picture? Took 5 minutes to
download the thing. Compression is your (my) friend.
Looks like mine except I have more positions on the switch.
mike

>>Henry Kolesnik wrote:
>>
>>>I just got a Xerox Digital Time Domain Reflectometer Model 600T80024.
>>
> It's
>
>>>an 8"x9"x3" black plastic box with a LCD readout and 12 digit keypad for
>>>programming, and 3 BNCs for input, output for a scope, and sync. A 4
>>>position rotary switch for off, 50 ohm, 75 ohm and monitor. It looks
>>
> like
>
>>>the cable type and velocity factor as well as other parameters such as
>>>meters, feet, or nanoseconds can be programmed. It's portable,battery
>>>powered and on powering the LCD indicates XEROX 1985. It seems to work
>>
> but
>
>>>I get an ERROR indication most of the time because im hacking and don't
>>
> know
>
>>>what I 'm doing without basic instructions. No luck with Google or
>>>xerox.com, xdss.com or their 800 number. Any tips or leads on how to
>>
> run or
>
>>>program this thing appreicated.
>>>tnx
>>>
>>
>>Sounds like the one I have, but mine's called a LANCA DIGITAL TDR.
>>No other info. Possible that it was marketed under multiple names.
>>Holler if you find anything.

>>mike
>>
>>--
>>Return address is VALID.
>>Wanted, 12.1" LCD for Gateway Solo 5300. Samsung LT121SU-121
>>Wanted GPIB Card for PC.
>>Bunch of stuff For Sale and Wanted at the link below.
>>http://www.geocities.com/SiliconValley/Monitor/4710/
>>
>
>
>
> ---
> Outgoing mail is certified Virus Free.
> Checked by AVG anti-virus system (http://www.grisoft.com).
> Version: 6.0.772 / Virus Database: 519 - Release Date: 10/1/04
>
>

--
Return address is VALID.
Wanted, 12.1" LCD for Gateway Solo 5300. Samsung LT121SU-121
Wanted GPIB Card for PC.
Bunch of stuff For Sale and Wanted at the link below.
http://www.geocities.com/SiliconValley/Monitor/4710/

## 158. Re: Mobile HF antenna melting....

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-05 22:51:19 UTC
From: pete365 <pete365@yahoo.com>
Message-ID: <41632567.4080609@yahoo.com>
Source record: 88753

Thanks for the input , everyone. Pete N1AGV

Crazy George wrote:

>This is strictly a guess, but I tried the Hustler on 75 meters when it first came out back in the 50s. I quickly
>developed the impression that the principal impedance matching device was the lossy coil. VSWR was good, signal reports
>were lousy. Needless to say, I went back to a bugcatcher and a base matching coil.
>
>--
>Crazy George
>Remove N O and S P A M imbedded in return address
>"pete365" <pete365@yahoo.com> wrote in message news:415FFB17.7070900@yahoo.com...
>
>
>>I didn't think that the wip would go that far down. I guess what I'm
>>asking , is it normal for the coil to get hot when I go key down for a
>>couple of minutes. Has anyone had one of these apart? what kind of coil
>>is it? Pete N1AGV
>>
>>'Doc wrote:
>>
>>
>>
>>>Pete,
>>> By any chance was the whip/upper portion of the antenna extended
>>>down into the coil? As in a 'core' in the coil which shouldn't be
>>>there, that sort of thing?
>>> 'Doc
>>>
>>>
>>
>>
>
>
>
>

## 159. Re: Coaxial folded dipole (was: Natural balun/Antenna on 9/26/2004)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-05 23:08:56 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <os96m094lldqgkg8qlngo1ik180sj0nar4@4ax.com>
Source record: 88754

On Tue, 5 Oct 2004 12:26:06 -0500, "John Smith"
<kd5yikes@mindspring.com> wrote:

>> You should get 1.0 @ 180ï¿½ (the definition of a short).
>
>Well, that's not possible when feeding a length of RG58 at 400 MHz, is it?
>Remember, I said that there was about a 5 foot length of RG58 between the
>directional coupler and the load. How can one get 1.0 reflected to the
>coupler when the load is a short? That requires zero loss coax.

Hi John,

As Wes suggests, butt up the load against the directional coupler
output and eliminate this arbitrary loss of the 5 foot RG58. It
should also shift the readings too (you are simply walking around the
circle of constant SWR). One question that would be obviated in this
process (but I have to ask anyway) is WHERE was this short you
applied? At the output port of the coupler, or at the end of this 5
foot RG58? (Same question applies to the calibrated load).

The other measurements that you reported in response to Wes indicate
you have tracking ports (even if they are off by 4dB). As I said, it
seemed unlikely this would be a problem and it confirms the
out-of-octave specification.

73's
Richard Clark, KB7QHC

## 160. Re: Coaxial folded dipole (was: Natural balun/Antenna on 9/26/2004)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-05 23:21:26 UTC
From: Wes Stewart <n7ws_@_yahoo.com>
Message-ID: <ura6m0d82lmo0mkfit42di1306pnit3ej5@4ax.com>
Source record: 88755

```
On Tue, 5 Oct 2004 15:59:32 -0500, "John Smith"
<kd5yikes@mindspring.com> wrote:

|
|"Wes Stewart" <n7ws_@_yahoo.com> wrote in message
|news:dpq5m052p8q75bo8f33gu3gssr31rb1meh@4ax.com...
|> On Mon, 4 Oct 2004 20:58:07 -0500, "John Smith"
|> <kd5yikes@mindspring.com> wrote:
|
|> Second. I believe that you need to determine the parameters of your
|> directional coupler. As Richard pointed out, your B1/A1 numbers are
|> pretty unstable.
|>
|> So here's what I recommend. First verify that the "A" and "B" probes
|> read the same thing when connected to the same source.
|
|I put the oscillator to the center of the HP Power Splitter. I then put a
|probe tee on each of the splitter outputs followed by a 50 Ohm terminator.
|The difference between the A and B channels was maybe a needle's width.
|Reversing the splitter made no difference. Swapping the terminators made no
|difference.

Excellent.
|
|
|> Then put your
|> pad right at the input connector of the coupler. Terminate the
|> reverse port and connect your VVM "A" probe to the ouput connector and
|> the "B" probe to the forward port.
|>
|> The ratio reading is the forward coupling factor of the directional
|> coupler. Vary the frequency and see how this changes and note some
|> values. Move the "B" probe to the reverse port and terminate the
|> forward port. Note the readings at the same frequency.
|
|From 350 MHz to 450 MHz the forward port coupling was -25.9 dB to -26.2 dB.

Okay. Not per nameplate, but now you know.
|
|> Reverse the input and output ports and repeat the measurements.
|> Ideally, the data sets will track closely.
|
|
|I got the same here within about a tenth of a dB.
```

Great.
|
|
|> If they don't then you
|> have a problem. Serious differences might indicate damage to the
|> internal terminations. This assumes that this is a true dual coupler
|> and not single line coupler with the termination applied to the unused
|> port externally.
|>
|> If the numbers are consistant, then you can determine the directivity
|> by computing the ratio between the two readings on a given port when
|> the coupler is reversed.

You still need to do this.

|>
|> I'm going to stop here and assume you understand the consquences of
|> poor directivity on measurement accuracy. If you don't then I can
|> expound further later.
|>
|> Wes
|
|
|I guess it looks okay. Thanks, Wes.

You're welcome.

Wes

## 161. Re: Coaxial folded dipole (was: Natural balun/Antenna on 9/26/2004)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-06 00:35:27 UTC
From: John Smith <kd5yikes@mindspring.com>
Message-ID: <cjvekk01ao@enews1.newsguy.com>
Source record: 88756

"Wes Stewart" <n7ws_@_yahoo.com> wrote in message
news:ura6m0d82lmo0mkfit42di1306pnit3ej5@4ax.com...
> On Tue, 5 Oct 2004 15:59:32 -0500, "John Smith"
> <kd5yikes@mindspring.com> wrote:

> |> If the numbers are consistant, then you can determine the directivity
> |> by computing the ratio between the two readings on a given port when
> |> the coupler is reversed.
>
> You still need to do this.
>

Do what? They are both -26.2 dB. I don't understand.

John

# 162. Re: Coaxial folded dipole (was: Natural balun/Antenna on 9/26/2004)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-06 00:35:53 UTC
From: John Smith <kd5yikes@mindspring.com>
Message-ID: <cjveld01ct@enews1.newsguy.com>
Source record: 88757

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:os96m094lldqgkg8qlngo1ik180sj0nar4@4ax.com...
> On Tue, 5 Oct 2004 12:26:06 -0500, "John Smith"
> <kd5yikes@mindspring.com> wrote:
>
>>> You should get 1.0 @ 180° (the definition of a short).
>>
>>Well, that's not possible when feeding a length of RG58 at 400 MHz, is it?
>>Remember, I said that there was about a 5 foot length of RG58 between the
>>directional coupler and the load. How can one get 1.0 reflected to the
>>coupler when the load is a short? That requires zero loss coax.
>
> Hi John,
>
> As Wes suggests, butt up the load against the directional coupler
> output and eliminate this arbitrary loss of the 5 foot RG58. It
> should also shift the readings too (you are simply walking around the
> circle of constant SWR). One question that would be obviated in this
> process (but I have to ask anyway) is WHERE was this short you
> applied? At the output port of the coupler, or at the end of this 5
> foot RG58? (Same question applies to the calibrated load).

I used a 66 inch piece of RG58 between the directional coupler and the load.
It was at the load end of this piece of coax that I calibrated with a short
and made the load measurements.

> The other measurements that you reported in response to Wes indicate
> you have tracking ports (even if they are off by 4dB). As I said, it
> seemed unlikely this would be a problem and it confirms the
> out-of-octave specification.
>
> 73's
> Richard Clark, KB7QHC

## 163. Re: Coaxial folded dipole (was: Natural balun/Antenna on 9/26/2004)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-06 01:44:07 UTC
From: John Smith <kd5yikes@mindspring.com>
Message-ID: <cjvila02lhs@enews2.newsguy.com>
Source record: 88758

"Wes Stewart" <n7ws_@_yahoo.com> wrote in message
news:ura6m0d82lmo0mkfit42di1306pnit3ej5@4ax.com...
> On Tue, 5 Oct 2004 15:59:32 -0500, "John Smith"
> <kd5yikes@mindspring.com> wrote:
>

> |> If the numbers are consistant, then you can determine the directivity
> |> by computing the ratio between the two readings on a given port when
> |> the coupler is reversed.
>
> You still need to do this.
>

Hi, Wes -

I read a little about directivity (a little was all I could find). Tell me
if I measured it correctly...

Forward directivity:
Normal setup, ie coupler in the usual direction (forward). Best 50 Ohm load
I could muster on the antenna (output) terminal of the coupler. Set channel
A for 0 dB. Channel B reads -29.2 dB.

Forward Open/Short characteristic:
Remove the 50 Ohm load. Set channel A for 0 dB. Channel B reads +.4 dB. Put
the HP calibrated short on the antenna terminal. Set channel A for 0 dB.
Channel B reads -1.2 dB.

Reverse directivity:
Reverse the coupler. The antenna connector now has the oscillator applied.
The BTS terminal has the 50 Ohm load. Set channel A for 0 dB. Channel B
reads -23 dB.

Reverse Open/Short characteristic:
Remove the 50 Ohm load. Set channel A for 0 dB. Channel B reads +1.1 dB. Put
the HP calibrated short on the BTS (now the output) terminal. Set channel A
for 0 dB. Channel B reads -.5 dB.

So, in the forward direction, the directivity is -29.2 dB, and in the
reverse direction, the directivity is -23 dB. Yes?

What do I do with these results? I don't know how to apply them even though
I read the HP paper.

Thanks.

John (KD5YI)

By the way, if you (or anyone else) need to contact me via email, you can omit the kes in the address.

## 164. Looking for ant measurement software/hardware

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-06 02:27:55 UTC
From: Mike <km6ab@pacbell.net>
Message-ID: <LKI8d.7251$nj.5419@newssvr13.news.prodigy.com>
Source record: 88759

I am looking for advice in choosing an economical antenna turntable and software package for analyzing antenna patterns on small microwave dish antennas. I have RF sources, reference horns and HP Spectrum Analyzers available as well as HP Vector Network Analyzers. I have seen software used in the past that runs an HP Spectrum Analyzer for collecting data. The software was geared towards the satellite industry where the antenna positioner was run separately from the data collection software, which allowed you to enter the speed of the positioner and the spectrum analyzer sweep speed was matched to the positioner speed and amount of rotation. The software also centered the peak of the beam on the plot and allowed you to fiddle with parameters. I am considering using a Daedal precision turntable as I only need azimuth cuts up to 180deg, but would like to know if there is a specific industry accepted positioner that is cheaper. I am also having trouble locating data collection software as I described. I found a company that has a software/turntable system, but itï¿½s a bit overkill at $18k. There must be something that will do a satisfactory job at a cheaper price. Any comments?
TIA,
Mike

## 165. Re: 18nH Inductor

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-06 02:42:20 UTC
From: Joe <nuisancewildlife@nospamearthlink.net>
Message-ID: <gYI8d.5843$Vm1.1794@newsread3.news.atl.earthlink.net>
Source record: 88760
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

"Tom Bruhns" <k7itm@aol.com> wrote in message
news:3200347.0410041033.9a87e75@posting.google.com...
> "Joe" <nuisancewildlife@nospamearthlink.net> wrote in message
news:<pk17d.6019$ls6.4814@newsread3.news.atl.earthlink.net>...
> > "Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
> > news:cji081$nq7$1@titan.btinternet.com...
> > > An 18 nano-henry inductor seems, to me, to be an impractical inductor
> > value.
>
> ;-) You just aren't working with small enough, high enough frequency
> circuits, Reg.
>
> 3 turns of 28AWG on a 4-40 (USA) screw (remove the screw, of course)
> will give you about 18 nH. Unloaded Q at 440MHz will be around 200.
> >
> > The link to the schematic is:
> > http://www.radiotronix.com/downloads/433_pair.pdf
>
> Easy enough to use SMT components soldered to a piece of copper-clad
> for a ground plane. Just put down the two caps and the shunt resistor
> "tombstone" style, one end soldered to the ground plane and the other
> up in the air, separated by enough distance to put the series coil and
> resistor between them. You can keep the parasitic L and C very low
> indeed this way. You can also use tiny squares of copper-clad glued
> down to the ground plane as tie points.
>
> It's also possible to mechanically make a simple circuit like this on
> copper-clad using surface mount parts, by scribing lines with
> something like an X-Acto knife and removing strips of copper. In this
> case, I could see scribing four lines across the board, separated by
> about 1/16 inch, and removing two copper strips, one from between the
> first and second scribe, and one from between the thrid and fourth
> scribe. That leaves a trace about 1/16 inch wide. Cut gaps in the
> trace, about 1/16 inch long, where you want to solder down series
> components. Solder shunt components across from the trace to the
> copper ground plane. Bridge across the trace with a copper strap to
> connect the two gound plane sides, with the bridge up in the air over
> the trace. Nice to have a ground plane on the opposite side, with
> some holes and wires to connect to the top-side ground planes, but not
> necessary. I'm thinking 0805 parts with the sizes I mentioned...make
> things slightly larger for 1206. You can make the trace be a 50 ohm
> transmission line if you want, by sizing things right.
>

> Cheers,
> Tom

Hi Tom,

Being so new at this, I don't even know what you mean by 'tombstone style', and it sounds like an awful lot of work to be scoring pcboard with an Xacto knife to create transmission line effects.

I talked with a tech rep from radiotronix today. They called me because I ordered a half dozen modules from mouser. He explained that the pi circuit on the TX is so the TX sees 50 ohms, which is pretty critical. I have not done anything with the transmitter modules yet (they are from Velleman because they are thru hole), but I am building a receiver board on pc board using pcbexpress and single sided copper pcboard. It will be the first prototype. Now that I have it working on a breadboard I am going to build one and see how it works. I am planning on using a straight piece of (20ga) wire for the 18nH inductor and using the T network of 2 8pf caps beside it. The tech said this is just a low pass filter, but it seems to make a difference in receiver sensitivity. The noise on the receiver is supposed to be there according to him. It is between 1Khz and 1.5Khz. he said some people use the data slicer pin with a holtek ht12D decoder, which i am doing or you can also use a micro to look for the bit pattern and decode the signal. I am just using the TV (transmission valid) to set off the rest of my circuit which, right now, consists of a latch and an LED.

Joe

## 166. Re: Looking for ant measurement software/hardware

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-06 05:39:46 UTC
From: Andrey <a8421@intergate.bc.ca>
Message-ID: <10m70ubfed68sc9@corp.supernews.com>
Source record: 88761

I used Daedal for Antenna turntable - it was in order of $5k, - turntable and controller, worked good for me.

Daedal came with brochure listing controller commands for serial port; 2-3 letters each. The rest you can write yourself - HPIB code and graphics. You would need HPIB interface for data collecting PC.

Andrey

"Mike" <km6ab@pacbell.net> wrote in message news:LKI8d.7251$nj.5419@newssvr13.news.prodigy.com...
> I am looking for advice in choosing an economical antenna turntable and
> software package for analyzing antenna patterns on small microwave dish
> antennas. I have RF sources, reference horns and HP Spectrum Analyzers
> available as well as HP Vector Network Analyzers. I have seen software
> used in the past that runs an HP Spectrum Analyzer for collecting data.
> The software was geared towards the satellite industry where the antenna
> positioner was run separately from the data collection software, which
> allowed you to enter the speed of the positioner and the spectrum
> analyzer sweep speed was matched to the positioner speed and amount of
> rotation. The software also centered the peak of the beam on the plot
> and allowed you to fiddle with parameters. I am considering using a
> Daedal precision turntable as I only need azimuth cuts up to 180deg, but
> would like to know if there is a specific industry accepted positioner
> that is cheaper. I am also having trouble locating data collection
> software as I described. I found a company that has a software/turntable
> system, but it's a bit overkill at $18k. There must be something that
> will do a satisfactory job at a cheaper price. Any comments?
> TIA,
> Mike

## 167. Re: 18nH Inductor

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-06 07:05:31 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <8SKjJXF7k5YBFAYK@ifwtech.co.uk>
Source record: 88762
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

Joe wrote:
>
>Being so new at this, I don't even know what you mean by 'tombstone
>style', and it sounds like an awful lot of work to be scoring pcboard
>with an Xacto knife to create transmission line effects.
>
You can easily build what you need using single-sided board: a continuous groundplane, components soldered on top, and connections made using sticky-backed copper tape (available at craft stores for stained-glass work).

If you cut strips 0.1in wide, these will be a good approximation to 50-ohm microstrip, for the relatively low frequencies and short lengths that you will need. On the reverse side, use broader the copper tape to link the groundplanes of your extension and the Radiotronix module.

Simply lay the SMD components against each other, and solder them together... but before you do, mark where the connections through to ground will need to be, for the two capacitors in the pi-network and possibly other places. Then drill the board and insert links of thick wire (14AWG) so that the ground connections will have zero length beyond the thickness of the board - but I really do mean ZERO, or else your network will not perform correctly. The ground links must be touching the ends of the capacitor chips before you solder them.

Likewise, use ZERO lead lengths inside the pi-network. Butt the ends of the two Cs and the L chips directly together, and solder. Any "connecting leads" must be restricted to the places that can use 50-ohm microstrip.

This construction method is very quick and simple. The SMD parts are well-enough anchored to the board for all normal conditions of use.

>I talked with a tech rep from radiotronix today. They called me
>because I ordered a half dozen modules from mouser. He explained that
>the pi circuit on the TX is so the TX sees 50 ohms, which is pretty
>critical.

- so remember what I just said about zero lead lengths.

>I have not done anything with the transmitter modules yet (they are
>from Velleman because they are thru hole), but I am building a receiver
>board on pc board using pcbexpress and single sided copper pcboard. It
>will be the first prototype. Now that I have it working on a breadboard
>I am going to build one and see how it works. I am planning on using a

>straight piece of (20ga) wire for the 18nH inductor and using the T
>network of 2 8pf caps beside it. The tech said this is just a low pass
>filter, but it seems to make a difference in receiver sensitivity.

On the face of it, this pi-network has a 1:1 impedance transformation (two equal capacitors) so it shouldn't make any difference. However, there may be stray capacitances and/or inductances in the module that we don't know about. Bottom line is, this network is what the Radiotromix techs have found to work.

Since you don't have the design experience and the test equipment to measure how the whole thing performs, you would be very wise to copy EXACTLY what Radiometrix did, which includes building the whole network using the best possible construction practice.

Also, a straight piece of wire is actually a short length of transmission line: it does not have quite the same electrical properties as an inductor. So use an 18nH chip inductor like Radiometrix said.

This is really part of your "contract" with the module manufacturer. It isn't fair or reasonable to expect their tech support to second-guess what the effects of every individual user's network might be, if they're all slightly different. You might get away with it this time, but some of the worst tech-support problems are caused by people who declare:

"I did exactly what you said..."

[Now follows 20 minutes of intensive cross-examination over the phone]

"... oh, apart from all these things that are different."

[Deleted: strange sounds on the phone line. The tech has the curly cord gripped in both hands. He's puling it out straight, and he has a red glint in his eyes. Be very thankful that you're several hundred miles away...]

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

## 168. Re: 18nH Inductor

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-06 08:28:26 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <WCupNmKqy6YBFAtK@ifwtech.co.uk>
Source record: 88763
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

Ian White, G3SEK wrote:
>You can easily build what you need using single-sided board: a
>continuous groundplane, components soldered on top, and connections
>made using sticky-backed copper tape

Sorry, that wasn't quite clear (not enough coffee yet this morning).

The continuous groundplane is on the underside of the board. All the SMD components are on the bare fibreglass side. The SMD components are held in place by soldering them directly to each other, to the ground links, to the striplines, and to various other fixed points.

No board etching is required, and this technique will is good to frequencies well above 1GHz.

The 0.1in stripline width was for standard 0.064in FR-4. You can obviously refine that calculation if you want, but there's little point for this particular application.

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

## 169. Re: Owner's manual for the discontinued Radio Shack 15-1853 loop

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-06 10:46:51 UTC
From: "Randy A. Hefner" <randy_NO_SPAM_PLEASE_@murs-usa.com>
Message-ID: <2si0etF1ksghkU1@uni-berlin.de>
Source record: 88764
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

http://support.radioshack.com/support_audio/doc62/62069.pdf

"Cez" <usmcemen@hotmail.com> wrote in message
news:81932e5c.0410031415.55e9ce73@posting.google.com...
> Greetings, all--
>
> I just purchased the very last in-store stock of the 15-1853 here in
> the DC area ($10 clearance) -- unfortunately, it was the store's old
> floor display model, which was missing its box, the manual, and the
> wire to run to the external AM and ground connections on the back of
> my new GE SRIII.
>
> Since the 15-1853 has long since been discontinued, the Radio Shack
> website no longer posts the online version of its owner's manual,
> which I'm trying to track down (I need it for schematics and/or tips
> on the optimal cable I'll need to run from the loop to the radio, plus
> it's just my personal habit to always have owner's manuals around
> 'just in case'). I also tried the 'Wayback Machine' at archive.org to
> see if I could access the manual from earlier versions of the Radio
> Shack website, but no dice...
>
> If anyone happens to have a copy of the 15-1853's online owner's
> manual on hand, I'd certainly be most appreciative to receive a copy
> via e-mail.
>
> Many thanks!
>
> - Cez.

## 170. Re: 18nH Inductor

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-06 14:55:12 UTC
From: k7itm@aol.com
Message-ID: <3200347.0410060655.51019b39@posting.google.com>
Source record: 88765
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

"Joe" <nuisancewildlife@nospamearthlink.net> wrote in message
news:<gYI8d.5843$Vm1.1794@newsread3.news.atl.earthlink.net>...
> "Tom Bruhns" <k7itm@aol.com> wrote in message
> news:3200347.0410041033.9a87e75@posting.google.com...
...
> > Easy enough to use SMT components soldered to a piece of copper-clad
> > for a ground plane. Just put down the two caps and the shunt resistor
> > "tombstone" style, ...
Joe: "I don't even know what you mean by 'tombstone style',"

Tombstone style...just solder one end to the copper-clad board, and
the other end sticking up in the air. Looks like a micro-size
tombstone sticking up from the board.

...
> >
> > Cheers,
> > Tom
>
> Hi Tom,
>
> Being so new at this, I don't even know what you mean by 'tombstone style',
> and it sounds like an awful lot of work to be scoring pcboard with an Xacto
> knife to create transmission line effects.

It's really not all that difficult. Just use a ruler to guide the
knife, use a sharp knife, and the strips you want to remove can
usually just be pulled up in one piece (each). Or do it as Ian
suggested, with sticky copper tape.

As Ian wrote, keep lead lengths extremely short, like "zero." He
suggested putting a piece of heavy copper wire through the board where
you want to connect to the ground plane. Another way is to simply
drill a hole through the board and drop an 0805-size surface mount
part into the hole, and solder both ends. A 1/16" hole would work,
but you'd do better to pick a size that just fits the part you want to
use. Not all 0805 parts are quite the same size, but the body lengths
are pretty accurate and work nicely in 1/16" thick board material.
Any of the methods mentioned by Ian and myself will work well, and all
are reasonably easy to implement with a bit of practice and patience.

Cheers,
Tom

## 171. Re: 18nH Inductor

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-06 17:20:57 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <416427a2$1_4@127.0.0.1>
Source record: 88766
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

Tom Bruhns wrote:
> Any of the methods mentioned by Ian and myself will work well, and all
> are reasonably easy to implement with a bit of practice and patience.

One method of "etching" that worked for me was using a reamer
bit on a drill press to cut through the copper and barely into
the PCB material. This has the advantage of leaving a ground
plane in between the active traces. Also great for scouring
and sizing PCBs.
--
73, Cecil, W5DXP

## 172. Re: Radial installation method

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-06 18:04:07 UTC
From: Jimmie <Gfender@carolina.rr.com>
Message-ID: <rsW8d.52196$ci3.2598316@twister.southeast.rr.com>
Source record: 88768

"Mike Coslo" <mcoslo@adelphia.net> wrote in message
news:lrCdne8ikY9A5_3cRVn-uA@adelphia.com...
> I just got done installing radials for a new antenna, and was distressed
> at the amount of time it was taking.
>
> I was looking at some power tools that might speed up the trenching
> process. Power edgers looked promising, but were 90 - 100 dollars for
> electrical models, and more for the gas powered ones.
>
> Finally I hit on something. I bought an inexpensive electric chainsaw.
> I'm sure the neighbors thought I was a lunatic, but trenching for the
> radials took surprisingly little time. So I laid all my radials in one
> afternoon. It would have taken even less time if there had been an extra
> person around to help.
>
> Caveats:
>
> This is of course *dangerous* - don't ever do it!!! Chainsaws are sharp
> and nasty.
>
> It wore out the Chainsaw chain. That really isn't a big deal. I'm just
> going to save it for the next time I need to trench radials.
>
> The chainsaw needs washed and lubed after trenching.
>
> But it was quick. The radials are in, the post for the vertical is in
> and concrete setting as I write.
>
> Just thought I'd share this with the group. I never saw anyone else
> saying they did anything similar, so I either stumbled on something, or
> I'm completely whacked! ;^)
>
> - Mike KB3EIA -
>
I vote WHACKED(LOL)
You were on the right track when you were thinking edger. Rent dont buy,
cost about $20 for a half day. Got my neighbor to go in with me. Edged his
driveway and curb and mine and cut a trench for his low violtage lights.This
all took an extra 30 minutes. He paid the whole $20.

## 173. Re: 18nH Inductor

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-06 18:11:26 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <b8d8m0hlvmbd3ldb3947grrfjpd92qo7o8@4ax.com>
Source record: 88767
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

On Wed, 06 Oct 2004 12:20:57 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:

>Tom Bruhns wrote:
>> Any of the methods mentioned by Ian and myself will work well, and all
>> are reasonably easy to implement with a bit of practice and patience.
>
>One method of "etching" that worked for me was using a reamer
>bit on a drill press to cut through the copper and barely into
>the PCB material. This has the advantage of leaving a ground
>plane in between the active traces. Also great for scouring
>and sizing PCBs.

This is where those Dremmel tools come into their own!

--

"What is now proved was once only imagin'd." - William Blake, 1793.

## 174. Re: 18nH Inductor

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-06 19:51:19 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41644ae0$1_4@127.0.0.1>
Source record: 88769
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

Paul Burridge wrote:
> Cecil Moore <w5dxp@hotmail.com>> wrote:
>>One method of "etching" that worked for me was using a reamer
>>bit on a drill press to cut through the copper and barely into
>>the PCB material. This has the advantage of leaving a ground
>>plane in between the active traces. Also great for scouring
>>and sizing PCBs.
>
> This is where those Dremmel tools come into their own!

As a matter of fact, when I did this stuff at home, I used a
Dremmel tool.

## 175. Re: Coiled coax balun

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-06 20:22:42 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10m8l0k7aotcl5f@corp.supernews.com>
Source record: 88770

The objective is to get a sufficiently high value of impedance. It doesn't matter whether the impedance is inductive, capacitive, or resistive. You'll get the highest impedance at resonance, so that's the best choice for a single band and there's no point in modifying the design to "be sure it is on the inductive side". Typically, the impedance is higher even considerably above resonance than it would be with an inductive choke of fewer turns. With HF air-core coax chokes, the impedance is very high at resonance and on the bands immediately above and below the resonant band -- and adequately high for some or most applications at frequencies above and below that, since the resonance is quite broad.

Roy Lewallen, W7EL

John Smith wrote:
>
> Actually, Tom, my GDO measures about 440 with two tight turns. Add a couple
> of inches for leads and it goes lower. So, I figured I needed something
> slightly higher in resonance to be sure it is on the inductive side of 440.
>
> No?
>
> John
>
>

## 176. Re: 18nH Inductor--Thanks!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-06 20:34:13 UTC
From: Joe <nuisancewildlife@nospamearthlink.net>
Message-ID: <9FY8d.6482$Vm1.5039@newsread3.news.atl.earthlink.net>
Source record: 88671
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

Thanks all for the suggestions, I have a dremel, and this might be a good project for me to learn how to use smt stuff. I will need to get a small lighted magnifier tho, cause my eyes ain't what they used to be, even with my reading glasses.

Joe

## 177. Antenna & Tower package

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-06 20:52:12 UTC
From: Bill Ogden <wogden@attglobal.net>
Message-ID: <0WY8d.10065$rh4.2707861@news4.srv.hcvlny.cv.net>
Source record: 88672

I have an antenna and tower package on e-bay. It is a Universal 40-foot aluminum tilt-over tower (rated at 15 sq ft at 80 mph), including the rotator shelf. The antenna is a Cubex 2-element 5-band quad, with the a new set of wire elements still in the shipping box. Separate feeds are used for each band (20, 17, 15, 12, 10 meters) and an Ameritron 5-way remote coax switch is included. The rotator is a Yaesu G450A. Cables for the coax switch and rotator are included and are about 125 feet long.

Everything is included except the concrete stubs for the tower and a coax feed.

All are in excellent condition. Pick up only. Poughkeepsie, NY area. Anyone is welcome to inspect the set. Everything is on the ground (or in the house).

There are many "watchers" for the auction in e-bay, all waiting for someone else to make an initial bid. I hope the package goes for about $1300. Search for "tower" and "quad".

The quad is a great antenna. I went from 100 to about 275 confirmed in two years of casual operation. I am not quite as young as I was a few years ago and the handling of the quad (which is a large three dimensional structure) on a tower (which I no longer want to climb) is best left to someone a little more agile.

Bill
W2WO

## 178. Re: infos needed for isotron-antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-06 20:52:38 UTC
From: Mike Coslo <mjc5remove@psu.edu>
Message-ID: <41645B16.9070005@psu.edu>
Source record: 88673

Reg Edwards wrote:
> "Ron" wrote > hello all,
>
>>is there anybody who can give me detailt information about the
>>dimensions of a isotron-antenna for the 160m-band? any links or
>>homebrew-descriptions?
>
> ============================
> Ron, my guess is that none of the replies to your question are from people
> who have ever used or have even seen the antenna.

Not used, but I have seen them. Arguably the most attractive antenna out there. i hop

> With plenty of idle time to spare they are just repeating old wives' rumours
> for a little mischievous amusement.

I've read a fairly in depth report on one of the EH antennas. They said it worked. And the feedline radiation seemed to be what made it work. I haven't used a backpacker, but their work looked good enough to give it some credibility.

What do you think about the information that they publish

http://www.rayfield.net/isotron/isohow.htm

Claiming the transmit performance is the same as a half wave dipole, and the noise on receive is 3 db down from a half wave dipole? This would seem to indicate that the Isotron is a *superior* antenna as compared to a dipole. They don't mention anything about radiating feedline. So okay, maybe the feedline doesn't radiate.

Its *hard* to imagine why anyone would use anything else!

> From its construction I estimate its performance to be marginally worse
> than a magloop of the same physical size and operating frequency. And
> magloops don't do too badly, do they?

- Mike KB3EIA -

## 179. Re: infos needed for isotron-antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-06 21:14:45 UTC
From: fractenna@aol.com
Message-ID: <20041006171445.21100.00001639@mb-m07.aol.com>
Source record: 88674

>Reg Edwards wrote:
>> "Ron" wrote > hello all,
>>
>>>is there anybody who can give me detailt information about the
>>>dimensions of a isotron-antenna for the 160m-band? any links or
>>>homebrew-descriptions?
>>
>> ============================
>> Ron, my guess is that none of the replies to your question are from people
>> who have ever used or have even seen the antenna.
>
>Not used, but I have seen them. Arguably the most attractive antenna out
>there. i hop
>
>> With plenty of idle time to spare they are just repeating old wives'
>rumours
>> for a little mischievous amusement.
>
> I've read a fairly in depth report on one of the EH antennas. They said

>it worked. And the feedline radiation seemed to be what made it work. I
>haven't used a backpacker, but their work looked good enough to give it
>some credibility.
>
> What do you think about the information that they publish
>
>http://www.rayfield.net/isotron/isohow.htm
>
>Claiming the transmit performance is the same as a half wave dipole, and
>the noise on receive is 3 db down from a half wave dipole? This would
>seem to indicate that the Isotron is a *superior* antenna as compared to
>a dipole. They don't mention anything about radiating feedline. So okay,
>maybe the feedline doesn't radiate.
>
> Its *hard* to imagine why anyone would use anything else!
>
>
>> From its construction I estimate its performance to be marginally worse
>> than a magloop of the same physical size and operating frequency. And
>> magloops don't do too badly, do they?
>
>
> - Mike KB3EIA -
>

The isotron design is low efficiency, approximately 2-15%, depending on the frequency/model you have. Efficency isn't everything though in real antenna systems:
It approximates a point source in a highly multipathed environment. Therefore there are positions of placement/times where the antenna is in a gain-volume (as opposed to a null-volume) from the multipath. Ergo it will have a measureable dBm approximating a dipole in the far field. This is a transient effect and depends on ground; environment; and height.

However, there are times where an isotron can be placed quite high, whereas the phase center of a dipole cannot (because the dipole is much bigger; bulkier; unsightly.) Then the enhancement over higher ground can give a seeming approximate equality or advantage over the much lower dipole.

In true free space, the isotron is a mediocre/poor antenna, in my opinion. In real environments, it does have a useful niche, especially if you do 30, 40, or 80 M and can get it 50 or more feet up. There are reports of folks who put isotrons on top of apartment buildings and really kick butt. I doubt they win contests, but I'm sure they have a good time!

I have never seen anything deceptive in isotron's ads.

73,
Chip N1IR

## 180. EMC Handbook

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-07 00:10:17 UTC
From: "J. Mc Laughlin" <jcm@power-net.net>
Message-ID: <10m92a8h0ea241e@corp.supernews.com>
Source record: 88675

FYI:
The book that I have spoken about is finally available. Its ISBN is
0849320879.

Here is what the publisher says:
http://www.crcpress.com/shopping_cart/products/product_detail.asp?sku=2087&p
arent_id=&pc=

It is written by my good friend and colleague AB8T. In about 2600 pages he
deals with antenna subjects and a lot more.

73 Mac N8TT

--
J. Mc Laughlin; Michigan U.S.A.
Home: JCM@Power-Net.Net

## 181. cleaning antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-07 02:49:44 UTC
From: pdrunen@aol.com
Message-ID: <20041006224944.28718.00000378@mb-m05.aol.com>
Source record: 88676

Hi Group,

What is the best cleaner to shine up my 2 meter beam?

de KJ4UO

## 182. Re: cleaning antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-07 03:00:15 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <53c9m01ng04u7s8hbr0atslesev0blg0cd@4ax.com>
Source record: 88677

On 07 Oct 2004 02:49:44 GMT, pdrunen@aol.com (PDRUNEN) wrote:
>What is the best cleaner to shine up my 2 meter beam?

Hi OM,

Baking Soda and Vinegar - but why bother, gonna turn it into a heliograph?

73's
Richard Clark, KB7QHC

## 183. Re: cleaning antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-07 03:06:06 UTC
From: Tom Ring <news0000@taring.org>
Message-ID: <4164b29f$0$91003$39cecf19@news.twtelecom.net>
Source record: 88678

PDRUNEN wrote:
> Hi Group,
>
> What is the best cleaner to shine up my 2 meter beam?
>
> de KJ4UO

Assuming it's aluminum, I like Brasso. Or just 3M pads with a good rinse.

A 3M pad was worth about .4 dB on a range for me once at 432Mhz on a
17dB antenna. The antenna had been outside for about 2 years in MN.

tom
K0TAR

## 184. Re: Antenna & Tower package

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-07 04:41:29 UTC
From: RickN7HJ@gmail.com
Message-ID: <4164c7c9.2923781@news.verizon.net>
Source record: 88679

Yes It is prudent to Post to a world wide newsgroup read by people all over in hopes that after using up the local papers, bulletin boards, and club swap shops, you find that 1 single person that can pick up locally only that might accidently read this in RRAA and come buy it.

## 185. High Efficiency Mobile HF Antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-07 04:46:21 UTC
From: Rick Frazier <rickf@rickfrazier.com>
Message-ID: <4164C962.6EE447@rickfrazier.com>
Source record: 88680

Looking for suggestions for a high efficiency mobile antenna for HF.
I'd like to be able to cover 80-10m, and don't mind stopping to change
out sticks to change bands, so long as I don't have to retune each time.

I'll be mounting the base at bumper level off of the left side of my
pickup (offset from hitch mount), and can probably deal with 9 or 10
feet total height from the mount.

I have an Atas-120 currently mounted at the back edge of the roof, with
it's base at roof level, but am not impressed with it's performance and
am looking for something with higher efficiency. The convenience of
automatic tuning with my FT-857 is less of a convenience than I thought
it'd be, especially considering it doesn't seem to have good efficiency.

Any Ideas?

Thanks
--Rick AH7H

## 186. Loop Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-07 05:39:57 UTC
From: theplanters95@aol.comnospam
Message-ID: <20041007013957.07480.00001864@mb-m18.aol.com>
Source record: 88681

It looks like I could place a loop around the eaves of my house and it would, in theory, be resonant around the 40m band. I'm planning on either feeding it with ladder line or use a 4:1 balun with a very short run into the house.

How can I make the antenna also resonant on 75m? I am planning on using it for 75m-10m.

Randy ka4nma

## 187. Re: Loop Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-07 06:07:01 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <mim9m05a0asngnhmgjuj8jnmsi167bjd7s@4ax.com>
Source record: 88682

On 07 Oct 2004 05:39:57 GMT, theplanters95@aol.comnospam
(Theplanters95) wrote:

>It looks like I could place a loop around the eaves of my house and it would,
>in theory, be resonant around the 40m band. I'm planning on either feeding it
>with ladder line or use a 4:1 balun with a very short run into the house.
>
>How can I make the antenna also resonant on 75m? I am planning on using it for
>75m-10m.

Hi Randy,

It would help to have dimensions. Presumably the perimeter is 40
meters, or thereabouts. As you stand very little chance of one
antenna being resonant on all bands, you may as well anticipate tuning
on the majority of them.

As such, it behooves you to avoid dimensions that are problematic
(presenting a hi-Z impedance). The first likely opportunity will be
with 20M. If you carefully choose your transmission line length to
handle this, you may find you've forced the problem into another band.

As such, some flexibility is in order. One such forethought would be
to have a way to open the loop at the point opposite to the feed (or
perhaps kicks in a tuning cap). This says nothing of the matching
problem that has not already been said (be prepared), but it may be a
simple variation that yields new solutions.

73's
Richard Clark, KB7QHC

## 188. Why do WiFi basestations use two antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-07 11:00:52 UTC
From: "Daniel Kelly (AKA Jack)" <d.kellyNOSPAM@NOSPAM.ucl.ac.uk>
Message-ID: <ck37fb$76u$1@uns-a.ucl.ac.uk>
Source record: 88683
Cross-posted to: alt.radio.broadcasting,alt.radio.pirate,alt.radio.uk,alt.video.equipment.broadcast,rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,uk.radio.amateur,uk.tech.broadcast

Hello,

I need to built a simple, cheap antenna system for a 2.GHz audio-video link. At the moment I'm just using thick wire as the antennas on the transmitter and receiver. This system works surprisingly well... except for one little glitch:

While moving the transmitter, I find there are small, highly localised patches of space where the radio link fails completely. These "dead" patches of space are only a few square centimetres in size.

I'm not a radio engineer so I'm not too sure what's going on. If I was forced to make an educated guess then I'd say the problem was caused by interference caused by reflected, out-of-phase signals. For example, it's conceivable that the receiver could be picking up two 'copies' of the transmission from the TX - one 'copy' is the direct signal, the other 'copy' is a signal that has bounced off some surface - these two 'copies' would cancel eachother out when they're 180 degrees out of phase.

So... this brings me to the question I posed in the subject line: why do WiFi basestations use two antennas? For example, my 3Com basestation has two little whip antennas sticking out the back. Are these two antennas used to combat the problem that I am experiencing? If so, how can I implement two antennas on my system?

If not, how else can I combat the problem I am experiencing?

A little more info about my system:
The system is part of a wearable camera with recorder. The camera, transmitter, microphone and a battery are all worn in a hat. The receiver, recorder and battery are worn in a bag. The system doesn't have to transmit very far (only a few meters) but I do need the signal to be stable.

## 189. Re: Why do WiFi basestations use two antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-07 11:21:25 UTC
From: Arthur <arthur@nospam.com>
Message-ID: <opsfhy5zrn7mtvmf@home2.mshome.net>
Source record: 88684
Cross-posted to: alt.radio.broadcasting,alt.radio.pirate,alt.radio.uk,alt.video.equipment.broadcast,rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,uk.radio.amateur,uk.tech.broadcast

On Thu, 7 Oct 2004 12:00:52 +0100, Daniel Kelly (AKA Jack)
<d.kellyNOSPAM@NOSPAM.ucl.ac.uk> wrote:

> I'm not a radio engineer so I'm not too sure what's going on. If I was
> forced to make an educated guess then I'd say the problem was caused by
> interference caused by reflected, out-of-phase signals. For example,
> it's
> conceivable that the receiver could be picking up two 'copies' of the
> transmission from the TX - one 'copy' is the direct signal, the other
> 'copy'
> is a signal that has bounced off some surface - these two 'copies' would
> cancel eachother out when they're 180 degrees out of phase.
>
Yout assumption is absolutely correct

> So... this brings me to the question I posed in the subject line: why do
> WiFi basestations use two antennas? For example, my 3Com basestation has
> two little whip antennas sticking out the back. Are these two antennas
> used
> to combat the problem that I am experiencing? If so, how can I implement
> two antennas on my system?
>
It's a technique called 'space diversity' that is also used in many radio
systems such as radio microphones and cellular radio. Two separate
receive aerials are used, on the principle that they are unlikely to both
be in a null at the same instant. There are various techniques to
implement this which range from simply coupling the two antennas together
to having entirely separate receivers and just selecting the best signal.
In your case it will complicate things considerably I'm afraid.

-Arthur

## 190. Re: Loop Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-07 11:42:24 UTC
From: KC1DI <elbc2@pivot.net>
Message-ID: <416529a8$1_4@127.0.0.1>
Source record: 88685

Theplanters95 wrote:
> It looks like I could place a loop around the eaves of my house and it would,
> in theory, be resonant around the 40m band. I'm planning on either feeding it
> with ladder line or use a 4:1 balun with a very short run into the house.
>
> How can I make the antenna also resonant on 75m? I am planning on using it for
> 75m-10m.
>
> Randy ka4nma

Hi Randy,
The best way would be to open the loop on the opposite side from the
feedpoint when you want to work 80m. I would use a relay of some sort
that could be activated from the shack. Also would go with open wire if
possible.

73 Dave

## 191. Re: Why do WiFi basestations use two antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-07 13:03:57 UTC
From: richardharrison@webtv.net
Message-ID: <27956-41653EBD-197@storefull-3257.bay.webtv.net>
Source record: 88686

Arthur wrote:
"---to implement this (space diversity) which range from simply coupling the two antennas together to having entirely separate receivers and just selscting the best signal."

The latter works. The former doesn`t.

Coupling two antennas together produces a directional array, not space diversity. The only way to produce space diversity is to selsct a signal from a group while rejecting the others. With multiple signals, there is always some combination that can produce complete cancellation.

Best regards, Richard Harrison, KB5WZI

## 192. Re: High Efficiency Mobile HF Antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-07 13:18:11 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <4165403b$1_4@127.0.0.1>
Source record: 88687

Rick Frazier wrote:
> Looking for suggestions for a high efficiency mobile antenna for HF.
> I'd like to be able to cover 80-10m, and don't mind stopping to change
> out sticks to change bands, so long as I don't have to retune each time.
>
> I'll be mounting the base at bumper level off of the left side of my
> pickup (offset from hitch mount), and can probably deal with 9 or 10
> feet total height from the mount.
>
> I have an Atas-120 currently mounted at the back edge of the roof, with
> it's base at roof level, but am not impressed with it's performance and
> am looking for something with higher efficiency. The convenience of
> automatic tuning with my FT-857 is less of a convenience than I thought
> it'd be, especially considering it doesn't seem to have good efficiency.
>
> Any Ideas?

The best 75m mobile antennas at the previous shootouts have been
either bugcatchers with top hats or screwdrivers with top hats.
Such antennas are about 12dB better than a 75m hamstick.
--
73, Cecil, W5DXP

## 193. Re: Loop Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-07 13:20:48 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <416540d7$1_4@127.0.0.1>
Source record: 88688

Theplanters95 wrote:

> It looks like I could place a loop around the eaves of my house and it would,
> in theory, be resonant around the 40m band. I'm planning on either feeding it
> with ladder line or use a 4:1 balun with a very short run into the house.
>
> How can I make the antenna also resonant on 75m? I am planning on using it for
> 75m-10m.

If it is one WL on 40m, it will be 1/2WL on 75m. Install an insulator at the
half-way point. Leave it open for 75m. Jumper across it for the higher bands.
--
73, Cecil, W5DXP

## 194. Re: Coiled coax balun

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-07 13:29:17 UTC
From: richardharrison@webtv.net
Message-ID: <654-416544AD-293@storefull-3255.bay.webtv.net>
Source record: 88689

Roy, W7EL wrote:
"The objective is to get a sufficiently high value of impedance. It doesn`t matter whether the impedance is inductive, capacitive, or resistive."

True, at a particular frequency. But, inductive impedance increases with frequency. Capacitive impedance decreases with frequency.

The parallel resonant circuit may have extreme impedance, but at higher frequencies it may have a very low impedance, especially if the resonant circuit is a high-C circuit.

Best regards, Richard Harrison, KB5WZI

## 195. Re: Why do WiFi basestations use two antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-07 14:30:50 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <5okam0d8i2qh7emsfa6dbdg7oqca17m4cu@4ax.com>
Source record: 88690
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,uk.radio.amateur,uk.tech.broadcast

On Thu, 7 Oct 2004 12:00:52 +0100, "Daniel Kelly \(AKA Jack\)"
<d.kellyNOSPAM@NOSPAM.ucl.ac.uk> wrote:

>A little more info about my system:
>The system is part of a wearable camera with recorder. The camera,
>transmitter, microphone and a battery are all worn in a hat.

A hat?? What kind of a weirdo are you?
--

"What is now proved was once only imagin'd." - William Blake, 1793.

## 196. Re: Why do WiFi basestations use two antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-07 14:37:47 UTC
From: Gordon Hudson <gordon@usenet2.hostroute.co.uk>
Message-ID: <416554bb$0$94919$5a6aecb4@news.aaisp.net.uk>
Source record: 88691
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,uk.radio.amateur,uk.tech.broadcast

"Paul Burridge" <pb@notthisbit.osiris1.co.uk> wrote in message
news:5okam0d8i2qh7emsfa6dbdg7oqca17m4cu@4ax.com...
> On Thu, 7 Oct 2004 12:00:52 +0100, "Daniel Kelly \(AKA Jack\)"
> <d.kellyNOSPAM@NOSPAM.ucl.ac.uk> wrote:
>
>>A little more info about my system:
>>The system is part of a wearable camera with recorder. The camera,
>>transmitter, microphone and a battery are all worn in a hat.
>
> A hat?? What kind of a weirdo are you?

Defintely a suitable candidate for an Amateur Radio licence.
So you think he owns a parka?

## 197. Re: Why do WiFi basestations use two antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-07 14:44:59 UTC
From: "Daniel Kelly (AKA Jack)" <d.kellyNOSPAM@NOSPAM.ucl.ac.uk>
Message-ID: <ck3kji$l2a$1@uns-a.ucl.ac.uk>
Source record: 88692
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,uk.radio.amateur,uk.tech.broadcast

Ha...

No, I don't own a parka!

The hat is for a psychology experiment.

"Gordon Hudson" <gordon@usenet2.hostroute.co.uk> wrote in message
news:416554bb$0$94919$5a6aecb4@news.aaisp.net.uk...
>
> "Paul Burridge" <pb@notthisbit.osiris1.co.uk> wrote in message
> news:5okam0d8i2qh7emsfa6dbdg7oqca17m4cu@4ax.com...
> > On Thu, 7 Oct 2004 12:00:52 +0100, "Daniel Kelly \(AKA Jack\)"
> > <d.kellyNOSPAM@NOSPAM.ucl.ac.uk> wrote:
> >
> >>A little more info about my system:
> >>The system is part of a wearable camera with recorder. The camera,
> >>transmitter, microphone and a battery are all worn in a hat.
> >
> > A hat?? What kind of a weirdo are you?
>
> Defintely a suitable candidate for an Amateur Radio licence.
> So you think he owns a parka?
>
>

## 198. Re: Why do WiFi basestations use two antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-07 15:15:20 UTC
From: Gordon Hudson <gordon@usenet2.hostroute.co.uk>
Message-ID: <41655d88$0$94921$5a6aecb4@news.aaisp.net.uk>
Source record: 88693
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,uk.radio.amateur,uk.tech.broadcast

"Daniel Kelly (AKA Jack)" <d.kellyNOSPAM@NOSPAM.ucl.ac.uk> wrote in message
news:ck3kji$l2a$1@uns-a.ucl.ac.uk...
> Ha...
>
> No, I don't own a parka!
>
> The hat is for a psychology experiment.

Go to an amateur radio rally and you will see what I meant.
Grubby parkas and amaruer rado seem to go together like....

## 199. Re: Why do WiFi basestations use two antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-07 15:25:49 UTC
From: Dave D <dave-d@dave-d.com>
Message-ID: <41655ffb$0$918$cc9e4d1f@news-text.dial.pipex.com>
Source record: 88694
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,uk.radio.amateur,uk.tech.broadcast

"Daniel Kelly (AKA Jack)" <d.kellyNOSPAM@NOSPAM.ucl.ac.uk> wrote in message
news:ck3kji$l2a$1@uns-a.ucl.ac.uk...
> Ha...
>
> No, I don't own a parka!
>
> The hat is for a psychology experiment.
>
>

Is it anything like the one Homer Simpson used for a 'covert' operation
against the Kwiki-Mart?

Dave

## 200. Re: Why do WiFi basestations use two antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-07 15:34:26 UTC
From: "Daniel Kelly (AKA Jack)" <d.kellyNOSPAM@NOSPAM.ucl.ac.uk>
Message-ID: <ck3nga$18ks$1@uns-a.ucl.ac.uk>
Source record: 88695
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,uk.radio.amateur,uk.tech.broadcast

I didn't see that episode.

But I hope not - mine should be covert enough to go un-noticed in everyday
situations (going to the pub, taking the tube etc)

Jack.

"Dave D" <dave-d@dave-d.com> wrote in message
news:41655ffb$0$918$cc9e4d1f@news-text.dial.pipex.com...
>
> "Daniel Kelly (AKA Jack)" <d.kellyNOSPAM@NOSPAM.ucl.ac.uk> wrote in
message
> news:ck3kji$l2a$1@uns-a.ucl.ac.uk...
> > Ha...
> >
> > No, I don't own a parka!
> >
> > The hat is for a psychology experiment.
> >
> >
>
> Is it anything like the one Homer Simpson used for a 'covert' operation
> against the Kwiki-Mart?
>
>
> Dave
>
>

## 201. Re: Why do WiFi basestations use two antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-07 15:51:35 UTC
From: brainz <dontuse@spamtrap.con>
Message-ID: <2sl6n6F1l1og4U1@uni-berlin.de>
Source record: 88696
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,uk.radio.amateur,uk.tech.broadcast

"Daniel Kelly (AKA Jack)" <d.kellyNOSPAM@NOSPAM.ucl.ac.uk> wrote

> I need to built a simple, cheap antenna system for a 2.GHz audio-video
link.
> At the moment I'm just using thick wire as the antennas
and .....
> No, I don't own a parka!
> The hat is for a psychology experiment.

great post and replies ;)
I'd just like to say you'd find a warm welcome in 'uk.radio.amateur' I
would'nt wonder. It'd be a good place to get the ham 'theorists' going
regarding the single / twin antenna question. I've seen these home made 2
Gig antennas before
and as a ham myself, I appreciate that sort of thing.
Kind Regards
brainz

## 202. Re: Loop Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-07 18:17:06 UTC
From: theplanters95@aol.comnospam
Message-ID: <20041007141706.03318.00001791@mb-m17.aol.com>
Source record: 88697

The size of the house is about 25 feet by 40 feet, not including the 2 peaks of the roof line. This gives a resonant frequency of about 7.7 mhz. The addition of the two peaks, hopefully will bring it down to the 40m range. I was thinking of adding a 1/4 wave 75m stub to the antenna.

I am more interested in effeciency and performance than being resonant (yeah, I know that resonant antennas are more efficient...), but I need a good, multiband antenna.

Randy

## 203. Re: Loop Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-07 18:28:33 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <b62bm058vpi1ivsrbv5bl0dsspu8mgi0k3@4ax.com>
Source record: 88698

On 07 Oct 2004 18:17:06 GMT, theplanters95@aol.comnospam
(Theplanters95) wrote:
>(yeah, I know that resonant antennas are more efficient...)

Hi Randy,

Actually, we get many "designs" that are fully resonant and wholly inefficient. I won't offer the exhaustive list. Suffice it to say your antenna will be big enough to reduce some inefficiency inherent in Ohmic losses in the structure, but for the lower bands you will be in the deadly embrace of nearby lossy ground. You may note this in the resonance having a broader curve (lower Q) than theory would provide for the same structure in free space.

73's
Richard Clark, KB7QHC

## 204. Re: Why do WiFi basestations use two antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-07 18:47:06 UTC
From: "Jock." <real_class_a@yahoo.co.uk>
Message-ID: <vn3bm0pl767huvq9aq514lbkph8kiqp50e@4ax.com>
Source record: 88699
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,uk.radio.amateur,uk.tech.broadcast

On Thu, 7 Oct 2004 16:15:20 +0100, "Gordon Hudson" <gordon@usenet2.hostroute.co.uk>
wrote:

>"Daniel Kelly (AKA Jack)" <d.kellyNOSPAM@NOSPAM.ucl.ac.uk> wrote in message
>news:ck3kji$l2a$1@uns-a.ucl.ac.uk...
>> Ha...
>>
>> No, I don't own a parka!
>>
>> The hat is for a psychology experiment.
>
>Go to an amateur radio rally and you will see what I meant.
>Grubby parkas and amaruer rado seem to go together like....

You must be Starr. May I have my ï¿½10 please?

--

Jock.

Even the most scornful of Welshmen can feel a modicum
of sympathy for the English, who must now employ a
cast-off Scandinavian to manage their limp excuse for
a football team.
- John Humphreys, Broadcaster.

## 205. Re: High Efficiency Mobile HF Antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-07 18:53:13 UTC
From: "H. Adam Stevens, NQ5H" <NQ5H@ARRL.net>
Message-ID: <tgg9d.8629$M05.5353@newsread3.news.pas.earthlink.net>
Source record: 88700

"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:4165403b$1_4@127.0.0.1...
> Rick Frazier wrote:
>> Looking for suggestions for a high efficiency mobile antenna for HF.
>> I'd like to be able to cover 80-10m, and don't mind stopping to change
>> out sticks to change bands, so long as I don't have to retune each time.
>>
>> I'll be mounting the base at bumper level off of the left side of my
>> pickup (offset from hitch mount), and can probably deal with 9 or 10
>> feet total height from the mount.
>>
>> I have an Atas-120 currently mounted at the back edge of the roof, with
>> it's base at roof level, but am not impressed with it's performance and
>> am looking for something with higher efficiency. The convenience of
>> automatic tuning with my FT-857 is less of a convenience than I thought
>> it'd be, especially considering it doesn't seem to have good efficiency.
>>
>> Any Ideas?
>
> The best 75m mobile antennas at the previous shootouts have been
> either bugcatchers with top hats or screwdrivers with top hats.
> Such antennas are about 12dB better than a 75m hamstick.
> --
> 73, Cecil, W5DXP
Rick
I use a Tarheel screwdriver because the base is 4 feet long.
I operate the antenna at resonance and match the impedance to the
transmission line with a transformer.
This approach, along with a top hat for 80, produces the best field strength
I have been able to measure.
A Hustler base with a bug catcher works well also. For the higher bands the
Hustler resonators are fine.
Continuously loaded antennas like the hamstick work less well but are
broader in bandwidth.
A whip and tuner is the worst.
Cecil is quite correct about the shootouts.
73
H.
NQ5H

## 206. Re: Why do WiFi basestations use two antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-07 19:02:26 UTC
From: fractenna@aol.com
Message-ID: <20041007150226.24246.00001844@mb-m02.aol.com>
Source record: 88701

>Go to an amateur radio rally and you will see what I meant.
>Grubby parkas and amaruer rado seem to go together like....

Unfortunately, morbid obesity is also common. Not so in the old days.

Having dropped some pounds I can attest to the problem personally(although not quite at that extreme).

Of course, having donuts and chili as the main draws on the event menu doesn't help.... not many healthy alternatives.

What we need is a merger of ham radio and orienteering...

73,
Chip N1IR

## 207. Re: Loop Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-07 20:16:10 UTC
From: Dave <noone@nowhere.com>
Message-ID: <Ouudnf5ldLaLOfjcRVn-hQ@crocker.com>
Source record: 88702

being tucked under the eves of a house will be neither good nor efficient, it will be too close to wiring, piping, metal gutters, drip edge, and who knows what else inside the walls. it will also pick up noise from everything in the house on receive, and likely get into any poorly shielded electronic device in the house.

that being said, put up whatever is physically easy to do. leave off the balun and run to a tuner in the shack and be done with it. it will work everywhere your tuner will handle it. if the tuner can't handle a particular band try opening it opposite the feed point or change the length of the feedline to give the tuner a different impedance to match.

"Theplanters95" <theplanters95@aol.comnospam> wrote in message news:20041007141706.03318.00001791@mb-m17.aol.com...
> The size of the house is about 25 feet by 40 feet, not including the 2 peaks of
> the roof line. This gives a resonant frequency of about 7.7 mhz. The addition
> of the two peaks, hopefully will bring it down to the 40m range. I was
> thinking of adding a 1/4 wave 75m stub to the antenna.
>
> I am more interested in effeciency and performance than being resonant (yeah, I
> know that resonant antennas are more efficient...), but I need a good,
> multiband antenna.
>
> Randy

## 208. Re: High Efficiency Mobile HF Antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-07 20:17:17 UTC
From: Dave <noone@nowhere.com>
Message-ID: <Vq-dncKAu8fEOfjcRVn-uA@crocker.com>
Source record: 88703

"high efficiency mobile hf antenna" that must win some kind of award for
the longest oxymoron in radio speak.

"Rick Frazier" <rickf@rickfrazier.com> wrote in message
news:4164C962.6EE447@rickfrazier.com...
> Looking for suggestions for a high efficiency mobile antenna for HF.
> I'd like to be able to cover 80-10m, and don't mind stopping to change
> out sticks to change bands, so long as I don't have to retune each time.
>
> I'll be mounting the base at bumper level off of the left side of my
> pickup (offset from hitch mount), and can probably deal with 9 or 10
> feet total height from the mount.
>
> I have an Atas-120 currently mounted at the back edge of the roof, with
> it's base at roof level, but am not impressed with it's performance and
> am looking for something with higher efficiency. The convenience of
> automatic tuning with my FT-857 is less of a convenience than I thought
> it'd be, especially considering it doesn't seem to have good efficiency.
>
> Any Ideas?
>
> Thanks
> --Rick AH7H
>
>
>

## 209. Re: Help:Best vertical for low bands ? advice

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-07 20:57:50 UTC
From: MRR <paccom2@sbcglobal.net>
Message-ID: <i5i9d.25583$QJ3.7720@newssvr21.news.prodigy.com>
Source record: 88704

Don't forget about the Hy-Gain Hy-Tower. 52 feet tall, self supporting and
you can get a 160 meter add too.

"Mark Keith" <nm5k@wt.net> wrote in message
news:25eb70d7.0409272209.44a8ce9a@posting.google.com...
> fjx1@aol.comnospam (Fjx1) wrote in message
> news:<20040927193118.03318.00001286@mb-m17.aol.com>...
>> Of the factory made verticals for 40 and 80 ( I know none are great)
>> which is
>> best/ Hustler, cushcraft, hy gain, mfj, gap, butternut? If it put a
>> signal out
>> on 160 that would be a bonus. Can't run sloper here so need one of these
>> ground
>> mounted wtith radials. Tks.
>
> Of the ones I know about, I think the butternut HF2V is the best. And
> they do make an add on kit for 160. The HF2V is a 40/80 vertical , and
> is a full 1/4 wave on 40m. I think they also make a 30m kit if I
> remember right...Also they have a top loading kit for the lower bands.
> But you could do just as well with a 32 ft wire hung from a tree, and
> a tapped coil at the base...For much less $$$$ too....The HF2V will
> smoke the HF9V "the all band version" on the lower bands. MK
>

## 210. Re: Why do WiFi basestations use two antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-07 21:34:44 UTC
From: john graesser <graesser@tca.net>
Message-ID: <10mbde2fs3g8u8b@corp.supernews.com>
Source record: 88705
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,uk.radio.amateur,uk.tech.broadcast

"Gordon Hudson" <gordon@usenet2.hostroute.co.uk> wrote in message
news:41655d88$0$94921$5a6aecb4@news.aaisp.net.uk...
>
> "Daniel Kelly (AKA Jack)" <d.kellyNOSPAM@NOSPAM.ucl.ac.uk> wrote in
message
> news:ck3kji$l2a$1@uns-a.ucl.ac.uk...
> > Ha...
> >
> > No, I don't own a parka!
> >
> > The hat is for a psychology experiment.
>
> Go to an amateur radio rally and you will see what I meant.
> Grubby parkas and amaruer rado seem to go together like....

Sorry but down here in Texas no hams wear parkas. Down here everyone wears a
baseball cap.
thanks, John.
KC5DWD

## 211. Re: High Efficiency Mobile HF Antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-07 22:26:14 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <4165c0ac$1_4@127.0.0.1>
Source record: 88706

H. Adam Stevens, NQ5H wrote:
> I use a Tarheel screwdriver because the base is 4 feet long.

I use a High Sierra screwdriver with an RV extension because
the base is 6 feet long. :-)
--
73, Cecil, W5DXP

## 212. Re: High Efficiency Mobile HF Antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-07 22:28:11 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <4165c122$1_4@127.0.0.1>
Source record: 88707

Dave wrote:
> "high efficiency mobile hf antenna" that must win some kind of award for
> the longest oxymoron in radio speak.

Heh, heh, how about "relatively high efficiency"?

## 213. Re: Loop Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-07 22:47:01 UTC
From: theplanters95@aol.comnospam
Message-ID: <20041007184701.21321.00001555@mb-m15.aol.com>
Source record: 88708

Richard,

On 75m and 40m, I am interested in NVIS. For 20m and above, DX.

The soil is sand - high desert sand. I am also on a hile. On the side with the feedpoint, we have a small walking space about 20ft from the antenna. After the walk space, a drop off occurrs of about 40 feet to the next street. The next side will have one of the eaves and be 15' high then go up the eaves to about 25' or 30' from the ground, then back down to 15'. The front will be about 15 feet high. The next side will be like the first one with eaves, and then back to the backside of the house. I am guessing on the heights.

I am wondering about the 450 ohm feedline. It would pass near (less than a foot) my pc on the way to the rig and tuner. Would it cause RFI?

I also have an offer of 4 5ft mast. Would it help to use the mast to push the antenna up a litte more?

On the frount of the house, I am planning on running the wire under a pvc rain gutter. We have the power feedline coming in from the pole to the service at the front.

Randy

## 214. Re: Loop Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-07 23:25:17 UTC
From: Aaron <noemail@noemail.com>
Message-ID: <achbm0llp0uplomm4tf84btohu9p9vhpim@4ax.com>
Source record: 88709

theplanters95@aol.comnospam (Theplanters95) wrote:
>It looks like I could place a loop around the eaves of my house and it would,
>in theory, be resonant around the 40m band.

I have such an antenna. It varies in height from 8' to 20' (at the roof peaks).
It is in an 'L' pattern (as is the house exterior). It is slightly more than
200' long and most is #22 wire (in the hidden areas), with a short run of #30
across the front porch area. My MFJ analyzer says it's resonant below the 80M
band.

>I'm planning on either feeding it with ladder line with a very short run into the house.

I feed it with about a 20' length of ladder line.

>or use a 4:1 balun

I originally tried feeding it direct using an unbalanced manual tuner but this
required manual tuning on all bands (a pain), and produced some RF in the shack.
(Not much, but enough to get into my cordless earphones and be annoying.) Using
a 4:1 balun not only solved the RF problem, but also made my TS870's auto tuner
happy on all bands except 80M.

>How can I make the antenna also resonant on 75m?

I don't think you need to. Just hook up a tuner and play around. (BTW I got the
same signal reports with and without using the 4:1 balun, so if it doesn't solve
any problems for you as it did me, leave it out...)

>I am planning on using it for 75m-10m.

I've made contacts on 80M thru 17M (so far) using this antenna, and get mostly
average reports, nothing spectacular, but nothing bad either...and I am on the
air. I have 2 Hamstick dipoles in the garage attic (about 9' up) for comparison.
The loop always beats the 40M Hamstick, usually by 2 S-units or more. The 20M
Hamstick beats the loop most of the time, but usually not by much. Apparently
the loop becomes less effective the higher it goes.

Perhaps with some experimentation I could improve things. However I am satisfied
and will leave it alone. I want 'double stealth', that is not only can neighbors
not see the antenna, but also that they don't even know that I'm a ham. I think
that will save me a lot of grief with this low close antenna...don't you... ;)

## 215. Re: Loop Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-07 23:25:42 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <4ribm09d57m8a489hpep25i79kv88h53et@4ax.com>
Source record: 88710

On 07 Oct 2004 22:47:01 GMT, theplanters95@aol.comnospam
(Theplanters95) wrote:

>Richard,
>
>On 75m and 40m, I am interested in NVIS. For 20m and above, DX.
>
>The soil is sand - high desert sand. I am also on a hile. On the side with the
>feedpoint, we have a small walking space about 20ft from the antenna. After
>the walk space, a drop off occurrs of about 40 feet to the next street. The
>next side will have one of the eaves and be 15' high then go up the eaves to
>about 25' or 30' from the ground, then back down to 15'. The front will be
>about 15 feet high. The next side will be like the first one with eaves, and
>then back to the backside of the house. I am guessing on the heights.

Hi Randy,

All things considered above tends in your favor - a sort of solution
that when life offers lemons, make lemonade.

>I am wondering about the 450 ohm feedline. It would pass near (less than a
>foot) my pc on the way to the rig and tuner. Would it cause RFI?

Depends mostly on balance and thus Common Mode issues. Unbalance
arrives by virtue of lack of symmetry somewhere in the system. The
close proximity of the antenna to various structures tends to increase
the likelihood. Anticipate RFI such that you can add a BalUn (if it
makes sense) and cable. The only virtue of 450 Ohm line is in low
loss, but you won't have a long enough run for this to really matter
much.

>I also have an offer of 4 5ft mast. Would it help to use the mast to push the
>antenna up a litte more?

A 45 foot "mast?" Are you prepared for all the guying? If so, you
could as easily build a top loaded vertical. Don't reduce your
options and walk away from the house-wrapped loop though.

>On the frount of the house, I am planning on running the wire under a pvc rain
>gutter. We have the power feedline coming in from the pole to the service at
>the front.

Well, this speaks to issues of symmetry and balance. This could be
opportunity in disguise (more lemonade) where you put the open into
the loop.

Really, all the compromises you could make (aside from laying it on the ground) will have negligible effect on performance. Putting it up higher follows the maxim "more wire - higher" to advantage.

73's
Richard Clark, KB7QHC

## 216. Re: High Efficiency Mobile HF Antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-07 23:37:43 UTC
From: k3bu@aol.comNoUsama
Message-ID: <20041007193743.16217.00000385@mb-m01.aol.com>
Source record: 88711

>"high efficiency mobile hf antenna" that must win some kind of award for
>the longest oxymoron in radio speak.

Why?
Among HF mobile antennas there those that have low, medium and high effciency.
It is acategory that is limited by some 13' in height and size of the car. One
that produces most signal would be even highest efficiency than the rest of
them. No?

Yuri, K3BU.us

## 217. Re: High Efficiency Mobile HF Antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-07 23:54:27 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <TGk9d.8092$nj.4206@newssvr13.news.prodigy.com>
Source record: 88712

Cecil Moore wrote:
> Dave wrote:
>
>> "high efficiency mobile hf antenna" that must win some kind of award for
>> the longest oxymoron in radio speak.
>
>
> Heh, heh, how about "relatively high efficiency"?

The low efficiency antenna is 1% efficient. The high
efficiency antenna is 2%. That's double the efficiency.
I wouldn't judge efficiency on the basis of a shootout unless
the results were measured in the far field.
73,
Tom Donaly, KA6RUH

## 218. Re: High Efficiency Mobile HF Antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-08 02:53:24 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <4165ff4b$1_4@127.0.0.1>
Source record: 88713

Tom Donaly wrote:
> The low efficiency antenna is 1% efficient. The high
> efficiency antenna is 2%. That's double the efficiency.
> I wouldn't judge efficiency on the basis of a shootout unless
> the results were measured in the far field.

They were measured in the far field, a good 1/4 mile away.

## 219. Re: High Efficiency Mobile HF Antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-08 03:16:07 UTC
From: Rick Frazier <rickf@rickfrazier.com>
Message-ID: <4166058E.E4982348@rickfrazier.com>
Source record: 88714

OK, so how about a slightly different method of describing what I'm looking
for:

" an antenna with considerably higher efficiency than the ATAS-120 I now have
"

<smile>

--Rick

Dave wrote:

> "high efficiency mobile hf antenna" that must win some kind of award for
> the longest oxymoron in radio speak.
>
> "Rick Frazier" <rickf@rickfrazier.com> wrote in message
> news:4164C962.6EE447@rickfrazier.com...
> > Looking for suggestions for a high efficiency mobile antenna for HF.
> > I'd like to be able to cover 80-10m, and don't mind stopping to change
> > out sticks to change bands, so long as I don't have to retune each time.
> >
> > I'll be mounting the base at bumper level off of the left side of my
> > pickup (offset from hitch mount), and can probably deal with 9 or 10
> > feet total height from the mount.
> >
> > I have an Atas-120 currently mounted at the back edge of the roof, with
> > it's base at roof level, but am not impressed with it's performance and
> > am looking for something with higher efficiency. The convenience of
> > automatic tuning with my FT-857 is less of a convenience than I thought
> > it'd be, especially considering it doesn't seem to have good efficiency.
> >
> > Any Ideas?
> >
> > Thanks
> > --Rick AH7H
> >
> >
> >

## 220. Re: Help:Best vertical for low bands ? advice

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-08 04:07:19 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0410072007.560c3504@posting.google.com>
Source record: 88715

"MRR" <paccom2@sbcglobal.net> wrote in message
news:<i5i9d.25583$QJ3.7720@newssvr21.news.prodigy.com>...
> Don't forget about the Hy-Gain Hy-Tower. 52 feet tall, self supporting and
> you can get a 160 meter add too.

Not sure, but I don't think they make that anymore. There may be some
used ones around, but I'd be careful being it's mainly tower sections.
MK

## 221. Yagi Balun designs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-08 04:13:22 UTC
From: vk4akp@yahoo.com.au
Message-ID: <a1284bc8.0410072013.4eb95f6f@posting.google.com>
Source record: 88716

Hi I have a friend writing a neat yagi design program. I'm trying to find info so he can include a couple of different balun design calculators.

One is the design for having the coax internal to the driven element, much like commercial designs.

The other is where flat material is used and the driven points of teh folded dipole meat in a `Z' style patern.

Both these designs offer good matching and ease of construction compared witht eh triditional external coax designs that also require more weatherproofing etc.

Can anyone help with info or links or formuila's on how to work out these types of baluns?

(Please email me direct as I'm not a regular visitor of this forumn).

Thanks,
Ken. VK4AKP.
Email: VK4AKP@yahoo.com.au
.-.-.

## 222. Re: Why do WiFi basestations use two antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-08 05:53:55 UTC
From: m <m@tek.com>
Message-ID: <41662b7a$0$74189$39cecf19@news.twtelecom.net>
Source record: 88717
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew

I agree also that the second antenna is for diversity but none of the
manufactures can answer why it is needed if spread spectrum is suppose to be
so innately fade resistant, even though the spread spectrum Wifi is using
now with CCK isn't really truly random anymore.

Russ N7QR
russm at ieee dot org

"Arthur" <arthur@nospam.com> wrote in message
news:opsfhy5zrn7mtvmf@home2.mshome.net...
> On Thu, 7 Oct 2004 12:00:52 +0100, Daniel Kelly (AKA Jack)
> <d.kellyNOSPAM@NOSPAM.ucl.ac.uk> wrote:
>
> > I'm not a radio engineer so I'm not too sure what's going on. If I was
> > forced to make an educated guess then I'd say the problem was caused by
> > interference caused by reflected, out-of-phase signals. For example,
> > it's
> > conceivable that the receiver could be picking up two 'copies' of the
> > transmission from the TX - one 'copy' is the direct signal, the other
> > 'copy'
> > is a signal that has bounced off some surface - these two 'copies' would
> > cancel eachother out when they're 180 degrees out of phase.
> >
> Yout assumption is absolutely correct
>
>
> > So... this brings me to the question I posed in the subject line: why do
> > WiFi basestations use two antennas? For example, my 3Com basestation
has
> > two little whip antennas sticking out the back. Are these two antennas
> > used
> > to combat the problem that I am experiencing? If so, how can I
implement
> > two antennas on my system?
> >
> It's a technique called 'space diversity' that is also used in many radio
> systems such as radio microphones and cellular radio. Two separate
> receive aerials are used, on the principle that they are unlikely to both
> be in a null at the same instant. There are various techniques to
> implement this which range from simply coupling the two antennas together
> to having entirely separate receivers and just selecting the best signal.
> In your case it will complicate things considerably I'm afraid.
>
> -Arthur

## 223. Re: Loop Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-08 06:00:32 UTC
From: theplanters95@aol.comnospam
Message-ID: <20041008020032.08561.00000109@mb-m22.aol.com>
Source record: 88718

Correction! That's 4 masts of f foot length.

Randy

## 224. Re: Why do WiFi basestations use two antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-08 07:57:51 UTC
From: Paul Keinanen <keinanen@sci.fi>
Message-ID: <dpecm0lmvgnelubpgvm3v36icrub6pnhbt@4ax.com>
Source record: 88719
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew

On Thu, 7 Oct 2004 22:53:55 -0700, "m" <m@tek.com> wrote:

>I agree also that the second antenna is for diversity but none of the
>manufactures can answer why it is needed if spread spectrum is suppose to be
>so innately fade resistant, even though the spread spectrum Wifi is using
>now with CCK isn't really truly random anymore.

With very short direct and reflected paths typical in indoor
installations, you are not going to have multiple nulls within the
spread frequency range. In order for a spread spectrum system to work
properly in a multipath environment, there should be several multipath
nulls within the spread range. If there is only one wide dip covering
your spread range, it can take out most of your signal.

If the spread range is from say 2400 to 2430 MHz, the corresponding
wavelengths would be 125 - 123.5 mm so the spread in wavelengths is
1.5 mm so you would need at least a path difference 40 wavelengths or
5 m to get a phase difference of 180 degrees that would cancel the
signal at one end of the spread range but add up in the other end.

With a larger frequency spread or larger path distance between the
direct and reflected signal, the phase difference would be several
times 360 degrees and there would be multiple nulls (at 180, 540 etc
degrees) and multiple peaks, within the spread range, which the spread
spectrum modulation could easily tolerate.

Paul OH3LWR

## 225. Re: Help:Best vertical for low bands ? advice

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-08 09:59:18 UTC
From: K4SQR@juno.com
Message-ID: <7c8be5b4.0410080159.36181ab9@posting.google.com>
Source record: 88720

The Hy-Gain 18HT Hy-Tower is best all around non compromise vertical.
Hy-Gain has resumed mfg. in MS and several have phased 4 of them via
Comtek's ACB-80.
(http://www.comteksystems.com) Covers 10-15-20-40-80 meters.
New list is $749. with slightly less from dealers. A 160 kit is
optional.
MFJ-1792 is a 40 & 80 vertical; full 1/4w on 40 with a Teflon loading
coil and spokes at the top for 80. About $140. So one extreme to the
other on price if bought new.
Both need radials, as do all 1/4w series fed verticals, for best low
angle takeoff performance.
GL, Jim

fjx1@aol.comnospam (Fjx1) wrote in message
news:<20040927193118.03318.00001286@mb-m17.aol.com>...
> Of the factory made verticals for 40 and 80 ( I know none are great) which is
> best/ Hustler, cushcraft, hy gain, mfj, gap, butternut? If it put a signal out
> on 160 that would be a bonus. Can't run sloper here so need one of these ground
> mounted wtith radials. Tks.

## 226. Re: High Efficiency Mobile HF Antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-08 10:36:12 UTC
From: "H. Adam Stevens, NQ5H" <NQ5H@ARRL.net>
Message-ID: <w4u9d.6411$UP1.103@newsread1.news.pas.earthlink.net>
Source record: 88621

Well, then, Cecil and I have described a couple that generally out perform
other approaches.
Big screwdrivers.
73
H.
NQ5H

"Rick Frazier" <rickf@rickfrazier.com> wrote in message
news:4166058E.E4982348@rickfrazier.com...
> OK, so how about a slightly different method of describing what I'm
> looking
> for:
>
> " an antenna with considerably higher efficiency than the ATAS-120 I now
> have
> "
>
> <smile>
>
> --Rick
>
> Dave wrote:
>
>> "high efficiency mobile hf antenna" that must win some kind of award for
>> the longest oxymoron in radio speak.
>>
>> "Rick Frazier" <rickf@rickfrazier.com> wrote in message
>> news:4164C962.6EE447@rickfrazier.com...
>> > Looking for suggestions for a high efficiency mobile antenna for HF.
>> > I'd like to be able to cover 80-10m, and don't mind stopping to change
>> > out sticks to change bands, so long as I don't have to retune each
>> > time.
>> >
>> > I'll be mounting the base at bumper level off of the left side of my
>> > pickup (offset from hitch mount), and can probably deal with 9 or 10
>> > feet total height from the mount.
>> >
>> > I have an Atas-120 currently mounted at the back edge of the roof,
>> > with
>> > it's base at roof level, but am not impressed with it's performance and
>> > am looking for something with higher efficiency. The convenience of
>> > automatic tuning with my FT-857 is less of a convenience than I thought
>> > it'd be, especially considering it doesn't seem to have good
>> > efficiency.

>> >
>> > Any Ideas?
>> >
>> > Thanks
>> > --Rick AH7H
>> >
>> >
>> >
>

## 227. Re: cleaning antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-08 11:32:41 UTC
From: Dennis Kaylor <k4oxg@tampabay.rr.com>
Message-ID: <tVu9d.6$zY6.4@tornado.tampabay.rr.com>
Source record: 88622

i suggest using WD-40 and a scotchbright pad
just spray the element down with WD-40 then wipe with Scotchbright pad
till clean then wipe off with paper tower
works well and low on the elbow grease scale as well

PDRUNEN wrote:
> Hi Group,
>
> What is the best cleaner to shine up my 2 meter beam?
>
> de KJ4UO

## 228. Re: Why do WiFi basestations use two antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-08 12:55:41 UTC
From: WB4JNX <ndlnews@comcast.net>
Message-ID: <h6GdnQAMR_jTE_vcRVn-rQ@comcast.com>
Source record: 88623
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,uk.radio.amateur,uk.tech.broadcast

"Gordon Hudson" <gordon@usenet2.hostroute.co.uk> wrote in message
news:41655d88$0$94921$5a6aecb4@news.aaisp.net.uk...
> Go to an amateur radio rally and you will see what I meant.
> Grubby parkas and amaruer rado seem to go together like....

Don't forget those weird fabric blue jeans that are susposed to be blue
jeans but they look like polyester painted to look like blue jeans.
Usually worn with the greasy parkas.

## 229. Re: Loop Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-08 16:08:19 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <bmedm090c49arshvp294pf9237j2erkv01@4ax.com>
Source record: 88624

On 08 Oct 2004 06:00:32 GMT, theplanters95@aol.comnospam
(Theplanters95) wrote:
>Correction! That's 4 masts of f foot length.

Oh! Well, then - nevermind ;-)

## 230. Re: cleaning antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-08 16:38:20 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <R-idnfXL45bwX_vcRVn-sQ@comcast.com>
Source record: 88625

"PDRUNEN" <pdrunen@aol.com> wrote in message
news:20041006224944.28718.00000378@mb-m05.aol.com...
> Hi Group,
>
> What is the best cleaner to shine up my 2 meter beam?
>
> de KJ4UO

You might try Noxon liquid (available in grocery stores) and a rag. Probably easier to use than any kind of pad. I would also dismantle the driven element, and clean off with steel wool any portion that gets clamped/bolted together.

Tam/WB2TT

## 231. Re: cleaning antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-08 16:45:59 UTC
From: Keyboard In The Wilderness <Key@Kennel.net>
Message-ID: <cvz9d.1826$hj.1618@fed1read07>
Source record: 88626

Advice from several gurus as garnered from the news groups over time.

For cleaning aluminum tubing, an antenna guru recommends the use of #0 steel wool, along with dishwashing detergent. Another guru prefers Scotch Bright. First wet the aluminum tubing with water and wet the steel wool. Add a small amount of dishwashing detergent to the steel wool and then scrub the aluminum. Rinse out the steel wool periodically with water. Then add more dishwashing detergent to the steel wool and clean again. Rinse off the aluminum tubing periodically. After cleaning a piece of aluminum tubing, rinse it thoroughly with clean water and then dry it off with a clean rag.

When assembling an antenna, apply a very thin film of Penetrox-A anti-oxidant to all of the aluminum-to-aluminum connections. Unless you totally disassemble and clean the traps, never attempt to clean the outer aluminum shells of antenna traps as water and steel wool fragments can enter the traps causing shorts and excessive trap moisture content. When assembling any aluminum antenna, put a thin layer of based-based anti-seize compound on all aluminum to aluminum joints.

These are Penetrox-A from the Burndy Corporation or another is Noalox. Never varnish any antenna - the varnish penetrates into the joints and causes continuity problems. Painting antennas for stealth can be done. Disassemble the antenna, apply paint, then scrape away any paint where the aluminum makes an electrical connection. When restoring an old antenna, consider replacing all the hardware (nuts & bolts) with stainless steel.

--
The Anon Keyboard
I doubt, therefore I might be

"Tam/WB2TT" <t-tammaru@c0mca$t.net> wrote in message
news:R-idnfXL45bwX_vcRVn-sQ@comcast.com...
>
> "PDRUNEN" <pdrunen@aol.com> wrote in message
> news:20041006224944.28718.00000378@mb-m05.aol.com...
> > Hi Group,
> >
> > What is the best cleaner to shine up my 2 meter beam?
> >
> > de KJ4UO
>
> You might try Noxon liquid (available in grocery stores) and a rag.
Probably
> easier to use than any kind of pad. I would also dismantle the driven
> element, and clean off with steel wool any portion that gets
clamped/bolted

> together.
>
> Tam/WB2TT
>
>

## 232. Re: cleaning antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-08 17:04:18 UTC
From: Jimmie <Gfender@carolina.rr.com>
Message-ID: <mMz9d.19109$zA3.3255372@twister.southeast.rr.com>
Source record: 88627

I cleaned up an old beam I had laying in the junk heap out back of my barn. The thing had been there a good 10 years. I had just clean my air conditioner condenser coils and had some cleaner left over so I gave it a spray and hosed it off about ten minutes later. This got most of the gunk off. A little work with a scotch brite pad made it pretty.

"Keyboard In The Wilderness" <Key@Kennel.net> wrote in message news:cvz9d.1826$hj.1618@fed1read07...
> Advice from several gurus as garnered from the news groups over time.
>
> For cleaning aluminum tubing, an antenna guru recommends the use of #0 steel
> wool, along with dishwashing detergent. Another guru prefers Scotch Bright.
> First wet the aluminum tubing with water and wet the steel wool. Add a small
> amount of dishwashing detergent to the steel wool and then scrub the
> aluminum. Rinse out the steel wool periodically with water. Then add more
> dishwashing detergent to the steel wool and clean again. Rinse off the
> aluminum tubing periodically. After cleaning a piece of aluminum tubing,
> rinse it thoroughly with clean water and then dry it off with a clean rag.
>
>
>
> When assembling an antenna, apply a very thin film of Penetrox-A
> anti-oxidant to all of the aluminum-to-aluminum connections. Unless you
> totally disassemble and clean the traps, never attempt to clean the outer
> aluminum shells of antenna traps as water and steel wool fragments can enter
> the traps causing shorts and excessive trap moisture content. When
> assembling any aluminum antenna, put a thin layer of based-based anti-seize
> compound on all aluminum to aluminum joints.
>
>
>
> These are Penetrox-A from the Burndy Corporation or another is Noalox. Never
> varnish any antenna - the varnish penetrates into the joints and causes
> continuity problems. Painting antennas for stealth can be done. Disassemble
> the antenna, apply paint, then scrape away any paint where the aluminum
> makes an electrical connection. When restoring an old antenna, consider
> replacing all the hardware (nuts & bolts) with stainless steel.

> 
> 
> --
> The Anon Keyboard
> I doubt, therefore I might be
> 
> 
> 
> "Tam/WB2TT" <t-tammaru@c0mca$t.net> wrote in message
> news:R-idnfXL45bwX_vcRVn-sQ@comcast.com...
> >
> > "PDRUNEN" <pdrunen@aol.com> wrote in message
> > news:20041006224944.28718.00000378@mb-m05.aol.com...
> > > Hi Group,
> > >
> > > What is the best cleaner to shine up my 2 meter beam?
> > >
> > > de KJ4UO
> >
> > You might try Noxon liquid (available in grocery stores) and a rag.
> Probably
> > easier to use than any kind of pad. I would also dismantle the driven
> > element, and clean off with steel wool any portion that gets
> clamped/bolted
> > together.
> >
> > Tam/WB2TT
> >
> >
> 
> 

## 233. OT: "antenna" bulge under Bush's jacket

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-08 17:59:54 UTC
From: Bob Miller <rmiller47@satx.rr.com>
Message-ID: <k7ldm0djjm95mnd4mm0ct1h90ss9gmh9di@4ax.com>
Source record: 88628

See http://www.bradmesser.com/

Could that bulge be a radio receiver/antenna of some sort?

Bob
k5qwg

## 234. Re: cleaning antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-08 18:11:59 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10mdm3j5o02733a@corp.supernews.com>
Source record: 88629

Keyboard In The Wilderness wrote:

> Advice from several gurus as garnered from the news groups over time.
>
> For cleaning aluminum tubing, an antenna guru recommends the use of #0 steel
> wool, along with dishwashing detergent. . .

I've read that using steel wool will result in tiny pieces of the steel
being left embedded in the aluminum, resulting in long term pitting and
corrosion. Is that an old wives' tale, then?

Roy Lewallen, W7EL

## 235. Re: cleaning antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-08 18:26:48 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <Zs2dnWKvtuxFRvvcRVn-rA@comcast.com>
Source record: 88630

"Keyboard In The Wilderness" <Key@Kennel.net> wrote in message
news:cvz9d.1826$hj.1618@fed1read07...
> Advice from several gurus as garnered from the news groups over time.
>
> For cleaning aluminum tubing, an antenna guru recommends the use of #0
> steel
> wool, along with dishwashing detergent. Another guru prefers Scotch
> Bright.
> First wet the aluminum tubing with water and wet the steel wool. Add a
> small
> amount of dishwashing detergent to the steel wool and then scrub the
> aluminum. Rinse out the steel wool periodically with water. Then add more
> dishwashing detergent to the steel wool and clean again. Rinse off the
> aluminum tubing periodically. After cleaning a piece of aluminum tubing,
> rinse it thoroughly with clean water and then dry it off with a clean rag.
>
Yeah, that's probably a must. Any kind of cleaner left on the Al will most
likely be corresive in the long run; at least until the first good rain.

Tam/WB2TT

## 236. Re: 18nH Inductor--Thanks!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-08 18:33:12 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <l7GdnQVOu8_FQPvcRVn-hg@comcast.com>
Source record: 88631
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

"Joe" <nuisancewildlife@nospamearthlink.net> wrote in message
news:9FY8d.6482$Vm1.5039@newsread3.news.atl.earthlink.net...
> Thanks all for the suggestions, I have a dremel, and this might be a good
> project for me to learn how to use smt stuff. I will need to get a small
> lighted magnifier tho, cause my eyes ain't what they used to be, even with
> my reading glasses.
>
> Joe
>
Joe,
If you are like me, you will want to use 805 or larger SM. 402 type drive me
batty, and if you ever drop one on the floor, it is gone forever.

Tam/WB2TT

## 237. Re: Loop Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-08 21:48:22 UTC
From: theplanters95@aol.comnospam
Message-ID: <20041008174822.08241.00001602@mb-m10.aol.com>
Source record: 88632

I cannot type. I have an offer of 4 pipes of 5ft length. Would placing them on the eaves help?

Randy

## 238. Re: Loop Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-08 22:14:22 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <263em09rm0mth3cnhst7jl2tm477io24qq@4ax.com>
Source record: 88633

On 08 Oct 2004 21:48:22 GMT, theplanters95@aol.comnospam
(Theplanters95) wrote:

>I cannot type. I have an offer of 4 pipes of 5ft length. Would placing them
>on the eaves help?

Hi Randy,

You mean one at each corner or the house for 5 foot elevation? Or do
you mean all four combined for a one time gain of 20 foot elevation?

I have an Army field grade mast kit with 8 five foot heavy duty pipes
that does a good job (the kit also includes stakes, cording and plates
for 3 tiers of guys, and a 2.5 pound sledge). Works fine, but if I
wanted 20 feet, I would go buy two 10 footers. You have to be careful
these days about your pipe sources. Some in the CIA would claim they
could be used in Uranium Centrifuges and a cruise missile may be
targeting you soon.

If we fall back on the 4 spread among the corners - nah. Too much
work for wholly no observable gain.

73's
Richard Clark, KB7QHC

## 239. Re: Loop Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-08 22:14:22 UTC
From: Dave <noone@nowhere.com>
Message-ID: <fYSdnaqhKO7djPrcRVn-tA@crocker.com>
Source record: 88634

only if you want the neighbors to think you have an antenna... or some other weird contraption on the roof!

"Theplanters95" <theplanters95@aol.comnospam> wrote in message news:20041008174822.08241.00001602@mb-m10.aol.com...
> I cannot type. I have an offer of 4 pipes of 5ft length. Would placing them
> on the eaves help?
>
> Randy

## 240. Re: OT: "antenna" bulge under Bush's jacket

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-08 23:34:24 UTC
From: microwaves@blueyonder.co.uk
Message-ID: <4165d261.47757191@news.blueyonder.co.uk>
Source record: 88635

On Fri, 08 Oct 2004 17:59:54 GMT, Bob Miller <rmiller47@satx.rr.com>
wrote:

>See http://www.bradmesser.com/
>
>Could that bulge be a radio receiver/antenna of some sort?
>
>Bob
>k5qw

or a hernia ? ;-)

## 241. Re: "antenna" bulge under Bush's jacket

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-08 23:39:43 UTC
From: Pat Whelton <pwhelton@earthlinkNOSPAM.net>
Message-ID: <3zF9d.7137$UP1.1029@newsread1.news.pas.earthlink.net>
Source record: 88636

"Bob Miller" <rmiller47@satx.rr.com> wrote in message
news:k7ldm0djjm95mnd4mm0ct1h90ss9gmh9di@4ax.com...
> See http://www.bradmesser.com/
>
> Could that bulge be a radio receiver/antenna of some sort?
>
> Bob
> k5qwg
>

Maybe he's just happy to see you.

## 242. Re: OT: "antenna" bulge under Bush's jacket

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-09 00:15:22 UTC
From: Butch <lynyrd@cableone.net>
Message-ID: <10mebd0t2vbaj15@corp.supernews.com>
Source record: 88637

Bullet proof vest showing.

Butch KF5DE

Bob Miller wrote:
> See http://www.bradmesser.com/
>
> Could that bulge be a radio receiver/antenna of some sort?
>
> Bob
> k5qwg
>

## 243. New program TRAP3.exe

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-09 00:31:07 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <ck7bgb$f65$1@titan.btinternet.com>
Source record: 88638

NOW AVAILABLE ** New Program "TRAP3.exe"

This program calculates the performance of an antenna trap. It also assists with selection of trap capacitor value, coil length and diameter, and number of turns. For full design of a trapped dipole use in conjunction with program TRAPDIP.

An independent signal generator is built into the program. It generates a testing frequency which allows the traps's performance, input impedance versus frequency, to be 'measured'.

One small file, size = 43 kilobytes.

Have you ever wondered what your traps are really doing? Download program from website below in a few seconds and run immediately.
----
.....................................................
Regards from Reg, G4FGQ
For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp
.....................................................

## 244. Re: 18nH Inductor--Thanks!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-09 00:39:42 UTC
From: Joe <nuisancewildlife@nospamearthlink.net>
Message-ID: <irG9d.10827$Vm1.733@newsread3.news.atl.earthlink.net>
Source record: 88639
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

"Tam/WB2TT" <t-tammaru@c0mca$t.net> wrote in message
news:l7GdnQVOu8_FQPvcRVn-hg@comcast.com...
>
> "Joe" <nuisancewildlife@nospamearthlink.net> wrote in message
> news:9FY8d.6482$Vm1.5039@newsread3.news.atl.earthlink.net...
> > Thanks all for the suggestions, I have a dremel, and this might be a
good
> > project for me to learn how to use smt stuff. I will need to get a small
> > lighted magnifier tho, cause my eyes ain't what they used to be, even
with
> > my reading glasses.
> >
> > Joe
> >
> Joe,
> If you are like me, you will want to use 805 or larger SM. 402 type drive
me
> batty, and if you ever drop one on the floor, it is gone forever.
>
> Tam/WB2TT
>
>

Hi Tam,

Actually, the ones that looked easiest to use were the 1210 case size. I ordered some from mouser yesterday. I hope they're big enough for me to see.

I was wondering about a post I read somewhere else a long time ago. Is there such a thing as a paste (that comes in a tube) that can be applied to the terminals of a surface mount device and then when it is stuck to the board, the paste hardens into something like hardened solder? So it is mounted to the board and soldered with this paste?

Joe
KB1KVI

## 245. Re: High Efficiency Mobile HF Antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-09 01:43:06 UTC
From: Craig Buck <k4ia@cox.net>
Message-ID: <1qH9d.1641$Lo6.290@fed1read03>
Source record: 88640

Save your $$. I was in the same spot you are and went for the Tarheel and the W4RT auto tuner box. $500 or so later, I A/B compared my old roof mounted ATAS 100 against my full size Tarheel on the bumper and the ATAS was so close on 20 and above, I could not tell the difference. On 40, the Tarheel was a slight favorite. Of course the ATAS does not run 80.

Theory: mounted up higher the lower efficiency ATAS overcomes its shortfall because it has lower ground losses than the bumper mounted larger antenna. Some modeling I did with G4FGQ's MIDLOAD seemed to confirm that would be the case.

Another way to consider it: Mobile operating is unique in that signals had better be pretty strong to begin with or you won't hear the station over the cab noise, QSB from moving past a truck and RFI from the cars around you. To say the full size screwdriver is two S units better on 40 means nothing because you couldn't understand an S2 signal on the full size either. If the signals are strong enough, an S9 on the full size is just as copiable at S7 on the ATAS and is enough to get the job done.
--
Radio K4ia
Craig "Buck"
Fredericksburg, VA USA
FISTS 6702 cc 788 Diamond 64

"Rick Frazier" <rickf@rickfrazier.com> wrote in message
news:4164C962.6EE447@rickfrazier.com...
> Looking for suggestions for a high efficiency mobile antenna for HF.
> I'd like to be able to cover 80-10m, and don't mind stopping to change
> out sticks to change bands, so long as I don't have to retune each time.
>
> I'll be mounting the base at bumper level off of the left side of my
> pickup (offset from hitch mount), and can probably deal with 9 or 10
> feet total height from the mount.
>
> I have an Atas-120 currently mounted at the back edge of the roof, with
> it's base at roof level, but am not impressed with it's performance and
> am looking for something with higher efficiency. The convenience of
> automatic tuning with my FT-857 is less of a convenience than I thought
> it'd be, especially considering it doesn't seem to have good efficiency.
>
> Any Ideas?
>
> Thanks
> --Rick AH7H
>

>
>

## 246. Re: 18nH Inductor--Thanks!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-09 01:47:34 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10megpq4nfhsc78@corp.supernews.com>
Source record: 88641
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

Joe wrote:
> . . .
> I was wondering about a post I read somewhere else a long time ago. Is there
> such a thing as a paste (that comes in a tube) that can be applied to the
> terminals of a surface mount device and then when it is stuck to the board,
> the paste hardens into something like hardened solder? So it is mounted to
> the board and soldered with this paste?

One-part conductive epoxy fits that description. It's commonly used to mount SMT parts on hybrid circuits. However, the ones I'm familiar with require curing at an elevated temperature (e.g., 150C for an hour). I believe there are also some UV curing conductive epoxies. Conductive epoxy can be used for mounting parts on a PCB, too, but I don't think it's commonly done because it's considerably more expensive than solder. There might be two-part conductive epoxies that cure at room temperature, but I've never used one and am not sure they exist. The one-part epoxies I've used aren't conductive until they're cured -- the tiny conductive (gold or silver) particles in the paste don't contact each other until the curing process causes the epoxy to shrink and pull them together.

Then there's solder paste, nearly universally used for mounting parts on PCBs. This also fits your description and can by applied by hand with a syringe, then melted by a number of means -- hot air, IR, soldering iron. It's actually a slurry of flux and tiny spheres of solder. It's not really sticky, but sort of gummy, so some other means (like superglue) has to be used if the parts need to be kept in place when the board is inverted or severely disturbed before the paste is melted.

Roy Lewallen, W7EL

## 247. Re: cleaning antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-09 02:05:33 UTC
From: CW <"no adddress"@spam>
Message-ID: <g6qdnb9STYvx2vrcRVn-gQ@comcast.com>
Source record: 88642

Try Mother's Mag and Aluminum polish. When I was in basic training, there was a guy that brought a can of Mother's with him. His stuff looked so much better than the rest (everyone else was using Brasso) that they told him he couldn't use it unless he supplied it to everyone. Yes, it's that good.

"Tom Ring" <news0000@taring.org> wrote in message news:4164b29f$0$91003$39cecf19@news.twtelecom.net...
> PDRUNEN wrote:
> > Hi Group,
> >
> > What is the best cleaner to shine up my 2 meter beam?
> >
> > de KJ4UO
>
> Assuming it's aluminum, I like Brasso. Or just 3M pads with a good rinse.
>
> A 3M pad was worth about .4 dB on a range for me once at 432Mhz on a
> 17dB antenna. The antenna had been outside for about 2 years in MN.
>
> tom
> K0TAR

## 248. solid or stranded copper best ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-09 03:11:16 UTC
From: carkenord@juno.com
Message-ID: <4346b55e.0410081911.70664e36@posting.google.com>
Source record: 88643

My old delta loop on 20M SSB finally quit. Actually, it was destroyed in a hailstorm. It was made of 18 gauge solid Copperweld, and stayed up in the Denver smog for many years.

This equilateral antenna was mounted vertically, with apex up, fed in middle of base.

It was a real good antenna, and I'm going to put up a replacement, with same basic parameters.

In terms of strength, longevity, fatigue resistance, and resistance to stretching which would be better, 12 to 16 gauge solid copper, or 12-16 gauge stranded copper?

Insulated or non-insulated?

If I use insulated 12-16 gauge copper, how much should I shorten the overall length, expressed as a percentage, as compared to the bare 18 gauge Copperweld I had up before the storm? I will want this antenna cut for same freq (14.225 Mhz) as the previous one.

Thank you..... Lee Carkenord KA0FPJ

## 249. Re: cleaning antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-09 03:21:31 UTC
From: "aunwin@insightbb.com"
Message-ID: <%OI9d.331893$mD.174063@attbi_s02>
Source record: 88644

No ! It definitely cleans and shines the anternna so objective is achieved.
Regarding possible destructive action , can you point to a study
that shows measurable losses with respect to exposure time ?
I am assuming that you are refering to cases where a sizeable portion of the
aluminum surface is removed and replaced by steel which somehow
prevent skin depth from attaining its original depth. ( not what the normal
operator had in mind)
But if you are refering to corrosion of the embedded steel particles
'tiny bits' that would be a nye impossible loss to measure and thus would
take it's place as "an old wives tale"
( Unless you have a study that proves otherwise
such as a .01" lump of steel embedded in a 1" diameter tube
provides a measureable loss )

Art

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:10mdm3j5o02733a@corp.supernews.com...
> Keyboard In The Wilderness wrote:
>
> > Advice from several gurus as garnered from the news groups over time.
> >
> > For cleaning aluminum tubing, an antenna guru recommends the use of #0
steel
> > wool, along with dishwashing detergent. . .
>
> I've read that using steel wool will result in tiny pieces of the steel
> being left embedded in the aluminum, resulting in long term pitting and
> corrosion. Is that an old wives' tale, then?
>
> Roy Lewallen, W7EL

## 250. Re: OT: "antenna" bulge under Bush's jacket

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-09 03:27:52 UTC
From: Dave VanHorn <dvanhorn@cedar.net>
Message-ID: <7LudnX7gq9gI5vrcRVn-jA@comcast.com>
Source record: 88649

Control module :)

--
KC6ETE Dave's Engineering Page, www.dvanhorn.org
Microcontroller Consultant, specializing in Atmel AVR

## 251. Knots in antenna wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-09 03:30:33 UTC
From: Ken <cprstn54zz@att.net>
Message-ID: <bimem0tpdq77oihbli2ceh3rn6o2rn70of@4ax.com>
Source record: 88645

I have seen commercial wire antennas where the insulated wire is tied
to the center insulator with a clinch knot having three turns and then
the end of the wire (protruding from the knot) is stripped and
connected to the feedline.

Does forcing the RF current though a knot at the feedpoint have a
significant affect on propagation?

Ken KC2JDY

Ken
(to reply via email
remove "zz" from address)

## 252. Re: Knots in antenna wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-09 05:33:42 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <pKK9d.195580$Np2.178964@bignews4.bellsouth.net>
Source record: 88646

"Ken" <cprstn54zz@att.net> wrote in message
news:bimem0tpdq77oihbli2ceh3rn6o2rn70of@4ax.com...
> I have seen commercial wire antennas where the insulated wire is tied
> to the center insulator with a clinch knot having three turns and then
> the end of the wire (protruding from the knot) is stripped and
> connected to the feedline.
>
> Does forcing the RF current though a knot at the feedpoint have a
> significant affect on propagation?
>
> Ken KC2JDY

I would say yes - it would have an effect - but not so much on propogation
as efficiency - I think the knot would act as a loading coil.
I would think it best to strip the insulation so the whole knot is bare
copper.

---
Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.772 / Virus Database: 519 - Release Date: 10/1/2004

## 253. Re: solid or stranded copper best ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-09 05:41:27 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <HRK9d.195662$Np2.184539@bignews4.bellsouth.net>
Source record: 88647

I used 14 ga THHN (stranded, insulated) with black insulation. It worked.
I would think 14 ga copperweld (copper-clad steel) would be ideal, but THHN
was easily available at the local builder supply - and cheaper.
Maybe the small guage wire you used contributed to its demise - 14 ga
version of what you were using would be my first pick.
Stranded wire is more flexible than solid, but that attribute may be moot
once the antenna is in place.

"Lee Carkenord" <carkenord@juno.com> wrote in message
news:4346b55e.0410081911.70664e36@posting.google.com...
> My old delta loop on 20M SSB finally quit. Actually, it was destroyed
> in a hailstorm. It was made of 18 gauge solid Copperweld, and stayed
> up in the Denver smog for many years.
>
> This equilateral antenna was mounted vertically, with apex up, fed in
> middle of base.
>
> It was a real good antenna, and I'm going to put up a replacement,
> with same basic parameters.
>
> In terms of strength, longevity, fatigue resistance, and resistance to
> stretching which would be better, 12 to 16 gauge solid copper, or
> 12-16 gauge stranded copper?
>
> Insulated or non-insulated?
>
> If I use insulated 12-16 gauge copper, how much should I shorten the
> overall length, expressed as a percentage, as compared to the bare 18
> gauge Copperweld I had up before the storm? I will want this antenna
> cut for same freq (14.225 Mhz) as the previous one.
>
> Thank you..... Lee Carkenord KA0FPJ

---
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Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.772 / Virus Database: 519 - Release Date: 10/1/2004

## 254. Re: "antenna" bulge under Bush's jacket

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-09 05:45:42 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <GVK9d.195709$Np2.193057@bignews4.bellsouth.net>
Source record: 88648

EVERY president carries his own G5RV for those times after the debates when
the bands open up to the mideast.

"Bob Miller" <rmiller47@satx.rr.com> wrote in message
news:k7ldm0djjm95mnd4mm0ct1h90ss9gmh9di@4ax.com...
> See http://www.bradmesser.com/
>
> Could that bulge be a radio receiver/antenna of some sort?
>
> Bob
> k5qwg
>

---
Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.772 / Virus Database: 519 - Release Date: 10/1/2004

## 255. Re: Knots in antenna wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-09 05:50:59 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <spuem0hos4ieahcaajepi07gvs8p3qp6gm@4ax.com>
Source record: 88650

On Sat, 09 Oct 2004 03:30:33 GMT, Ken <cprstn54zz@att.net> wrote:

>Does forcing the RF current though a knot at the feedpoint have a
>significant affect on propagation?

Hi Ken,

YES, at wavelengths of 1cM that 1cM knot puts the twists to RF.

NO, at wavelengths of 160M that 1cM knot is invisible.

MAYBE, between those two extremes your answer varies in proportion.

73's
Richard Clark, KB7QHC

## 256. Re: Loop Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-09 06:37:43 UTC
From: theplanters95@aol.comnospam
Message-ID: <20041009023743.03319.00001351@mb-m25.aol.com>
Source record: 88651

It would not look good for a preacher to be hit by a cruise missile. :-) Hmmm, maybe the flaming arrows of spam are from the cia???

Ok, I will scrap the 4 pipes around the house for loop's extra elevation, and use them for elevation for a 2m J-pole.

With the power company feedline coming in at the front (away from feed point. would a "U" shape (that is a loop with a gap around the power line) work. I think that I just realized the answer. It would or could cause an unbalanced situation which could lead to all sorts of problems like RFI, unable to tune, etc....

I am also thinking of running the loop along the backside of the house and then instead of continuing to run along the side of the house, run the wire to an old unused billboard (about 20 or 30 feet high) and then from the billboard back along the front of the house, and then instead of along the side, run it to a tree (the only one on my property) and then back along the side of the house. The feedpoint would be on the backside about 1/4 or 1/3 from the tree side.

An idea, if, I use the 2 of the pipes as additional supports placed at the top of the side eaves , I could run a wire from the tree over the roof to the billboard, sort of an inverted V or a droopy end dipole with a slight bend on one side. And if the pipes are placed just right, then I would not be running a wire under a power feed line, like the loop on the eaves. It would be random length, and feed about 1/3 or so from the tree end, unless I got more ladderline. Total length about 60 or 80 feet at about 20 or 30 foot sloping down to about 10 or 15 feet at the tree. Let's see, a random length dipole in the clear (by a few feet), should out perform a loop under the eaves? Easier matching, antenna in the clear, less RFI, better for NVIS and DX. Maybe a better antenna?

Can an OCF dipole be feed with ladderline?
What is the best way to run ladder line over asphalt shingles?

Randy

## 257. Re: Loop Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-09 07:28:10 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <rt2fm0dctd2djgekun3079si0t27qdq4jl@4ax.com>
Source record: 88652

On 09 Oct 2004 06:37:43 GMT, theplanters95@aol.comnospam
(Theplanters95) wrote:

>With the power company feedline coming in at the front (away from feed point.
>would a "U" shape (that is a loop with a gap around the power line) work. I
>think that I just realized the answer. It would or could cause an unbalanced
>situation which could lead to all sorts of problems like RFI, unable to tune,
>etc....

Hi Randy,

All of this is actually a long shot - very unlikely. If it DID happen
you have a scapegoat, but RF is not that delicate a flower rent by the
hurricane of speculation. In other words, try it to see if you have
a problem. You will spend far less trying compared to the time
worrying about the possibility.

>
>I am also thinking of running the loop along the backside of the house and
>then instead of continuing to run along the side of the house, run the wire to
>an old unused billboard (about 20 or 30 feet high) and then from the billboard
>back along the front of the house, and then instead of along the side, run it
>to a tree (the only one on my property) and then back along the side of the
>house. The feedpoint would be on the backside about 1/4 or 1/3 from the tree
>side.

Now you are cooking with gas. Imagination is kicking into high gear
and invention is working with real possibilities.

>An idea, if, I use the 2 of the pipes as additional supports placed at the top
>of the side eaves , I could run a wire from the tree over the roof to the
>billboard, sort of an inverted V or a droopy end dipole with a slight bend on
>one side. And if the pipes are placed just right, then I would not be running
>a wire under a power feed line, like the loop on the eaves. It would be random
>length, and feed about 1/3 or so from the tree end, unless I got more
>ladderline. Total length about 60 or 80 feet at about 20 or 30 foot sloping
>down to about 10 or 15 feet at the tree. Let's see, a random length dipole in
>the clear (by a few feet), should out perform a loop under the eaves? Easier
>matching, antenna in the clear, less RFI, better for NVIS and DX. Maybe a
>better antenna?

Whoops! Backsliding to that familiar nemesis of "a solution in search
of a problem." You are trying too hard to put those tubes to work -
use the abandoned sign. Dare I say it is a "sign?" The metaphor is
certainly not lost on you is it? ;-)

>Can an OCF dipole be feed with ladderline?

It typically is and it typically is fed with coax too - howabout that for political answer - sorry, watching too many debates. We taped the soap opera when we went out to listen to Mort Sahl here in town. Mort is getting on in age (wish I could have caught his act at the Hungry I in Frisco) but he is as sharp as a tack still... and then we got back for the punch and judy show as a retread. I wanted to throw the remote at those two monkeys. Politics is a sure argument against Darwin (evolution caught in a time warp).

OCF guarantees Common Mode for any feed. It is up to you to force a new balance.

>What is the best way to run ladder line over asphalt shingles?

The asphalt isn't a problem, it's the water and crud that comes with the rain that bridges the wire. Use coax for short runs because you would need standoffs (like they used to use for TV twin line back in the old days) but you are back to loss due to water and crud that comes with the rain that bridges the wire (get the idea?).

Or just simply ignore the loss of the water and crud that bridges the wire (or ignore the loss of coax) and get on with the fact that no one can tell the difference with WHAT you use (come what may, rain OR shine).

One of the supreme ironies is that most folks achieve their greatest improvements with very little work, and then they have to struggle to double that performance gain - and then they have to quadruple that heroic effort to double it again. Ever hear about the problems of Sisyphus?

73's
Richard Clark, KB7QHC

## 258. Re: Xerox TDR ??

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-09 07:31:48 UTC
From: Steve Silverwood <kb6ojs@arrl.net>
Message-ID: <MPG.1bd0eecc8edfa7829896f8@news.individual.net>
Source record: 88653
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics.equipment,comp.dcom.lans.ethernet

In article <tvy8d.2697$q%7.2455@newssvr11.news.prodigy.com>,
kolesnik@sbcglobal.net says...
> I just got a Xerox Digital Time Domain Reflectometer Model 600T80024. It's
> an 8"x9"x3" black plastic box with a LCD readout and 12 digit keypad for
> programming, and 3 BNCs for input, output for a scope, and sync. A 4
> position rotary switch for off, 50 ohm, 75 ohm and monitor. It looks like
> the cable type and velocity factor as well as other parameters such as
> meters, feet, or nanoseconds can be programmed. It's portable,battery
> powered and on powering the LCD indicates XEROX 1985. It seems to work but
> I get an ERROR indication most of the time because im hacking and don't know
> what I 'm doing without basic instructions. No luck with Google or
> xerox.com, xdss.com or their 800 number. Any tips or leads on how to run or
> program this thing appreicated.
> tnx

Gotta love modern technology. The TDR I used when I was in the Air
Force back in the 70s was about the size of a small footlocker!

--

-- //Steve//

Steve Silverwood, KB6OJS
Fountain Valley, CA
Email: kb6ojs@arrl.net

## 259. Re: Knots in antenna wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-09 08:28:29 UTC
From: Martin <stop_spam@spam_sucks.net>
Message-ID: <4167a157$1_1@news.iprimus.com.au>
Source record: 88658

"Ken" <cprstn54zz@att.net> wrote in message
news:bimem0tpdq77oihbli2ceh3rn6o2rn70of@4ax.com...
>I have seen commercial wire antennas where the insulated wire is tied
> to the center insulator with a clinch knot having three turns and then
> the end of the wire (protruding from the knot) is stripped and
> connected to the feedline.
>
> Does forcing the RF current though a knot at the feedpoint have a
> significant affect on propagation?
>
> Ken KC2JDY
>
>

Your voice comes out with a knot in it.... ;-)

> Ken
> (to reply via email
> remove "zz" from address)

## 260. Re: High Efficiency Mobile HF Antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-09 08:41:51 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0410090041.6f43d770@posting.google.com>
Source record: 88654

"Craig Buck" <k4ia@cox.net> wrote in message
>
> Another way to consider it: Mobile operating is unique in that signals had
> better be pretty strong to begin with or you won't hear the station over the
> cab noise, QSB from moving past a truck and RFI from the cars around you.
> To say the full size screwdriver is two S units better on 40 means nothing
> because you couldn't understand an S2 signal on the full size either. If
> the signals are strong enough, an S9 on the full size is just as copiable at
> S7 on the ATAS and is enough to get the job done.

Of course. The receiving s/n ratio *should* be about the same on
anything you use, being you have way more signal than you need with
even the worst antenna. Or at least on the lower bands. But that 2 s
units can mean a lot to whoever you are talking to, if the noise
levels are high. I wouldn't say it means nothing. Thats like switching
on an amplifier. MK

## 261. Re: Loop Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-09 08:45:20 UTC
From: theplanters95@aol.comnospam
Message-ID: <20041009044520.03406.00001257@mb-m25.aol.com>
Source record: 88655

>Ever hear about the problems of
>Sisyphus?
>

No, Can't say that I have heard of that.

The tubes was thinking out loud. I would like the wire to clear the roof, and I cannot remember if that tree is tall enough. I also cannot remember if the sign is tall enough -- it is a non standard billboard.

Randy

## 262. Self made antenna for CB

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-09 09:37:13 UTC
From: Johann Höchtl <johann.hoechtl@myrealbox.com>
Message-ID: <4167b086$0$20466$91cee783@newsreader02.highway.telekom.at>
Source record: 88656

Hello,

i would like to make my own antenna for CB radio, mostly because i am interessted in the technics involved, not strictly because of saving some money.

I was googling a while but unfortunately the information i gathered was rather unsatisfactory. Quite some theory but lack of practical descriptions.

Are there good links to pages how to make it's own antenna?

I am interessted in an antenna which gives me a good trade of between gain, ease of operation and ease of manufacturing.

I think now that either a "long wire antenna" or a dipole would be the best for my purpose. I would place both vertically on a fishing rod. A horizontal adjustment would yield better results in DX but not so good results for near communication, right?

But i wonder how i can make a balun on my own. I guess i need a 1:1 balun for the dipole (i use rg58 to the radio) or a 1:4? balun for the long wire.

Would the two antenna types be a good choice?

Any help would be appreciated.

Greetings,
Johann

## 263. Re: OT: "antenna" bulge under Bush's jacket

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-09 09:38:54 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <ck8bje$nsd$1@sparta.btinternet.com>
Source record: 88657

> 
> Control module :)
> 

A most apt comment!

Our brazen Tony makes no attempts to cover his up.

## 264. Re: Loop Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-09 11:19:32 UTC
From: Dave <noone@nowhere.com>
Message-ID: <uY-dnS4MMIHaVPrcRVn-pQ@crocker.com>
Source record: 88659

"Theplanters95" <theplanters95@aol.comnospam> wrote in message
news:20041009044520.03406.00001257@mb-m25.aol.com...
> >Ever hear about the problems of
> >Sisyphus?
> >
>
> No, Can't say that I have heard of that.
>
> The tubes was thinking out loud. I would like the wire to clear the roof,
and
> I cannot remember if that tree is tall enough. I also cannot remember if
the
> sign is tall enough -- it is a non standard billboard.
>
you know what... it doesn't matter. pick one, put up some wire, and put the
rf to it. situations like this are WAY too complicated for even the most
dedicated computer modeler. the best recommendation anyone can make in
cases like this is "Plug it in and try it". if it works, great, if it
doesn't work or causes problems then change something and try again.

## 265. Re: Knots in antenna wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-09 11:24:57 UTC
From: Dave <noone@nowhere.com>
Message-ID: <WZydneWmII0WV_rcRVn-rQ@crocker.com>
Source record: 88660

"Ken" <cprstn54zz@att.net> wrote in message
news:bimem0tpdq77oihbli2ceh3rn6o2rn70of@4ax.com...
> I have seen commercial wire antennas where the insulated wire is tied
> to the center insulator with a clinch knot having three turns and then
> the end of the wire (protruding from the knot) is stripped and
> connected to the feedline.
>
> Does forcing the RF current though a knot at the feedpoint have a
> significant affect on propagation?

it has absolutely NO effect on propagation. it might have a tiny effect on the feedpoint impedance at uhf, but then again you most likely won't use an antenna like that at those frequencies. i have always thought that buying wire antennas was the worst possible thing to do, they are expensive relative to the material that goes into them, they are no better than something you can build from stuff found around the house, and they are full of excuses... they are too long for your property: if you built from scratch you would cut it off and use it anyway, if you buy it you don't want to cut it. it doesn't present a good swr: if you build it you trim and adjust until it works or just put a tuner on it and forget it, if you bought it then the problem must be the balun or a trap so send in to get a replacement instead of getting on the air. etc, etc, etc.

## 266. Re: Xerox TDR ??

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-09 11:34:31 UTC
From: "J. Clarke" <jclarke@nospam.invalid>
Message-ID: <ck8jst06g2@news2.newsguy.com>
Source record: 88661
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics.equipment,comp.dcom.lans.ethernet

Steve Silverwood wrote:

> In article <tvy8d.2697$q%7.2455@newssvr11.news.prodigy.com>,
> kolesnik@sbcglobal.net says...
>> I just got a Xerox Digital Time Domain Reflectometer Model 600T80024.
>> It's an 8"x9"x3" black plastic box with a LCD readout and 12 digit keypad
>> for
>> programming, and 3 BNCs for input, output for a scope, and sync. A 4
>> position rotary switch for off, 50 ohm, 75 ohm and monitor. It looks
>> like the cable type and velocity factor as well as other parameters such
>> as
>> meters, feet, or nanoseconds can be programmed. It's portable,battery
>> powered and on powering the LCD indicates XEROX 1985. It seems to work
>> but I get an ERROR indication most of the time because im hacking and
>> don't know
>> what I 'm doing without basic instructions. No luck with Google or
>> xerox.com, xdss.com or their 800 number. Any tips or leads on how to run
>> or program this thing appreicated.
>> tnx
>
> Gotta love modern technology. The TDR I used when I was in the Air
> Force back in the 70s was about the size of a small footlocker!

Got a motherboard the other day that has a Marvell Yukon gigabit chip on it.
Comes with "virtual cable tester" (VCT) software. Reading the white paper
on the Marvell site it turns out that the VCT uses a TDR built into the
gigabit chip.

Board with those chips are available for 30 bucks.

--
--John
Reply to jclarke at ae tee tee global dot net
(was jclarke at eye bee em dot net)

## 267. Re: Knots in antenna wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-09 13:13:10 UTC
From: Ken <cprstn54zz@att.net>
Message-ID: <6kofm0hq9poaf5djb5lutfd4it0064va36@4ax.com>
Source record: 88662

On Sat, 9 Oct 2004 11:24:57 -0000, "Dave" <noone@nowhere.com> wrote:

> I have always thought that buying
>wire antennas was the worst possible thing to do . . .

I am in general agreement. I asked because I am making my own QRP 40M double zepp and was trying to decide how to attach the 26 ga stranded, insulated copper clad steel wire to the center conductor. I like to leave the insulation on because the knot does not weaken the wire as much as putting a knot in bare wire (smaller radii). I was considering stripping a section of the wire just beyond the knot and soldering the feed lines there, but figured it just wasn't worth the trouble.

Ken KC2JDY

Ken
(to reply via email
remove "zz" from address)

## 268. Re: Knots in antenna wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-09 13:19:49 UTC
From: Murray <me@erewhon.com.au>
Message-ID: <4167e572$0$1281$5a62ac22@per-qv1-newsreader-01.iinet.net.au>
Source record: 88663

I have heard of people putting a knot in an
appliance cord to stop lightning surges getting to
equipment! :-)

Murray vk4aok

Ken wrote:
> I have seen commercial wire antennas where the insulated wire is tied
> to the center insulator with a clinch knot having three turns and then
> the end of the wire (protruding from the knot) is stripped and
> connected to the feedline.
>
> Does forcing the RF current though a knot at the feedpoint have a
> significant affect on propagation?
>
> Ken KC2JDY
>
>
> Ken
> (to reply via email
> remove "zz" from address)

## 269. Re: solid or stranded copper best ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-09 14:08:23 UTC
From: Bob Miller <rmiller47@satx.rr.com>
Message-ID: <7jrfm012krpi7ejfhqm1e5fteqffru3a0h@4ax.com>
Source record: 88664

On 8 Oct 2004 20:11:16 -0700, carkenord@juno.com (Lee Carkenord)
wrote:

>My old delta loop on 20M SSB finally quit. Actually, it was destroyed
>in a hailstorm. It was made of 18 gauge solid Copperweld, and stayed
>up in the Denver smog for many years.
>
>This equilateral antenna was mounted vertically, with apex up, fed in
>middle of base.
>
>It was a real good antenna, and I'm going to put up a replacement,
>with same basic parameters.
>
>In terms of strength, longevity, fatigue resistance, and resistance to
>stretching which would be better, 12 to 16 gauge solid copper, or
>12-16 gauge stranded copper?

If stranded and bare, moisture can get between the strands and shorten
the life. There might also be some added noise.
>
>Insulated or non-insulated?

For stranded wire in your climate, you probably want it insulated.
>
>If I use insulated 12-16 gauge copper, how much should I shorten the
>overall length, expressed as a percentage, as compared to the bare 18
>gauge Copperweld I had up before the storm? I will want this antenna
>cut for same freq (14.225 Mhz) as the previous one.

My Wirebook IV says shorten insulated antenna wire by 1 to 4 percent.

I'm having pretty good luck on an 80 meter dipole with the Wireman's
#18 stranded, "silky" insulated CCS.

Bob
k5qwg

>
>Thank you..... Lee Carkenord KA0FPJ

## 270. Re: Why do WiFi basestations use two antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-09 14:19:46 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <epsfm0lgccv6r3uvpg9opsu8mqoe9pb8re@4ax.com>
Source record: 88665
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,uk.radio.amateur,uk.tech.broadcast

On Fri, 8 Oct 2004 07:55:41 -0500, "WB4JNX" <ndlnews@comcast.net>
wrote:

>"Gordon Hudson" <gordon@usenet2.hostroute.co.uk> wrote in message
>news:41655d88$0$94921$5a6aecb4@news.aaisp.net.uk...
>> Go to an amateur radio rally and you will see what I meant.
>> Grubby parkas and amaruer rado seem to go together like....
>
>Don't forget those weird fabric blue jeans that are susposed to be blue
>jeans but they look like polyester painted to look like blue jeans.
>Usually worn with the greasy parkas.

Hams at UK rallies typically tend to smell rather badly, too. And look
like child molesters. Is this a world-wide phenomenon or a purely
British one?

--

"What is now proved was once only imagin'd." - William Blake, 1793.

## 271. Re: Self made antenna for CB

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-09 15:29:43 UTC
From: darleyput@hotmail.com
Message-ID: <ck908t$906$1@news5.svr.pol.co.uk>
Source record: 88666

http://www.citizensband.iofm.net/equip/antenna.php

stuff about CB antennas how to trim / tune,
not to technical.

## 272. Re: Self made antenna for CB

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-09 15:34:10 UTC
From: darleyput@hotmail.com
Message-ID: <ck90dn$llu$1@newsg3.svr.pol.co.uk>
Source record: 88667

http://www.citizensband.iofm.net/projects/dipole.php

## 273. Re: Self made antenna for CB

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-09 15:37:55 UTC
From: darleyput@hotmail.com
Message-ID: <ck90km$lr0$1@newsg3.svr.pol.co.uk>
Source record: 88668

http://home.att.net/~wizardoz/cbmw/antenna_fabri.html#doit

## 274. Re: Why do WiFi basestations use two antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-09 15:42:15 UTC
From: "Jock." <real_class_a@yahoo.co.uk>
Message-ID: <4l1gm09pebulm1ncn516qr89affq4qdhvr@4ax.com>
Source record: 88669
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,uk.radio.amateur,uk.tech.broadcast

On Sat, 09 Oct 2004 15:19:46 +0100, Paul Burridge <pb@notthisbit.osiris1.co.uk>
wrote:

>Hams at UK rallies typically tend to smell rather badly, too. And look
>like child molesters. Is this a world-wide phenomenon or a purely
>British one?

Must be purely British as no other country seems to have the
paranoia we seem to have about child molesters.

--

Jock.

Even the most scornful of Welshmen can feel a modicum
of sympathy for the English, who must now employ a
cast-off Scandinavian to manage their limp excuse for
a football team.
- John Humphreys, Broadcaster.

## 275. Re: OT: "antenna" bulge under Bush's jacket

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-09 16:40:23 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <214gm09huo4msoarehfru4va2qjmpjls9p@4ax.com>
Source record: 88670

On Fri, 08 Oct 2004 19:15:22 -0500, Butch <lynyrd@cableone.net> wrote:
>Bullet proof vest showing.

Hi Butch,

The New York Times reported the Salon report of this, and did some follow up by calling the White House.

First they said the picture was doctored.

Hmmmm, no, it shows in the video stream quite plainly.

Could it be his bullet proof vest? They said, no, he wasn't wearing one.

Then they said it was a wrinkle - an oblong rectangular wrinkle. (Presumably shrub sleeps in his suit or worried it into knots back stage).

Anyway, I missed the live feed last night - tape spared me the misery of having to see the entire snooze-fest. We went to hear Mort Sahl who stunned the audience by telling us he had done a Republican benefit.

Mort was invited by his West Point classmate, General Haig, to Haig's place on a barrier island in Florida for a meeting of a small circle of 33 friends. They all stood around and chit-chatted and someone asked the prez a question about his days boozing and smoking crack. The prez turned to Rove, they conferred and he turned back and said he was a different man from then. Some on mentioned about his born again faith and asked about a quote of his about going to heaven "wouldn't Jesus, under your definition have a hard time getting into heaven?" The prez again turns to Rove, they confer, and he turns back to offer "they don't make Jews like they used to."

Then it was Mort's turn one-on-one. The prez took his hand and asked "Are you prepared to make a sacrifice to fight terrorism?" Mort responded quickly "The spirit is willing, but the flesh is weak after having fought the communists."

Well, the upshot of this meeting is those 33 took out their pens and wrote checks to the sum of $1,370,000.00. Presumably it helped buy a better RF link system and covered the salary of a debate coach (they should get a refund).

73's
Richard Clark, KB7QHC

## 276. Re: Why do WiFi basestations use two antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-09 19:06:54 UTC
From: Ivor Jones <this.address@notvalid.inv>
Message-ID: <ck9csg$v83$1@newsg3.svr.pol.co.uk>
Source record: 88571
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,uk.radio.amateur,uk.tech.broadcast

"Paul Burridge" <pb@notthisbit.osiris1.co.uk> wrote in message
news:epsfm0lgccv6r3uvpg9opsu8mqoe9pb8re@4ax.com...
> On Fri, 8 Oct 2004 07:55:41 -0500, "WB4JNX" <ndlnews@comcast.net>
> wrote:
>
>>"Gordon Hudson" <gordon@usenet2.hostroute.co.uk> wrote in message
>>news:41655d88$0$94921$5a6aecb4@news.aaisp.net.uk...
>>> Go to an amateur radio rally and you will see what I meant.
>>> Grubby parkas and amaruer rado seem to go together like....
>>
>>Don't forget those weird fabric blue jeans that are susposed to be blue
>>jeans but they look like polyester painted to look like blue jeans.
>>Usually worn with the greasy parkas.
>
> Hams at UK rallies typically tend to smell rather badly, too. And look
> like child molesters. Is this a world-wide phenomenon or a purely
> British one?

As a UK amateur who attends rallies (not "ham" please, it makes me sound like something off the butcher's slab..!) I take offence at that. I don't look like a child molester, at least nobody has ever told me I do. Nor do I smell.

Please retract your statement forthwith.

Ivor

## 277. Re: solid or stranded copper best ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-09 19:25:23 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <DWW9d.15275$Qv5.9479@newssvr33.news.prodigy.com>
Source record: 88572

Lee,
I think it's more a matter of preference than actual
(practical) differences between stranded and solid wire.
There is the possibility of interaction between the strands
of stranded wire (corrosion, smog, 'stuff'), no idea if it
would be objectionable in your area. One 'alternative' if
you decide on stranded wire is to use insulated wire and
seal it where you have to make connections. Ought'a make it
last longer before any of the 'interaction' between strands
begins.
You already have a fairly good idea of how long Copperweld
will last. Other types of wire will probably last about as
long, sort of.
The diameter of the conductor at HF is going to make very
little (if any) practical difference in length. You will still
have to do the normal 'checking and chopping' for resonance and
that will take care of any differences because of diameter. It's
frequency dependent, the higher the frequency, the more difference
it will make (but we're talking huge differences in frequency, not
Khz or Mhz differences).
The 'best' kind of wire to use is whatever you happen to have
the most of...
'Doc

## 278. Re: OT: "antenna" bulge under Bush's jacket

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-09 19:27:02 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <aYW9d.15276$Qv5.5016@newssvr33.news.prodigy.com>
Source record: 88573

Bob,
More likely the 'seam' of a bullet proof vest.
'Doc

## 279. Re: Self made antenna for CB

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-09 19:31:00 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <I%W9d.302272$%n4.57313@bignews6.bellsouth.net>
Source record: 88574

You'll find a simple dipole may be your best choice for starting out.
Most important of all is to get the antenna up high and use vertical
orientation.
If I recall, each leg of the dipole should be around 102 inches.

"Johann Höchtl" <johann.hoechtl@myrealbox.com> wrote in message
news:4167b086$0$20466$91cee783@newsreader02.highway.telekom.at...
> Hello,
>
> i would like to make my own antenna for CB radio, mostly because i am
> interessted in the technics involved, not strictly because of saving
> some money.
>
> I was googling a while but unfortunately the information i gathered was
> rather unsatisfactory. Quite some theory but lack of practical
descriptions.
>
>
> Are there good links to pages how to make it's own antenna?
>
>
> I am interessted in an antenna which gives me a good trade of between
> gain, ease of operation and ease of manufacturing.
>
> I think now that either a "long wire antenna" or a dipole would be the
> best for my purpose. I would place both vertically on a fishing rod.
> A horizontal adjustment would yield better results in DX but not so good
> results for near communication, right?
>
> But i wonder how i can make a balun on my own. I guess i need a 1:1
> balun for the dipole (i use rg58 to the radio) or a 1:4? balun for the
> long wire.
>
> Would the two antenna types be a good choice?
>
> Any help would be appreciated.
>
> Greetings,
> Johann

---
Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.772 / Virus Database: 519 - Release Date: 10/1/2004

## 280. Re: Why do WiFi basestations use two antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-09 19:58:18 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <0dggm0lsf7io0fo51fhm86jtlgsa26tjq3@4ax.com>
Source record: 88575
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,uk.radio.amateur,uk.tech.broadcast

```
On Sat, 9 Oct 2004 19:06:54 -0000, "Ivor Jones"
<this.address@notvalid.inv> wrote:

>
>"Paul Burridge" <pb@notthisbit.osiris1.co.uk> wrote in message
>news:epsfm0lgccv6r3uvpg9opsu8mqoe9pb8re@4ax.com...
>> On Fri, 8 Oct 2004 07:55:41 -0500, "WB4JNX" <ndlnews@comcast.net>
>> wrote:
>>
>>>"Gordon Hudson" <gordon@usenet2.hostroute.co.uk> wrote in message
>>>news:41655d88$0$94921$5a6aecb4@news.aaisp.net.uk...
>>>> Go to an amateur radio rally and you will see what I meant.
>>>> Grubby parkas and amaruer rado seem to go together like....
>>>
>>>Don't forget those weird fabric blue jeans that are susposed to be blue
>>>jeans but they look like polyester painted to look like blue jeans.
>>>Usually worn with the greasy parkas.
>>
>> Hams at UK rallies typically tend to smell rather badly, too. And look
>> like child molesters. Is this a world-wide phenomenon or a purely
>> British one?
>
>As a UK amateur who attends rallies (not "ham" please, it makes me sound
>like something off the butcher's slab..!) I take offence at that. I don't
>look like a child molester, at least nobody has ever told me I do. Nor do
>I smell.
>
>Please retract your statement forthwith.

I certainly will not! I'm also a UK amateur/ham who attends rallies so
the slur is equally applicable to me as well. The remark is a
generalisation, of course and doesn't apply to every single ham in the
country. Just a significant proportion. But I dare say the same could
be said for train-spotters, real-ale enthusiasts and stamp collectors.
--

"What is now proved was once only imagin'd." - William Blake, 1793.
```

## 281. Re: 18nH Inductor--Thanks!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-09 20:50:51 UTC
From: Joe <nuisancewildlife@nospamearthlink.net>
Message-ID: <LaY9d.13496$gs1.5769@newsread2.news.atl.earthlink.net>
Source record: 88576
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:10megpq4nfhsc78@corp.supernews.com...
> Joe wrote:
> > . . .
> > I was wondering about a post I read somewhere else a long time ago. Is
there
> > such a thing as a paste (that comes in a tube) that can be applied to
the
> > terminals of a surface mount device and then when it is stuck to the
board,
> > the paste hardens into something like hardened solder? So it is mounted
to
> > the board and soldered with this paste?
>
> One-part conductive epoxy fits that description. It's commonly used to
> mount SMT parts on hybrid circuits. However, the ones I'm familiar with
> require curing at an elevated temperature (e.g., 150C for an hour). I
> believe there are also some UV curing conductive epoxies. Conductive
> epoxy can be used for mounting parts on a PCB, too, but I don't think
> it's commonly done because it's considerably more expensive than solder.
> There might be two-part conductive epoxies that cure at room
> temperature, but I've never used one and am not sure they exist. The
> one-part epoxies I've used aren't conductive until they're cured -- the
> tiny conductive (gold or silver) particles in the paste don't contact
> each other until the curing process causes the epoxy to shrink and pull
> them together.
>
> Then there's solder paste, nearly universally used for mounting parts on
> PCBs. This also fits your description and can by applied by hand with a
> syringe, then melted by a number of means -- hot air, IR, soldering
> iron. It's actually a slurry of flux and tiny spheres of solder. It's
> not really sticky, but sort of gummy, so some other means (like
> superglue) has to be used if the parts need to be kept in place when the
> board is inverted or severely disturbed before the paste is melted.
>
> Roy Lewallen, W7EL

Thanks Roy,

It sounds like the solder paste is what I heard about. Sounds easier than
trying to solder such small parts with an iron. I will see if mouser carries
it and give it a try.

Joe
KB1KVI

## 282. Re: Why do WiFi basestations use two antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-09 22:49:42 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <ck9pu6$47o$1@titan.btinternet.com>
Source record: 88577
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,uk.radio.amateur,uk.tech.broadcast

```
> >Hams at UK rallies typically tend to smell rather badly, too. And look
> >like child molesters. Is this a world-wide phenomenon or a purely
> >British one?
>
> Must be purely British as no other country seems to have the
> paranoia we seem to have about child molesters.
>
==================================

All physical contact and association between people of all ages is
fundamentally sexual in nature. It's for the propagation of our species.
Otherwise there is no genetical reason for contact. It's all built into our
genes.
```

## 283. Re: Self made antenna for CB

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-09 23:15:33 UTC
From: Dan/W4NTI <w4nti@get>
Message-ID: <pi_9d.13740$gs1.8817@newsread2.news.atl.earthlink.net>
Source record: 88578

Get yourself a empty can of coffee. Place a light bulb in it. Hook the
coax to it. Remember the shield goes to the negative of the bulb.

Seal the can with lead solder.
Bury 15 feet underground.

Enjoy.

Dan/W4NTI

"Johann Höchtl" <johann.hoechtl@myrealbox.com> wrote in message
news:4167b086$0$20466$91cee783@newsreader02.highway.telekom.at...
> Hello,
>
> i would like to make my own antenna for CB radio, mostly because i am
> interessted in the technics involved, not strictly because of saving
> some money.
>
> I was googling a while but unfortunately the information i gathered was
> rather unsatisfactory. Quite some theory but lack of practical
descriptions.
>
>
> Are there good links to pages how to make it's own antenna?
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> I am interessted in an antenna which gives me a good trade of between
> gain, ease of operation and ease of manufacturing.
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> I think now that either a "long wire antenna" or a dipole would be the
> best for my purpose. I would place both vertically on a fishing rod.
> A horizontal adjustment would yield better results in DX but not so good
> results for near communication, right?
>
> But i wonder how i can make a balun on my own. I guess i need a 1:1
> balun for the dipole (i use rg58 to the radio) or a 1:4? balun for the
> long wire.
>
> Would the two antenna types be a good choice?
>
> Any help would be appreciated.
>
> Greetings,
> Johann

## 284. Re: OT: "antenna" bulge under Bush's jacket

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-09 23:15:58 UTC
From: Butch <lynyrd@cableone.net>
Message-ID: <4168712E.6090107@cableone.net>
Source record: 88579

Richard, you must be old too. I know Mort, I knew mort. I know I'm getting old because I keep correcting myself, or at least sort of changing what I said, well, not really changing it more like re-correcting it,..sorta.

Butch

Richard Clark wrote:
> On Fri, 08 Oct 2004 19:15:22 -0500, Butch <lynyrd@cableone.net> wrote:
>
>>Bullet proof vest showing.
>
>
> Hi Butch,
>
> The New York Times reported the Salon report of this, and did some
> follow up by calling the White House.
>
> First they said the picture was doctored.
>
> Hmmmm, no, it shows in the video stream quite plainly.
>
> Could it be his bullet proof vest? They said, no, he wasn't wearing
> one.
>
> Then they said it was a wrinkle - an oblong rectangular wrinkle.
> (Presumably shrub sleeps in his suit or worried it into knots back
> stage).
>
> Anyway, I missed the live feed last night - tape spared me the misery
> of having to see the entire snooze-fest. We went to hear Mort Sahl
> who stunned the audience by telling us he had done a Republican
> benefit.
>
> Mort was invited by his West Point classmate, General Haig, to Haig's
> place on a barrier island in Florida for a meeting of a small circle
> of 33 friends. They all stood around and chit-chatted and someone
> asked the prez a question about his days boozing and smoking crack.
> The prez turned to Rove, they conferred and he turned back and said he
> was a different man from then. Some on mentioned about his born again
> faith and asked about a quote of his about going to heaven "wouldn't
> Jesus, under your definition have a hard time getting into heaven?"
> The prez again turns to Rove, they confer, and he turns back to offer
> "they don't make Jews like they used to."
>

> Then it was Mort's turn one-on-one. The prez took his hand and asked
> "Are you prepared to make a sacrifice to fight terrorism?" Mort
> responded quickly "The spirit is willing, but the flesh is weak after
> having fought the communists."
>
> Well, the upshot of this meeting is those 33 took out their pens and
> wrote checks to the sum of $1,370,000.00. Presumably it helped buy a
> better RF link system and covered the salary of a debate coach (they
> should get a refund).
>
> 73's
> Richard Clark, KB7QHC

## 285. Re: OT: "antenna" bulge under Bush's jacket

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-09 23:17:14 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <_j_9d.9173$nj.7870@newssvr13.news.prodigy.com>
Source record: 88580

Dave VanHorn wrote:
> Control module :)
>

That's right, the modern day equivalent of
puppet strings.
73,
Tom Donaly, KA6RUH

## 286. Re: OT: "antenna" bulge under Bush's jacket

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-10 00:01:55 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <cusgm0dfujcqcvlvk37d47n3dne9mpd7sq@4ax.com>
Source record: 88581

On Sat, 09 Oct 2004 18:15:58 -0500, Butch <lynyrd@cableone.net> wrote:
>Richard, you must be old too. I know Mort, I knew mort. I know I'm
>getting old because I keep correcting myself, or at least sort of
>changing what I said, well, not really changing it more like
>re-correcting it,..sorta.

Hi Butch,

I ran into Mort and like satire courtesy of innumerable venues like Jack Paar (I always tuned in for Oscar Levant, "Memoirs of an Amnesiac"), Ernie Kovacs, Steve Allen, TW3 (That Was The Week That Was), Lenny Bruce (Who Was that Masked Man?) and found that talent that came out of the Hungry i (Shelley Berman, Jonathan Winters, Dick Gregory, Bob Newhart, Bill Cosby) was always top-notch.

Following Rodney Dangerfield's death last week, a New York Times writer noted that very few of the original Borscht Belt comics were alive. He went down the list and decided to call Don Rickles. When they were talking he mentioned Don was the "last comic standing." Rickles in his inimitable form said "you mean like a Jew at the Alamo?"

Mort had some comments about today's comics on the cable - much too vulgar. The vice-prez conforms to this without shame and certainly no humor (talk about old). As far as these comics' political savvy, he said they were all too conscious of keeping their jobs to "go there." This is from a man who laughed at 10 presidents (for good reason).

As for the age factor, the audience was gray to say the least. However there were a smattering of younger members in the audience and when he opened the mike to questions, they lit up like firecrackers to his observations.

Last week we went to listen to Daniel Ellsberg and company and following the questions, we walked out and I had to mutter "What a bunch of Whackos!" My XYL stuck her elbow in my ribs to keep my voice down (but smiled at the observation nonetheless). It was like being at a meeting of the young republ -eh- communists (hard to tell the difference these days).

It seems, as always, that comedy is revolutionary and politics is laughable.

73's
Richard Clark, KB7QHC

73's
Richard Clark, KB7QHC

## 287. Incorporating a Terk TV-5 as part of a beam?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-10 04:59:41 UTC
From: Richard Lane <rqlhgl@ieee.org>
Message-ID: <4168c2ef@sys13.hou.wt.net>
Source record: 88582

I live 50m from TV transmitters, want to enhance ch9 (187mHz) without using a roof antenna and have a Terk TV-5 amplified set top antenna. Is it possible to place directors ahead of its dipole and a reflector behind to increase the forward gain and null some of the multipaths?
Dick

## 288. Re: Self made antenna for CB

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-10 06:58:28 UTC
From: Johann Höchtl <johann.hoechtl@myrealbox.com>
Message-ID: <4168dcd3$0$31896$91cee783@newsreader02.highway.telekom.at>
Source record: 88583

Do you yield good results with this kind of antenna? Yes? Might be the
trolls ...

Dan/W4NTI wrote:
> Get yourself a empty can of coffee. Place a light bulb in it. Hook the
> coax to it. Remember the shield goes to the negative of the bulb.
>
> Seal the can with lead solder.
> Bury 15 feet underground.
>
> Enjoy.
>
> Dan/W4NTI
>
> "Johann Höchtl" <johann.hoechtl@myrealbox.com> wrote in message
> news:4167b086$0$20466$91cee783@newsreader02.highway.telekom.at...
>
>>Hello,
>>
>>i would like to make my own antenna for CB radio, mostly because i am
>>interessted in the technics involved, not strictly because of saving
>>some money.
>>
>>I was googling a while but unfortunately the information i gathered was
>>rather unsatisfactory. Quite some theory but lack of practical
>
> descriptions.
>
>>
>>Are there good links to pages how to make it's own antenna?
>>
>>
>>I am interessted in an antenna which gives me a good trade of between
>>gain, ease of operation and ease of manufacturing.
>>
>>I think now that either a "long wire antenna" or a dipole would be the
>>best for my purpose. I would place both vertically on a fishing rod.
>>A horizontal adjustment would yield better results in DX but not so good
>>results for near communication, right?
>>
>>But i wonder how i can make a balun on my own. I guess i need a 1:1
>>balun for the dipole (i use rg58 to the radio) or a 1:4? balun for the
>>long wire.
>>

>>Would the two antenna types be a good choice?
>>
>>Any help would be appreciated.
>>
>>Greetings,
>>Johann
>
>
>

## 289. Re: Why do WiFi basestations use two antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-10 08:40:10 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2ssb1jF1ngvmbU1@uni-berlin.de>
Source record: 88584
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,uk.radio.amateur,uk.tech.broadcast

And here in Britland, those who originated or who now
support the gangrenous degeneration that is the M3/CB
Fools License scheme have f*cked Ham Radio good and proper!

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:ck9pu6$47o$1@titan.btinternet.com...
> All physical contact and association between people of all ages is
> fundamentally sexual in nature. It's for the propagation of our species.
> Otherwise there is no genetical reason for contact. It's all built into
our
> genes.

## 290. Re: Why do WiFi basestations use two antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-10 09:32:50 UTC
From: Frank Turner-Smith G3VKI <g3vki@turner-smith.co.uk>
Message-ID: <2ssdtpF1nue81U2@uni-berlin.de>
Source record: 88585
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,uk.radio.amateur,uk.tech.broadcast

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:ck9pu6$47o$1@titan.btinternet.com...
>> >Hams at UK rallies typically tend to smell rather badly, too. And look
>> >like child molesters. Is this a world-wide phenomenon or a purely
>> >British one?
>>
>> Must be purely British as no other country seems to have the
>> paranoia we seem to have about child molesters.
>>
> ==========
>
> All physical contact and association between people of all ages is
> fundamentally sexual in nature. It's for the propagation of our species.
> Otherwise there is no genetical reason for contact. It's all built into
> our
> genes.
>
>
So if you meet somebody for the first time and shake hands it really means
you want to shag him / her? I find that difficult to believe.
--
;>)
73 de Frank Turner-Smith G3VKI - mine's a pint.
http://turner-smith.co.uk

## 291. Re: Why do WiFi basestations use two antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-10 09:37:36 UTC
From: Frank Turner-Smith G3VKI <g3vki@turner-smith.co.uk>
Message-ID: <2sse6nF1nue81U3@uni-berlin.de>
Source record: 88586
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,uk.radio.amateur,uk.tech.broadcast

"Airy R. Bean, village idiot" <me@privacy.net> escaped from his padded cell
and wrote in message news:2ssb1jF1ngvmbU1@uni-berlin.de...
> And here in Britland, those who originated or who now
> support the gangrenous degeneration that is the M3/CB
> Fools License scheme have f*cked Ham Radio good and proper!
>
YAWN! I knew your exodus was too good to last.
...(_!_)...

## 292. Re: Why do WiFi basestations use two antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-10 11:12:02 UTC
From: Nimrod <nospamfor@me.com>
Message-ID: <2sskkoF1o9belU1@uni-berlin.de>
Source record: 88587
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,uk.radio.amateur,uk.tech.broadcast

"Airy R. Bean" <me@privacy.net> wrote in message
news:2ssb1jF1ngvmbU1@uni-berlin.de...

aka: G4SDW , GA EVANS, 13 HARDENS CLOSE, CHIPPENHAM
WILTS, SN15 3AA UK

> And here in Britland, those who originated or who now
> support the gangrenous degeneration that is the M3/CB
> Fools License scheme have f*cked Ham Radio good and proper!
>

Still feeling a bit rejected Gareth?

## 293. Re: Why do WiFi basestations use two antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-10 11:42:08 UTC
From: "Jock." <real_class_a@yahoo.co.uk>
Message-ID: <2v7im0hmeid0uf7qgcb3gkttq9rfuk9tme@4ax.com>
Source record: 88589
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,uk.radio.amateur,uk.tech.broadcast

On Sat, 9 Oct 2004 22:49:42 +0000 (UTC), "Reg Edwards" <g4fgq.regp@ZZZbtinternet.com>
wrote:

>> >Hams at UK rallies typically tend to smell rather badly, too. And look
>> >like child molesters. Is this a world-wide phenomenon or a purely
>> >British one?
>>
>> Must be purely British as no other country seems to have the
>> paranoia we seem to have about child molesters.
>>
>==========
>
>All physical contact and association between people of all ages is
>fundamentally sexual in nature. It's for the propagation of our species.
>Otherwise there is no genetical reason for contact. It's all built into our
>genes.

Speak for yourself, Reg!

--

Jock.

To be a Frenchman abroad is to be miserable;
to be an American abroad is to make others miserable.

## 294. Re: Why do WiFi basestations use two antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-10 11:42:26 UTC
From: "Daniel Kelly (AKA Jack)" <d.kellyNOSPAM@NOSPAM.ucl.ac.uk>
Message-ID: <ckb710$jb4$1@uns-a.ucl.ac.uk>
Source record: 88588
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,uk.radio.amateur,uk.tech.broadcast

Yes, that's what you'll be telling you lawer when you've been done for
kiddie porn. (joke)

But, seriously, that sort of evolutionary psychology is fatally flawed. The
most glaring problem with it is that we're social animals - what makes us
humans different from all other animals is our ability to share thoughts.
What makes humans such a powerful (or lethal, depending on your perspective)
species is that we no longer have to wait millenia to evolve new faculties -
we can evolve *culturally*, which is orders of magnitude faster than
biological evolution.

So, what I'm getting at is that there are loads of reasons for associating
with other people other than to get your end away. What we're doing right
now is an example - we all feel compelled to share our thoughts on these
news groups without any desire to have sex.

Jack.

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:ck9pu6$47o$1@titan.btinternet.com...
> > >Hams at UK rallies typically tend to smell rather badly, too. And look
> > >like child molesters. Is this a world-wide phenomenon or a purely
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> > Must be purely British as no other country seems to have the
> > paranoia we seem to have about child molesters.
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> ==================================
>
> All physical contact and association between people of all ages is
> fundamentally sexual in nature. It's for the propagation of our species.
> Otherwise there is no genetical reason for contact. It's all built into
our
> genes.
>
>

## 295. Re: Self made antenna for CB

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-10 11:57:44 UTC
From: KC8QJP <KC8QJP@crisco.net>
Message-ID: <2ssmh2F1oqerhU1@uni-berlin.de>
Source record: 88590

Can you use a crisco can? I have a lot of those laying around from our
crisco slather partys.
>
"Dan/W4NTI" <w4nti@get rid of this mindspring.com> wrote in message
news:pi_9d.13740$gs1.8817@newsread2.news.atl.earthlink.net...
> Get yourself a empty can of coffee. Place a light bulb in it. Hook the
> coax to it. Remember the shield goes to the negative of the bulb.
>
> Seal the can with lead solder.
> Bury 15 feet underground.
>
> Enjoy.
>
> Dan/W4NTI
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> "Johann Höchtl" <johann.hoechtl@myrealbox.com> wrote in message
> news:4167b086$0$20466$91cee783@newsreader02.highway.telekom.at...
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>>
>> i would like to make my own antenna for CB radio, mostly because i am
>> interessted in the technics involved, not strictly because of saving
>> some money.
>>
>> I was googling a while but unfortunately the information i gathered was
>> rather unsatisfactory. Quite some theory but lack of practical
> descriptions.
>>
>>
>> Are there good links to pages how to make it's own antenna?
>>
>>
>> I am interessted in an antenna which gives me a good trade of between
>> gain, ease of operation and ease of manufacturing.
>>
>> I think now that either a "long wire antenna" or a dipole would be the
>> best for my purpose. I would place both vertically on a fishing rod.
>> A horizontal adjustment would yield better results in DX but not so good
>> results for near communication, right?
>>
>> But i wonder how i can make a balun on my own. I guess i need a 1:1
>> balun for the dipole (i use rg58 to the radio) or a 1:4? balun for the
>> long wire.
>>
>> Would the two antenna types be a good choice?

>>
>> Any help would be appreciated.
>>
>> Greetings,
>> Johann
>
>

## 296. Re: Why do WiFi basestations use two antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-10 12:22:04 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <93aim0tnv92ulaorhqb0fovssu598anvka@4ax.com>
Source record: 88591
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,uk.radio.amateur,uk.tech.broadcast

On Sun, 10 Oct 2004 10:32:50 +0100, "Frank Turner-Smith G3VKI"
<g3vki@turner-smith.co.uk> wrote:

>So if you meet somebody for the first time and shake hands it really means
>you want to shag him / her? I find that difficult to believe.

Reg is right, but it's an oversimplification. The contact can be
indirect for the purposes of self-propagation. You might not want to
shag the person you're shaking hands with, but you presumably want to
make a good impression on them. Maybe it's a job interview; maybe
you're making a new friend; whatever. The motivation (usually
subconscious) behind the gesture is to better your chances of
replicating yourself; increasing status/wealth-generation/social
standing, whatever, are means to a successful biological end.

--

"What is now proved was once only imagin'd." - William Blake, 1793.

## 297. EH-antenna: sensation or fraude?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-10 12:37:59 UTC
From: bozidar.pasaric@ri.htnet.hr
Message-ID: <1glg2yn.stvro91n531iyN%bozidar.pasaric@ri.htnet.hr>
Source record: 88592

EH-antenna: sensation or fraude?

I have been reading about the EH-antenna on many web sites and in magazines, but they were only "kitchen recipies" of how to build it - without any theoretical explanation. Practical result reports were mostly contradictory - from being equal to a full size dipole, to statements that the antenna does not radiate at all, but the coaxial lead does.

The other day I ran across the EH-antenna home web site (http://EH-antenna.com) where finally I could find the expected theory - which left me embarassed. It comes out that the EH antenna uses an until now unknown kind of magnetic field - completely different from the usual H-field. "The EH-antenna is a revolutionary concept because it does not fit the classical theory" - I can read on that Web-site. In a classical dipole the phase-shift between the E and the H field is 90 degrees. In the EH-antenna it is 0 (zero) degrees! A certain Russian phisicist Vladmir Korobeynikov reworked the famous Maxwell's four equations and they are now called "enhanced ones". Possibly he will be candidated for the Nobel prize in physics (!?). Since magnetic force-lines are closed and cannot be cut apart, underwater EH-antennas allegedly work equally well - a bonanza for submarines! It also seems that those force-lines spread across the whole Universe in zero time - which challenges the Einstein's theory of the limited speed of light to 300 000 km/sec. If all this is only partly true, this will be the greatest discovery after Heinrich Herz discovered radio waves 130 years ago.

They also say that the best communication is made between the two EH-antennas. Has anybody tried that already? I do not wish to be a primitive Earthian who does not accept progress in science; however, life has taught me to be cautious. I would like to read an official report about the EH-antenna phenomenon from a competent scientific institution, a University, a research laboratory, or similar. Any comments?
Bozidar, 9a2hl

# 298. Re: Owner's manual for the discontinued Radio Shack 15-1853 loop

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-10 12:48:24 UTC
From: usmcemen@hotmail.com
Message-ID: <81932e5c.0410100448.687b9504@posting.google.com>
Source record: 88600
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

*MANY* thanks, Randy -- and many thanks to all! Happilly enjoying my
GEIII here in Arlington VA with the added boost...

- CEZ.

"Randy A. Hefner" <randy_NO_SPAM_PLEASE_@murs-usa.com> wrote in message
news:<2si0etF1ksghkU1@uni-berlin.de>...
> http://support.radioshack.com/support_audio/doc62/62069.pdf
>
>
> "Cez" <usmcemen@hotmail.com> wrote in message
> news:81932e5c.0410031415.55e9ce73@posting.google.com...
> > Greetings, all--
> >
> > I just purchased the very last in-store stock of the 15-1853 here in
> > the DC area ($10 clearance) -- unfortunately, it was the store's old
> > floor display model, which was missing its box, the manual, and the
> > wire to run to the external AM and ground connections on the back of
> > my new GE SRIII.
> >
> > Since the 15-1853 has long since been discontinued, the Radio Shack
> > website no longer posts the online version of its owner's manual,
> > which I'm trying to track down (I need it for schematics and/or tips
> > on the optimal cable I'll need to run from the loop to the radio, plus
> > it's just my personal habit to always have owner's manuals around
> > 'just in case'). I also tried the 'Wayback Machine' at archive.org to
> > see if I could access the manual from earlier versions of the Radio
> > Shack website, but no dice...
> >
> > If anyone happens to have a copy of the 15-1853's online owner's
> > manual on hand, I'd certainly be most appreciative to receive a copy
> > via e-mail.
> >
> > Many thanks!
> >
> > - Cez.

## 299. Re: Self made antenna for CB

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-10 14:48:26 UTC
From: wa8ulx@aol.com
Message-ID: <20041010104826.02938.00001772@mb-m11.aol.com>
Source record: 88593

>Dan/W4NTI wrote:
>> Get yourself a empty can of coffee. Place a light bulb in it. Hook the
>> coax to it. Remember the shield goes to the negative of the bulb.
>>
>> Seal the can with lead solder.
>> Bury 15 feet underground.
>>
>> Enjoy.

Dan I think you forgot to mention it has 20DB GAIN.

## 300. Re: Self made antenna for CB

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-10 14:49:59 UTC
From: wa8ulx@aol.com
Message-ID: <20041010104959.02938.00001773@mb-m11.aol.com>
Source record: 88594

>Can you use a crisco can? I have a lot of those laying around from our
>crisco slather partys.

YES you can, and if you use a Bunch of them wired in series you get more GAIN,
figure 10DB more Gain for each CAN

# 301. Re: Newbie ?: I've Built A Simple 1/4 Wave Dipole for 2 Mtrs. Could I Make a1/2 Wave?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-10 15:47:21 UTC
From: Kim & Steve Merrill <buck0@comcast.net>
Message-ID: <6bCdnVeZ45P4xPTcRVn-tg@comcast.com>
Source record: 88595

Hi John and others,

Interesting topic.. I also agree with the j-pole. Not to bend any
eyebrows.
(I also have 300ohm 2M j-pole designs web-posted )

The only comment is the use of 300ohm twinlead for antenna construction.
300ohm twinlead comes in several different variations and the velocity
factors are all over the place. So, results vary!! I've answered my fair
share of e-mails in the past 5 years, trying to explain this problem to
other new Hams. This can really discourage someone that tries to build a
first time antenna with the wrong type wire.

Stuff to look for:

Don't use the "thick stuff": also called the "Heavy Duty" with a heavy thick
brown plactic covering. It is very difficult to cut and almost impossible
to work with.

Do not use the "foam type": with foam covering the wire, between the wire
and the outside black plastic casing.

Look for the "thin stuff": and the flatter the better.

Another thought is to move to a different construction material with a
little more consistency: 450ohm ladderline, Solid copper type.
Ref: http://home.comcast.net/~buck0/ll_coolj.html

Hope this helps others!
73
Steve KB1DIG

"John Steffes" <jsteffes@cfl.rr.com> wrote in message
news:Qwn6d.58789$uN5.29228@tornado.tampabay.rr.com...
> Hal,
>
> Your idea using the J-Pole is probabaly the best solution.
> 1. No radials needed
> 2. Easy to match using ANY type of feedline
> 3. Total length is about 3/4 wavelength (about 52") including matching
> section
> 4. Easy to contruct
>
> We found this URL that may give you an idea regarding contruction.
>
> http://w4zt.com/jpole/

>
> John
>
> Hal Rosser wrote:
> > If you built a dipole, then it was (most likely) not a quarter-wave -
but a
> > half-wave
> > a j-pole may be a good choice given the situation that it needs to be
'out
> > the window' and is uhf
> > or, for that matter, a coaxial half-wave dipole. (strip and fold back
> > 1/4-wave of braid - and weatherproof it)
> >
> > "WolfMan" <WMan@W2GLI.com> wrote in message
> > news:3_W5d.5585$NS1.2618920@news4.srv.hcvlny.cv.net...
> >
> >>I'm Limited To An Antenna On The Front Of My House. Out My Window I Made
A
> >
> > Simple !/4 wave Verticle Dipole. Would A 1/2 Wave Simply Be Twice The
> > Length, Using 462/f Mhz, And Would There Be An Advantage With A 1/2 Wave
> > Over a 1/4 Wave ?
> >
> >>Thanks
> >
> >
> >
> > ---
> > Outgoing mail is certified Virus Free.
> > Checked by AVG anti-virus system (http://www.grisoft.com).
> > Version: 6.0.770 / Virus Database: 517 - Release Date: 9/27/2004
> >
> >
>

## 302. Re: EH-antenna: sensation or fraude?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-10 16:38:02 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <Kzdad.4635$kz3.211@fed1read02>
Source record: 88596

"Bozidar Pasaric" <bozidar.pasaric@ri.htnet.hr> wrote in message
news:1glg2yn.stvro91n531iyN%bozidar.pasaric@ri.htnet.hr...
> EH-antenna: sensation or fraude?
>
> I have been reading about the EH-antenna on many web sites and
> in magazines, but they were only "kitchen recipies" of how to build it
> - without any theoretical explanation. Practical result reports were
> mostly contradictory - from being equal to a full size dipole, to
> statements that the antenna does not radiate at all, but the coaxial
> lead does.
>
> The other day I ran across the EH-antenna home web site
> (http://EH-antenna.com) where finally I could find the expected theory -
> which left me embarassed. It comes out that the EH antenna uses an
> until now unknown kind of magnetic field - completely different from
> the usual H-field.

And the crap begins to flow, now that classical physics has been slain.

Ed
wb6wsn

## 303. Re: Why do WiFi basestations use two antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-10 16:41:47 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <eDdad.4636$kz3.790@fed1read02>
Source record: 88597
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,uk.radio.amateur,uk.tech.broadcast

"Jock." <real_class_a@yahoo.co.uk> wrote in message
news:2v7im0hmeid0uf7qgcb3gkttq9rfuk9tme@4ax.com...
> On Sat, 9 Oct 2004 22:49:42 +0000 (UTC), "Reg Edwards"
> <g4fgq.regp@ZZZbtinternet.com>
> wrote:
>
>>> >Hams at UK rallies typically tend to smell rather badly, too. And look
>>> >like child molesters. Is this a world-wide phenomenon or a purely
>>> >British one?
>>>
>>> Must be purely British as no other country seems to have the
>>> paranoia we seem to have about child molesters.
>>>
>>>==================================
>>
>>All physical contact and association between people of all ages is
>>fundamentally sexual in nature. It's for the propagation of our species.
>>Otherwise there is no genetical reason for contact. It's all built into
>>our
>>genes.
>
> Speak for yourself, Reg!
>
> --
>
> Jock.
>
> To be a Frenchman abroad is to be miserable;
> to be an American abroad is to make others miserable.

Then it logically follows that we should kill 'em all to end their misery.

Ed
wb6wsn

## 304. Repairing a tri-band Co-linear 50/144/430 MHz

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-10 17:17:22 UTC
From: Brian Reay <brian.reay@bigfoot.com>
Message-ID: <2st93uF1nod3mU1@uni-berlin.de>
Source record: 88598

My triband co-linear has 'died'. It is a clone of the Comet GP15- the 3dBi, 6dBi, 8dBi beast about 8ft long.

I've found the fault- the capacitor that connects the inner of the coax to a tap on the matching coil. It has failed short so I can't measure it and it is too cooked to read the value.

Of course, I can have a play with a variable, checking with the antenna analyser or even SWR meter, but that will take more time than I can spare at the moment.

Anyone repaired one of these before and noted down the values of the C's in there?

--
Brian Reay
www.g8osn.org.uk
www.amateurradiotraining.org.uk
FP#898

## 305. Re: EH-antenna: sensation or fraude?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-10 17:35:39 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <e4sim01459b734smep53e2lubi6lbe2mhq@4ax.com>
Source record: 88599

On Sun, 10 Oct 2004 14:37:59 +0200, bozidar.pasaric@ri.htnet.hr
(Bozidar Pasaric) wrote:

Hi Bozidar,

>EH-antenna: sensation or fraude?

Your question contains the answer (even sensations can be frauds).

> the antenna does not radiate at all, but the coaxial
>lead does.

That is about it.

>"The EH-antenna is a revolutionary concept because
>it does not fit the classical theory"

Which explains why it does not work.

>A certain Russian
>phisicist Vladmir Korobeynikov reworked the famous Maxwell's four
>equations and they are now called "enhanced ones". Possibly he will be
>candidated for the Nobel prize in physics (!?).

He will probably get an Emmy for best Home Shopping Network Science.

>It also seems
>that those force-lines spread across the whole Universe in zero time -

Sounds like a bargain when you have to pay 25 cents a minute for a
phone call across town.

> They also say that the best communication is made between the
>two EH-antennas. Has anybody tried that already?

I am sure they are still trying. ;-)

73's
Richard Clark, KB7QHC

## 306. Re: Why do WiFi basestations use two antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-10 18:44:06 UTC
From: "Jock." <real_class_a@yahoo.co.uk>
Message-ID: <vk0jm0lrurjilqn3v02tialk6385looeld@4ax.com>
Source record: 88601
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,uk.radio.amateur,uk.tech.broadcast

On Sun, 10 Oct 2004 09:41:47 -0700, "Ed Price" <edprice@cox.net> wrote:

>
>"Jock." <real_class_a@yahoo.co.uk> wrote in message

>> To be a Frenchman abroad is to be miserable;
>> to be an American abroad is to make others miserable.
>
>Then it logically follows that we should kill 'em all to end their misery.

No, all Americans to make the world a better and safer place.

The Iraqi resistance has made a fair start anyway ...

--

Jock.

To be a Frenchman abroad is to be miserable;
to be an American abroad is to make others miserable.

## 307. Re: Why do WiFi basestations use two antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-10 18:56:24 UTC
From: zzzpk_pkearn_class_a@multi_band_cb_is_here.eircom.es.it.net
Message-ID: <416985b5.2241852@news1.eircom.net>
Source record: 88602
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,uk.radio.amateur,uk.tech.broadcast

On Sun, 10 Oct 2004 12:12:02 +0100, "Nimrod" <nospamfor@me.com> wrote:

>
>Still feeling a bit rejected Gareth?

how about publishing your own address for a change ?

or is that too much to ask.

## 308. Re: Self made antenna for CB

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-10 19:36:52 UTC
From: Johann Höchtl <johann.hoechtl@myrealbox.com>
Message-ID: <41698e95$0$31896$91cee783@newsreader02.highway.telekom.at>
Source record: 88603

Hal Rosser wrote:

> You'll find a simple dipole may be your best choice for starting out.
> Most important of all is to get the antenna up high and use vertical
> orientation.
> If I recall, each leg of the dipole should be around 102 inches.

102 inches, or 2.59 m for a metric man like me. That's right. But i bother how i can go from balanced to unbalanced. I use rg58 wire and i do not want to radio interfere my neighbours nor let my radio go up in smoke.

So i guess i need a balun. The impedance at the connector from antenna to wire should already be more or less 50 ohms, but it's balanced.

What would make an easy though effective 1:1 balun?

## 309. Re: Why do WiFi basestations use two antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-10 19:49:41 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2stiffF1oonmrU1@uni-berlin.de>
Source record: 88604
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,uk.radio.amateur,uk.tech.broadcast

He's an ex-Brit squaddie and therefore an abject coward.

You are asking the impossible of him.

"ZZZPK" <zzzpk_pkearn_class_a@multi_band_cb_is_here.eircom.es.it.net> wrote
in message news:416985b5.2241852@news1.eircom.net...
> On Sun, 10 Oct 2004 12:12:02 +0100, "Nimrod" <nospamfor@me.com> wrote:
> >Still feeling a bit rejected Gareth?
> how about publishing your own address for a change ?
> or is that too much to ask.

## 310. Re: Self made antenna for CB

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-10 20:53:42 UTC
From: Bob Bob <bcnntp@optusnet.com.au>
Message-ID: <o3ko32-jnj.ln1@p400bob.lse.com.au>
Source record: 88605

Gidday Johann

Simple balun you can use in this case is a "choke" balun. Just wind about 5 turns of the coax in a 100-150mm circle near the antenna feedpoint and tape it up. This will almost eliminate all of the line radiation.

Another way is to make a folded dipole. This has a nominal 300 ohms input impedence and feeding this with a 4:1 coaxial balun (200 ohms) is only a slight mismatch. (1.5:1 VSWR) I have also heard (but never checked/proven) that a folded dipole antenna couples to "space" better than a simple dipole. (ie is more efficient)

If you cant find an internet refernce to the above then pls ask for more info.

Cheers Bob VK2YQA

Johann Hï¿½chtl wrote:
>
>
> Hal Rosser wrote:
>
>> You'll find a simple dipole may be your best choice for starting out.
>> Most important of all is to get the antenna up high and use vertical
>> orientation.
>> If I recall, each leg of the dipole should be around 102 inches.
>
>
> 102 inches, or 2.59 m for a metric man like me. That's right. But i
> bother how i can go from balanced to unbalanced. I use rg58 wire and i
> do not want to radio interfere my neighbours nor let my radio go up in
> smoke.
>
> So i guess i need a balun. The impedance at the connector from antenna
> to wire should already be more or less 50 ohms, but it's balanced.
>
> What would make an easy though effective 1:1 balun?

## 311. Re: Why do WiFi basestations use two antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-10 20:54:37 UTC
From: Nimrod <nospamfor@me.com>
Message-ID: <2stmp0F1o6r1lU1@uni-berlin.de>
Source record: 88606
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,uk.radio.amateur,uk.tech.broadcast

"ZZZPK" <zzzpk_pkearn_class_a@multi_band_cb_is_here.eircom.es.it.net> wrote
in message news:416985b5.2241852@news1.eircom.net...
> On Sun, 10 Oct 2004 12:12:02 +0100, "Nimrod" <nospamfor@me.com> wrote:
>
> >
> >Still feeling a bit rejected Gareth?
>
>
> how about publishing your own address for a change ?
>
Like you do? HoHum maybe there is truth in those Irish jokes.

Top of the morning to you.

## 312. Re: Why do WiFi basestations use two antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-10 20:54:44 UTC
From: Nimrod <nospamfor@me.com>
Message-ID: <2stmp7F1pp4ceU1@uni-berlin.de>
Source record: 88607
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,uk.radio.amateur,uk.tech.broadcast

"Airy R. Bean" <me@privacy.net> wrote in message
news:2stiffF1oonmrU1@uni-berlin.de...
> He's an ex-Brit squaddie and therefore an abject coward.
>
> You are asking the impossible of him.
>

Couldn't stay away then Gareth?

Why exactly did you 'leave'?

I do love the way you, Matt, and lucifer are all so sure you know me. You can't all be correct. At the moment none of you are.

## 313. Re: Repairing a tri-band Co-linear 50/144/430 MHz

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-10 21:34:01 UTC
From: Dilligaf <tuskyone@yahoo.com.au>
Message-ID: <4169aace$0$652$61c65585@uq-127creek-reader-01.brisbane.pipenetworks.com.au>
Source record: 88608

there are 2 caps on the dual bander, 1pf and 8pf. if that helps,

rgds, Dennis

vk4sx

"Brian Reay" <brian.reay@(spamstopper)bigfoot.com> wrote in message
news:2st93uF1nod3mU1@uni-berlin.de...
> My triband co-linear has 'died'. It is a clone of the Comet GP15- the
> 3dBi,
> 6dBi, 8dBi beast about 8ft long.
>
> I've found the fault- the capacitor that connects the inner of the coax to
> a
> tap on the matching coil. It has failed short so I can't measure it and it
> is too cooked to read the value.
>
> Of course, I can have a play with a variable, checking with the antenna
> analyser or even SWR meter, but that will take more time than I can spare
> at
> the moment.
>
> Anyone repaired one of these before and noted down the values of the C's
> in
> there?
>
>
> --
> Brian Reay
> www.g8osn.org.uk
> www.amateurradiotraining.org.uk
> FP#898
>
>

## 314. Re: Self made antenna for CB

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-10 21:42:54 UTC
From: richardharrison@webtv.net
Message-ID: <15604-4169ACDE-30@storefull-3253.bay.webtv.net>
Source record: 88609

Johann wrote:
"A horizontal adjustment would yield better results in DX but not so good results for near communication, right?"

To reach beyond line-of-sight but not very distant locations, usually requires a reflection from the ionosphere nearly directtly overhead.

Vertical antennas tend to have a null directly overhead and tend to behave poorly for areas beyond line-of-sight that require an ionospheric reflection nearly overhead.

Low horizontal wires radiate substantial energy as antennas at high angles to the horizon, and thus they are suited to reaching areas beyond the horizon.

Best regards, Richard Harrison, KB5WZI

## 315. Re: Self made antenna for CB

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-10 21:43:49 UTC
From: richardharrison@webtv.net
Message-ID: <8572-4169AD15-88@storefull-3254.bay.webtv.net>
Source record: 88610

Johann wrote:
"A horizontal adjustment would yield better results in DX but not so good results for near communication, right?"

To reach beyond line-of-sight but not very distant locations, usually requires a reflection from the ionosphere nearly directtly overhead.

Vertical antennas tend to have a null directly overhead and tend to behave poorly for areas beyond line-of-sight that require an ionospheric reflection nearly overhead.

Low horizontal wires radiate substantial energy as antennas at high angles to the horizon, and thus they are suited to reaching areas beyond the horizon.

Best regards, Richard Harrison, KB5WZI

## 316. Re: Printing wire list from EZNEC?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-10 22:25:51 UTC
From: Chuck <wa7rai@raibeam.com>
Message-ID: <Xyiad.4108$6P5.1775@okepread02>
Source record: 88611

Hubris aside Roy, you still fail to address the
most salient: due to a programming
inconsistency - yours - your customer feels
he is left with no option but to come to this
NG in search of an answer to a dilemma.

Rather than apologizing for your programming
failure, you berate him instead.

If I were in your position (and I have been), I
would have made an apology, then offered
a free upgrade once the inconsistency was
resolved.

Is your ego so fragile that it is more important
than your customer's satisfaction?

Apparently so...

Indeed, it seems our views on business ethics
are as opposite as are our views on the need
to model a bi-directional coaxial phasing line,
as well as the induced energy that would be
present at the reverse input of such a line, in
a dual element (critically coupled) broadside
array.

> Tom, you're absolutely right. And the number of times I've been asked
> this particular question shows that I do need to address the issue being
> discussed.
>
> But. . .
>
> While there are some standards which can just about universally be
> agreed on as far as usability and consistency are concerned, there are
> vast differences in opionion about how a large number of features should
> be handled. An interface that's intuitive to one person is hopelessly
> awkward to another. I know this for a fact, since I get comments clear
> across the spectrum about the program and its interface. During product
> development, I often ask the beta testers to choose among two or more
> ways of implementing a feature, and seldom get unanimity. Two things
> I've learned in this very interesting endeavor are: 1. Avoid making
> changes or implementing features to please one or a small number of
> people. 2. You can't please everyone. Considering the complexity of the
> program, it's a certainty that everyone can find something he doesn't like.

> Complaints like Chuck's would bother me if it weren't for the very large
> number of positive comments I receive, the amateurs and professional
> customers who continue to purchase upgrades, and the commercial
> customers who keep buying more and more copies.

Since yours is one of the few available
in-depth interfaces to the NEC(n) engine, this
is not surprising. What is surprising is your
cavalier attitude - I'd think a seasoned
professional like yourself would want to do
his very best.

Chuck, WA7RAI

> Complaints and negative
> comments aren't to be ignored by any means, but the positive feedback
> keeps them in context. Anyone who does buy the program gets a fast and
> complete refund if not fully satisfied (although, ironically, they might
> not know that if they're unwilling to open the manual) -- there's simply
> no way to get a bad deal and no excuse to feel cheated. The demo program
> is exactly like the full program with the single exception of the
> segment limit, and includes the full manual, so anyone can see exactly
> what the program is like before they buy it. Those who don't like it
> hopefully won't buy it.
>
> It is indeed my goal to make the program operable without any reference
> to the manual. A secondary goal is to make the manual as complete as
> possible, so a user can easily find out how to do something that isn't
> immediately obvious (remembering that what's obvious to one person is
> often obtuse to another). I'll never fully meet both goals, but I do
> keep trying. And I appreciate the suggestions and comments.
>
> Roy Lewallen, W7EL
>
> Tom Ring wrote:
>> Roy Lewallen wrote:
>>
>>> Thanks for the responses. The suggestions were constructive, and they
>>> confirmed my observation that some people will do just about anything,
>>> including newsgroup posting, to avoid looking in the manual.
>>>
>>> Roy Lewallen, W7EL
>>
>>
>> As someone who has done a large amount of software design and
>> implementation with highly varied target audiences, I would suggest that
>> making the design such that minimal need for reference to the manual
>> because of multiple paths to user desired results is something to be
>> looked at seriously. Sorry about the awkward verbage, I'm not sure how
>> to express it elegantly.
>>
>> tom

>> K0TAR

## 317. Re: Why do WiFi basestations use two antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-10 23:35:01 UTC
From: "Jock." <real_class_a@yahoo.co.uk>
Message-ID: <mohjm0toqrt3v1psgomjku4i56caqjvuie@4ax.com>
Source record: 88612
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,uk.radio.amateur,uk.tech.broadcast

On Sun, 10 Oct 2004 21:54:44 +0100, "Nimrod" <nospamfor@me.com> wrote:

>
>"Airy R. Bean" <me@privacy.net> wrote in message
>news:2stiffF1oonmrU1@uni-berlin.de...
>> He's an ex-Brit squaddie and therefore an abject coward.
>>
>> You are asking the impossible of him.
>>
>
>Couldn't stay away then Gareth?
>
>Why exactly did you 'leave'?
>
>I do love the way you, Matt, and lucifer are all so sure you know me. You
>can't all be correct. At the moment none of you are.

Yawn!

--

Jock.

Women should not be enlightened or educated in any
way. They should, in fact, be segregated as they are
the cause of hideous and involuntary erections in
holy men.
- Augustine (attributed: source unknown)

## 318. Re: Printing wire list from EZNEC?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-11 00:02:50 UTC
From: "J. Mc Laughlin" <jcm@power-net.net>
Message-ID: <10mjjc3nl11s379@corp.supernews.com>
Source record: 88613

Let me see if I understand.
A competitor of EZNEC feels a need to draw a red fish in front of one of the most successful and effective programs in existence. One wonders why.

Disparagement from a competitor is not appropriate. Especially since anyone may and can evaluate the suitability of EZNEC without charge.

Tout the advantages of your work on your site and let the market place work.

Mac N8TT

--
J. Mc Laughlin; Michigan U.S.A.
Home: JCM@Power-Net.Net

## 319. Re: Printing wire list from EZNEC?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-11 02:28:45 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <xdmad.1816$6q2.1215@newssvr14.news.prodigy.com>
Source record: 88614

Chuck wrote:
> Hubris aside Roy, you still fail to address the
> most salient: due to a programming
> inconsistency - yours - your customer feels
> he is left with no option but to come to this
> NG in search of an answer to a dilemma.
>
> Rather than apologizing for your programming
> failure, you berate him instead.
>
> If I were in your position (and I have been), I
> would have made an apology, then offered
> a free upgrade once the inconsistency was
> resolved.
>
> Is your ego so fragile that it is more important
> than your customer's satisfaction?
>
> Apparently so...
>
> Indeed, it seems our views on business ethics
> are as opposite as are our views on the need
> to model a bi-directional coaxial phasing line,
> as well as the induced energy that would be
> present at the reverse input of such a line, in
> a dual element (critically coupled) broadside
> array.

Hi Chuck,
I'm sure you're justifiably proud of
your own programming efforts, and there's no reason
not to brag if you want to, but writing posts like this
only serves to reinforce the notion among some readers that
you've succumbed to the temptation to act like a
sanctimonious ass.
The EZNEC manual is a good thing to read if you're going
to use EZNEC. There aren't many technical instruction
manuals in the world as well written. If you've ever had
to use a manual such as the old GE Fanuc machine tool controller
instruction manual which was machine translated from Japanese to
some language that only superficially resembles English, you'll
know what I mean.
As for being able to write a program that anyone can pick
up and use without the need for written instruction, that will

always remain an unrealizable fantasy, since the user's cognitive abilities are beyond the control of the program designer.
There's a name for people who write posts full of invidious little insults, and oblique little bitch-slaps, but I won't use it here. You can bet, however, that some of the people who read your post are going to use it, if only to themselves.
73,
Tom Donaly, KA6RUH

## 320. Re: Why do WiFi basestations use two antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-11 03:29:23 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <l6nad.4733$kz3.1304@fed1read02>
Source record: 88615
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,uk.radio.amateur,uk.tech.broadcast

"Jock." <real_class_a@yahoo.co.uk> wrote in message
news:vk0jm0lrurjilqn3v02tialk6385looeld@4ax.com...
> On Sun, 10 Oct 2004 09:41:47 -0700, "Ed Price" <edprice@cox.net> wrote:
>
>>
>>"Jock." <real_class_a@yahoo.co.uk> wrote in message
>
>>> To be a Frenchman abroad is to be miserable;
>>> to be an American abroad is to make others miserable.
>>
>>Then it logically follows that we should kill 'em all to end their misery.
>
> No, all Americans to make the world a better and safer place.
>
> The Iraqi resistance has made a fair start anyway ...
>
> --
>
> Jock.

Too bad the last time we had to invade France we didn't leave it as a
democracy. Maybe the next time...........

Ed
wb6wsn

## 321. Re: "antenna" bulge under Bush's jacket

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-11 05:30:52 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <10mk6kftofrsvac@corp.supernews.com>
Source record: 88616

Hal Rosser wrote:
> EVERY president carries his own G5RV for those times after the debates when
> the bands open up to the mideast.
>
> "Bob Miller" <rmiller47@satx.rr.com> wrote in message
> news:k7ldm0djjm95mnd4mm0ct1h90ss9gmh9di@4ax.com...
>
>>See http://www.bradmesser.com/
>>
>>Could that bulge be a radio receiver/antenna of some sort?
>>
>>Bob
>>k5qwg
>>
>
>
>
> ---
> Outgoing mail is certified Virus Free.
> Checked by AVG anti-virus system (http://www.grisoft.com).
> Version: 6.0.772 / Virus Database: 519 - Release Date: 10/1/2004
>
>
Sorry gang but it's nothing so special. What he has on under his suit
jacket is nothing more exotic than a bullet resistant vest. I guess he
needed it for protection from hard hitting questions.
To bad our president, whom ever it is, has to wear such things.

Dave WD9BDZ

## 322. Re: Repairing a tri-band Co-linear 50/144/430 MHz

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-11 06:57:48 UTC
From: Dilligaf <tuskyone@yahoo.com.au>
Message-ID: <416a2ef0$0$637$61c65585@uq-127creek-reader-01.brisbane.pipenetworks.com.au>
Source record: 88617

I have a detailed hand drawing of the BRAINER GST 3 AKA DIAMOND 510N
2mtr/70cm (3 x 5/8s C Load on 2mtrs, 8 x 5/8s C load on 70cm.. if you
want to have a look

rgds

"Brian Reay" <brian.reay@(spamstopper)bigfoot.com> wrote in message
news:2st93uF1nod3mU1@uni-berlin.de...
> My triband co-linear has 'died'. It is a clone of the Comet GP15- the
> 3dBi,
> 6dBi, 8dBi beast about 8ft long.
>
> I've found the fault- the capacitor that connects the inner of the coax to
> a
> tap on the matching coil. It has failed short so I can't measure it and it
> is too cooked to read the value.
>
> Of course, I can have a play with a variable, checking with the antenna
> analyser or even SWR meter, but that will take more time than I can spare
> at
> the moment.
>
> Anyone repaired one of these before and noted down the values of the C's
> in
> there?
>
>
> --
> Brian Reay
> www.g8osn.org.uk
> www.amateurradiotraining.org.uk
> FP#898
>
>

## 323. Re: 18nH Inductor--Thanks!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-11 13:40:20 UTC
From: John Passaneau <jxp16@psu.edu>
Message-ID: <cke2g6$1ope$1@f04n12.cac.psu.edu>
Source record: 88618
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

"Joe" <nuisancewildlife@nospamearthlink.net> wrote in message
news:LaY9d.13496$gs1.5769@newsread2.news.atl.earthlink.net...
>
> "Roy Lewallen" <w7el@eznec.com> wrote in message
> news:10megpq4nfhsc78@corp.supernews.com...
> > Joe wrote:
> > > . . .
> > > I was wondering about a post I read somewhere else a long time ago. Is
> there
> > > such a thing as a paste (that comes in a tube) that can be applied to
> the
> > > terminals of a surface mount device and then when it is stuck to the
> board,
> > > the paste hardens into something like hardened solder? So it is
mounted
> to
> > > the board and soldered with this paste?
> >
> > One-part conductive epoxy fits that description. It's commonly used to
> > mount SMT parts on hybrid circuits. However, the ones I'm familiar with
> > require curing at an elevated temperature (e.g., 150C for an hour). I
> > believe there are also some UV curing conductive epoxies. Conductive
> > epoxy can be used for mounting parts on a PCB, too, but I don't think
> > it's commonly done because it's considerably more expensive than solder.
> > There might be two-part conductive epoxies that cure at room
> > temperature, but I've never used one and am not sure they exist. The
> > one-part epoxies I've used aren't conductive until they're cured -- the
> > tiny conductive (gold or silver) particles in the paste don't contact
> > each other until the curing process causes the epoxy to shrink and pull
> > them together.
> >
> > Then there's solder paste, nearly universally used for mounting parts on
> > PCBs. This also fits your description and can by applied by hand with a
> > syringe, then melted by a number of means -- hot air, IR, soldering
> > iron. It's actually a slurry of flux and tiny spheres of solder. It's
> > not really sticky, but sort of gummy, so some other means (like
> > superglue) has to be used if the parts need to be kept in place when the
> > board is inverted or severely disturbed before the paste is melted.
> >
> > Roy Lewallen, W7EL
>
>
> Thanks Roy,

>
> It sounds like the solder paste is what I heard about. Sounds easier than
> trying to solder such small parts with an iron. I will see if mouser
carries
> it and give it a try.
>
> Joe
> KB1KVI
>
>
Some more comments about solder paste:

Solder paste has a shelf life. Unlike wire solder it will go bad after a
time on the self.
It cost more than regular solder too. Its also hard to use on components
like IC's with close spaced leads. In the commercial world the solder paste
is put on the board before the components are by a silk screen like process,
then the components are placed. The gummy solder paste is used to hold the
parts in place or if the board is to be inverted, to mount parts on both
sides they are glued in place. The problem for the "home" user is putting
the paste only on the pads of fine pitch parts other wise its no better than
wire solder. The method I use is based on a solder tip for my iron made by
Pace. They call it the "mini wave" tip. It has a oval shaped pit that you
fill with solder. It's used by tacking down the IC by hand using 1 or 2
easier to reach leads, then painting the part liberality with liquid flux.
It looks and is messy, then taking this "mini wave tip" with the pool of
solder and letting the ball of solder just touch the leads on the IC,
quickly wipe the solder pool down the length of the row of IC leads.
Capillary action and the flux pulls the solder onto the leads and does a
very good job of soldering. It takes a bit of practice and some solder wick
to remove the solder bridges that can happen until you get the hang of it
but it works and I've done IC's with up to 164 leads this way. For small
parts like resistors and SOTS and the like I use a very fine tip iron and
lots of liquid flux. Cleaning up the flux can be a problem but there are
flux removers that work. Another way is to use water soluble flux. This is a
very active flux and CAN NOT BE LEFT ON THE BOARD. It must be washed off
with water SOON after use. It's used with solder that also has the same type
of flux in. Soap and water and a small brush works well to clean the water
soluble flux off and leaves you with a very nice looking board. All most all
electronic components are not effected by soap and water as this is the
standard commercial process.

--
John Passaneau, W3JXP
Penn State University
w3jxp@arrl.net

## 324. Re: Why do WiFi basestations use two antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-11 13:51:18 UTC
From: "Jock." <real_class_a@yahoo.co.uk>
Message-ID: <dt3lm0p579rbvpkuqjhots9lnoeev6isdc@4ax.com>
Source record: 88619
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,uk.radio.amateur,uk.tech.broadcast

On Sun, 10 Oct 2004 20:29:23 -0700, "Ed Price" <edprice@cox.net> wrote:

>
>"Jock." <real_class_a@yahoo.co.uk> wrote in message
>news:vk0jm0lrurjilqn3v02tialk6385looeld@4ax.com...
>> On Sun, 10 Oct 2004 09:41:47 -0700, "Ed Price" <edprice@cox.net> wrote:
>>
>>>
>>>>"Jock." <real_class_a@yahoo.co.uk> wrote in message
>>
>>>>> To be a Frenchman abroad is to be miserable;
>>>>> to be an American abroad is to make others miserable.
>>>
>>>Then it logically follows that we should kill 'em all to end their misery.
>>
>> No, all Americans to make the world a better and safer place.
>>
>> The Iraqi resistance has made a fair start anyway ...

>Too bad the last time we had to invade France we didn't leave it as a
>democracy. Maybe the next time..........

The sort of democracy you're trying to establish in Iraq, you mean?

--

Jock.

Women should not be enlightened or educated in any
way. They should, in fact, be segregated as they are
the cause of hideous and involuntary erections in
holy men.
- Augustine (attributed: source unknown)

## 325. Re: Repairing a tri-band Co-linear 50/144/430 MHz

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-11 16:30:30 UTC
From: Brian Reay <brian.reay@bigfoot.com>
Message-ID: <2svqo1F1potv1U1@uni-berlin.de>
Source record: 88620

"Dilligaf" <tuskyone(remove)@yahoo.com.au> wrote in message
news:416a2ef0$0$637$61c65585@uq-127creek-reader-01.brisbane.pipenetworks.com.au...
> I have a detailed hand drawing of the BRAINER GST 3 AKA DIAMOND 510N
> 2mtr/70cm (3 x 5/8s C Load on 2mtrs, 8 x 5/8s C load on 70cm.. if
you
> want to have a look
>

Yes please, do you have a scan of it, please.

Remove spamstopper to Email.

73

--
Brian Reay
www.g8osn.org.uk
www.amateurradiotraining.org.uk
FP#898

## 326. Re: Knots in antenna wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-11 18:11:56 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <ckeiic$rbu$1@newshost.mot.com>
Source record: 88521

This also keeps the elephants away. I haven't had any elephant problems
since I started doing this.

--
Steve N, K,9;d, c. i My email has no u's.

"Murray" <me@erewhon.com.au> wrote in message
news:4167e572$0$1281$5a62ac22@per-qv1-newsreader-01.iinet.net.au...
> I have heard of people putting a knot in an
> appliance cord to stop lightning surges getting to
> equipment! :-)
>
> Murray vk4aok
>
> Ken wrote:
> > I have seen commercial wire antennas where the insulated wire is tied
> > to the center insulator with a clinch knot having three turns and then
> > the end of the wire (protruding from the knot) is stripped and
> > connected to the feedline.
> >
> > Does forcing the RF current though a knot at the feedpoint have a
> > significant affect on propagation?
> >
> > Ken KC2JDY
> >
> >
> > Ken
> > (to reply via email
> > remove "zz" from address)

## 327. Re: EH-antenna: sensation or fraude?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-11 18:17:11 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <ckeis8$rcp$1@newshost.mot.com>
Source record: 88522

"Bozidar Pasaric" <bozidar.pasaric@ri.htnet.hr> wrote in message
news:1glg2yn.stvro91n531iyN%bozidar.pasaric@ri.htnet.hr...
> EH-antenna: sensation or fraude?

Neither. Joke.

The three great unatainable holy grails....

Perpetual motion
A new revolutionary type of antenna (much smaller and more efficent and
whatever else you want)
A better way to drive to work.

--
Steve N, K,9;d, c. i My email has no u's.

## 328. Re: "antenna" bulge under Bush's jacket

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-11 18:19:21 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <ckej09$rg7$1@newshost.mot.com>
Source record: 88525

"David G. Nagel" <nagel@core.com> wrote in message
news:10mk6kftofrsvac@corp.supernews.com...
> Hal Rosser wrote:
> > EVERY president carries his own G5RV for those times after the debates
when
> > the bands open up to the mideast.
> >
> > "Bob Miller" <rmiller47@satx.rr.com> wrote in message
> > news:k7ldm0djjm95mnd4mm0ct1h90ss9gmh9di@4ax.com...
> >
> >>See http://www.bradmesser.com/
> >>
> >>Could that bulge be a radio receiver/antenna of some sort?
> >>
> >>Bob
> >>k5qwg
> >>
> >
> Sorry gang but it's nothing so special. What he has on under his suit
> jacket is nothing more exotic than a bullet resistant vest. I guess he
> needed it for protection from hard hitting questions.
> To bad our president, whom ever it is, has to wear such things.
>
> Dave WD9BDZ

I thought it was his personal collection (memento) of chad.

--
Steve N, K,9;d, c. i My email has no u's.

## 329. Re: Printing wire list from EZNEC?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-11 18:21:54 UTC
From: Chuck <wa7rai@raibeam.com>
Message-ID: <MGAad.4123$6P5.1387@okepread02>
Source record: 88524

Tom Donaly <dtdonaly@sbcglobal.net> wrote in message
news:xdmad.1816$6q2.1215@newssvr14.news.prodigy.com...
<... >
Tom,

This isn't about me. It's about a vendor
(Roy) publicly demeaning a customer with
a legitimate issue. I opine an apology to
Yuri is warranted - and was the point of my
post. I am disappointed that you failed to
grasp this...

Chuck, WA7RAI

## 330. Re: Printing wire list from EZNEC?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-11 19:03:21 UTC
From: Chuck <wa7rai@raibeam.com>
Message-ID: <MGAad.4124$6P5.3580@okepread02>
Source record: 88523

J. Mc Laughlin <jcm@power-net.net> wrote in message
news:10mjjc3nl11s379@corp.supernews.com...
> Let me see if I understand.
> A competitor of EZNEC feels a need to draw a red fish in front of one of the
> most successful and effective programs in existence. One wonders why.
>
> Disparagement from a competitor is not appropriate. Especially since
> anyone may and can evaluate the suitability of EZNEC without charge.
>
> Tout the advantages of your work on your site and let the market place
> work.

Mac,

Clearly, you do not understand!

Public disparagement of a customer with
a valid issue is not appropriate under any
circumstances.

And that's the issue I am raising here, as
well as opposing the cavalier attitude that
engenders such disparagement.

With all due respect, you erroneously
concluded I am a software vender, when
in fact, I am here simply as an interested
Ham who has a right to form an opinion -
good or bad.

Chuck, WA7RAI

>
> Mac N8TT
>
> --
> J. Mc Laughlin; Michigan U.S.A.
> Home: JCM@Power-Net.Net
>
>

## 331. Re: EH-antenna: sensation or fraude?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-11 19:24:04 UTC
From: Dave <noone@nowhere.com>
Message-ID: <Z_Wdnau_vLVGQPfcRVn-vw@crocker.com>
Source record: 88526

i found the better way to drive to work... fuzzy slippers from bedroom to
office.

"Steve Nosko" <suteuve.nosukowicuz@moutouroula.com> wrote in message
news:ckeis8$rcp$1@newshost.mot.com...
>
> "Bozidar Pasaric" <bozidar.pasaric@ri.htnet.hr> wrote in message
> news:1glg2yn.stvro91n531iyN%bozidar.pasaric@ri.htnet.hr...
> > EH-antenna: sensation or fraude?
>
> Neither. Joke.
>
> The three great unatainable holy grails....
>
> Perpetual motion
> A new revolutionary type of antenna (much smaller and more efficent and
> whatever else you want)
> A better way to drive to work.
>
> --
> Steve N, K,9;d, c. i My email has no u's.
>
>
>

## 332. Re: Why do WiFi basestations use two antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-11 19:45:43 UTC
From: zzzpk_pkearn_class_a@multi_band_cb_is_here.eircom.es.it.net
Message-ID: <416ae2ba.489023@news1.eircom.net>
Source record: 88527
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,uk.radio.amateur,uk.tech.broadcast

```
On Sun, 10 Oct 2004 21:54:37 +0100, "Nimrod" <nospamfor@me.com> wrote:

>
>"ZZZPK" <zzzpk_pkearn_class_a@multi_band_cb_is_here.eircom.es.it.net> wrote
>in message news:416985b5.2241852@news1.eircom.net...
>> On Sun, 10 Oct 2004 12:12:02 +0100, "Nimrod" <nospamfor@me.com> wrote:
>>
>> >
>> >Still feeling a bit rejected Gareth?
>>
>>
>> how about publishing your own address for a change ?
>>
>Like you do? HoHum maybe there is truth in those Irish jokes.
>
>Top of the morning to you.

oh look...its CHIKROD ! brother(??) of binary chicken.
```

## 333. Re: Printing wire list from EZNEC?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-11 19:52:11 UTC
From: Wes Stewart <n7ws_@_yahoo.com>
Message-ID: <jholm0p08n9pr2j3jmv30n9r8rq3lk1jvt@4ax.com>
Source record: 88528

On Mon, 11 Oct 2004 12:03:21 -0700, "Chuck" <wa7rai@raibeam.com>
wrote:

|
|J. Mc Laughlin <jcm@power-net.net> wrote in message
|news:10mjjc3nl11s379@corp.supernews.com...
|> Let me see if I understand.
|> A competitor of EZNEC feels a need to draw a red fish in front of one of the
|> most successful and effective programs in existence. One wonders why.
|>
|> Disparagement from a competitor is not appropriate. Especially since
|> anyone may and can evaluate the suitability of EZNEC without charge.
|>
|> Tout the advantages of your work on your site and let the market place
|> work.
|
|Mac,
|
|Clearly, you do not understand!
|
|Public disparagement of a customer with
|a valid issue is not appropriate under any
|circumstances.

Are you the "wronged" customer?

|
|And that's the issue I am raising here, as
|well as opposing the cavalier attitude that
|engenders such disparagement.
|
|With all due respect, you erroneously
|concluded I am a software vender, when
|in fact, I am here simply as an interested
|Ham who has a right to form an opinion -
|good or bad.

And a disingenuous one at that. You are an antenna vendor who has made
unsubstantiated claims about your product. When modeling has pointed
out those shortcomings, you claim that some new law of physics makes
it impossible to model your product and people selling those modeling
programs should be disparaged.

You have an agenda that overrides any legitimate criticism of Roy's
product or integrity. Shame on you.

## 334. Re: Printing wire list from EZNEC?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-11 19:53:32 UTC
From: Wes Stewart <n7ws_@_yahoo.com>
Message-ID: <g3plm0p2a6is741btngn9amvd2vl5hng5k@4ax.com>
Source record: 88529

On Mon, 11 Oct 2004 11:21:54 -0700, "Chuck" <wa7rai@raibeam.com>
wrote:

|
|Tom Donaly <dtdonaly@sbcglobal.net> wrote in message
|news:xdmad.1816$6q2.1215@newssvr14.news.prodigy.com...
|<... >
|Tom,
|
|This isn't about me. It's about a vendor
|(Roy) publicly demeaning a customer with
|a legitimate issue. I opine an apology to
|Yuri is warranted - and was the point of my
|post. I am disappointed that you failed to
|grasp this...

If Yuri needs an apology, let him ask for one.

Trust me, most of us here grasp *exactly* what is going on.

## 335. Using AC Adapter in place of Antenna.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-11 20:33:45 UTC
From: endsabruptly@yahoo.com
Message-ID: <83649000.0410111233.7d73341a@posting.google.com>
Source record: 88530

I have search far and wide for this but have come up empty handed. I spent $25+ on a set of rabbit ears for my home set, and could not get good reception no matter what I did. A friend told me to push the end of an AC Adapter to the input of my co-ax cable, and set the plug where ever I need to get the best reception. It worked! Better than the rabbit ears. Has anyone ever heard of this before? Or, are there any other tips and tricks for getting the best reception?

-ends

## 336. Re: EH-antenna: sensation or fraude?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-11 21:03:05 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <muslm0dl3bgj8ltdolbtt99lb85rjj81ut@4ax.com>
Source record: 88531

On Mon, 11 Oct 2004 19:24:04 -0000, "Dave" <noone@nowhere.com> wrote:

>i found the better way to drive to work... fuzzy slippers from bedroom to
>office.

Hi Dave,

I couldn't let that pass without recalling one of Scott Adams' Dilbert
home pages from years ago. He took a picture of his bedroom door from
bed and commented: "This is my commute, when I go through that door I
am at work."

73's
Richard Clark, KB7QHC

## 337. Re: Repairing a tri-band Co-linear 50/144/430 MHz

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-11 21:28:27 UTC
From: Dilligaf <tuskyone@yahoo.com.au>
Message-ID: <416af844$0$257$61c65585@uq-127creek-reader-03.brisbane.pipenetworks.com.au>
Source record: 88532

Brian I have sent it to your yahoo ad, it is 1.2 mb

rgds

3 files EXCELLENT job done by Ross VK4JRO

"Brian Reay" <brian.reay@(spamstopper)bigfoot.com> wrote in message
news:2st93uF1nod3mU1@uni-berlin.de...
> My triband co-linear has 'died'. It is a clone of the Comet GP15- the
> 3dBi,
> 6dBi, 8dBi beast about 8ft long.
>
> I've found the fault- the capacitor that connects the inner of the coax to
> a
> tap on the matching coil. It has failed short so I can't measure it and it
> is too cooked to read the value.
>
> Of course, I can have a play with a variable, checking with the antenna
> analyser or even SWR meter, but that will take more time than I can spare
> at
> the moment.
>
> Anyone repaired one of these before and noted down the values of the C's
> in
> there?
>
>
> --
> Brian Reay
> www.g8osn.org.uk
> www.amateurradiotraining.org.uk
> FP#898
>
>

## 338. Re: EH-antenna: sensation or fraude?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-11 21:31:03 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <rCzmdhcXuvaBFAqc@ifwtech.co.uk>
Source record: 88533

Richard Clark wrote:
>On Mon, 11 Oct 2004 19:24:04 -0000, "Dave" <noone@nowhere.com> wrote:
>
>>i found the better way to drive to work... fuzzy slippers from bedroom to
>>office.
>
>Hi Dave,
>
>I couldn't let that pass without recalling one of Scott Adams' Dilbert
>home pages from years ago. He took a picture of his bedroom door from
>bed and commented: "This is my commute, when I go through that door I
>am at work."

That's the good news here, too.

It's also the bad news.

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

## 339. Re: Using AC Adapter in place of Antenna.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-11 22:24:55 UTC
From: Joel Kolstad <JKolstad71HatesSpam@Yahoo.Com>
Message-ID: <xrudnXG2FPm8lfbcRVn-hQ@comcast.com>
Source record: 88534

"ends" <endsabruptly@yahoo.com> wrote in message
news:83649000.0410111233.7d73341a@posting.google.com...
>I have search far and wide for this but have come up empty handed. I
> spent $25+ on a set of rabbit ears for my home set, and could not get
> good reception no matter what I did. A friend told me to push the end
> of an AC Adapter to the input of my co-ax cable, and set the plug
> where ever I need to get the best reception. It worked! Better than
> the rabbit ears. Has anyone ever heard of this before?

No, although replacing rabbit ears with wire coat hangers (a dying breed!)
and bits of tin foil seem to have been common in times past.

>Or, are there
> any other tips and tricks for getting the best reception?

Sure... get a good outdoor antenna. If you don't like that idea and rabbit
ears aren't doing it for you, though... well... you can try fancier antennas
indoors as well, but if your current approach is working, by all means, keep
using it.

I would suggest _staying away_ from most of the spendier set top antennas
(including amplified ones) at, e.g., Radio Shack. Generally there's
negligible improvement over rabbit ears. (And it's not like you could tell
from looking at the package, either, since they don't include a graph of the
antenna's performance. :-( )

I used to live in Madison, Wisconsin where the downtown Radio Shack store
had a policy that prohibited the return of set top antennas. They said that
many college kids would move in, buy them, find they performed poorly, and
then return them! Sort of an odd policy... (Interestingly, the problem in
Madison was more often that you'd have severe ghosting than a poor signal,
and of course the only cheap fix for that is a directional antenna.)

---Joel Kolstad

## 340. physical/intuitive understanding of RL/RC time constants?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-11 23:11:16 UTC
From: alanh_27@yahoo.com
Message-ID: <1e3670a7.0410111511.47223a3b@posting.google.com>
Source record: 88542
Cross-posted to: sci.electronics.basics,sci.physics,rec.radio.amateur.antenna

when a current just starts flowing into a RL or RC circuit, how does
the voltage "know" that it should be increasing exactly 63% during
each time-constant period?

And whence the number 63%?

## 341. Re: physical/intuitive understanding of RL/RC time constants?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-11 23:18:07 UTC
From: Uncle Al <UncleAl0@hate.spam.net>
Message-ID: <416B14AF.8168025D@hate.spam.net>
Source record: 88543
Cross-posted to: sci.electronics.basics,sci.physics,rec.radio.amateur.antenna

Alan Horowitz wrote:
>
> when a current just starts flowing into a RL or RC circuit, how does
> the voltage "know" that it should be increasing exactly 63% during
> each time-constant period?
>
> And whence the number 63%?

1-(1/e). Crack your textbook.

<http://www.iop.org/EJ/S/UNREG/aS0aOQcupwxj4CNeiM5vaQ/article/-featured=jnl/0143-0807/23/1/304/ej2104.pdf>
"Demonstration of the exponential decay law using beer froth"

Google
"exponential decay" 63 20,500 hits

Uncle Al gotta think of everything.

--
Uncle Al
http://www.mazepath.com/uncleal/
(Toxic URL! Unsafe for children and most mammals)
http://www.mazepath.com/uncleal/qz.pdf

## 342. Half sloper mounting

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-11 23:20:19 UTC
From: Bill Ogden <wogden@attglobal.net>
Message-ID: <TyEad.6121$tn5.3117584@news4.srv.hcvlny.cv.net>
Source record: 88535

I intend to try a half sloper on my TX455 tower (with a tribander on top). I can connect the sloper to the top of the tower (about 55 feet up) or to the top of the middle section (about 38 feet up). Other things being equal, I would prefer the middle section (for maximum separation from an inverted V connected to the top section and at right angles to the sloper). The tower is grounded and will have a reasonable number of radials (when I can figure out how to best attach them).

I know that half slopers have been debated here and many other places and provide considerable confusion for most of us. I think I understand that the tower provides most of the radiation and the sloper wire is more a matching device than a radiation device. Should I expect significant improvement with a tower-top connection instead of a middle section connection? Would it make much difference? Are these things so unpredictable that experimentation is the only answer?

Bill
W2WO

## 343. Re: Printing wire list from EZNEC?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-11 23:21:01 UTC
From: Chuck <wa7rai@raibeam.com>
Message-ID: <f3Fad.4130$6P5.3873@okepread02>
Source record: 88538

```
Wes Stewart <n7ws_@_yahoo.com> wrote in message
news:g3plm0p2a6is741btngn9amvd2vl5hng5k@4ax.com...
> On Mon, 11 Oct 2004 11:21:54 -0700, "Chuck" <wa7rai@raibeam.com>
> wrote:
>
> |
> |Tom Donaly <dtdonaly@sbcglobal.net> wrote in message
> |news:xdmad.1816$6q2.1215@newssvr14.news.prodigy.com...
> |<... >
> |Tom,
> |
> |This isn't about me. It's about a vendor
> |(Roy) publicly demeaning a customer with
> |a legitimate issue. I opine an apology to
> |Yuri is warranted - and was the point of my
> |post. I am disappointed that you failed to
> |grasp this...
>
> If Yuri needs an apology, let him ask for one.
>
> Trust me, most of us here grasp *exactly* what is going on.
>

Self delusion must one of your strong
points, eh?
```

## 344. Re: physical/intuitive understanding of RL/RC time constants?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-11 23:24:47 UTC
From: John T Lowry <jlowry100@earthlink.net>
Message-ID: <3DEad.524$gy1.491@newsread1.news.pas.earthlink.net>
Source record: 88544
Cross-posted to: sci.electronics.basics,sci.physics,rec.radio.amateur.antenna

"Alan Horowitz" <alanh_27@yahoo.com> wrote in message
news:1e3670a7.0410111511.47223a3b@posting.google.com...
> when a current just starts flowing into a RL or RC circuit, how does
> the voltage "know" that it should be increasing exactly 63% during
> each time-constant period?

Definition of time-constant period.

John Lowry
Flight Physics

>
> And whence the number 63%?

# 345. Re: Self made antenna for CB

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-11 23:43:02 UTC
From: Dan/W4NTI <w4nti@get>
Message-ID: <aUEad.696$NX5.555@newsread3.news.atl.earthlink.net>
Source record: 88536

I don't know actually. I built it up for a local good buddy type, and he never came back.

Dan/W4NTI

"Johann H&#65533;chtl" <johann.hoechtl@myrealbox.com> wrote in message news:4168dcd3$0$31896$91cee783@newsreader02.highway.telekom.at...
> Do you yield good results with this kind of antenna? Yes? Might be the
> trolls ...
>
> Dan/W4NTI wrote:
> > Get yourself a empty can of coffee. Place a light bulb in it. Hook the
> > coax to it. Remember the shield goes to the negative of the bulb.
> >
> > Seal the can with lead solder.
> > Bury 15 feet underground.
> >
> > Enjoy.
> >
> > Dan/W4NTI
> >
> > "Johann H&#65533;chtl" <johann.hoechtl@myrealbox.com> wrote in message
> > news:4167b086$0$20466$91cee783@newsreader02.highway.telekom.at...
> >
> >>Hello,
> >>
> >>i would like to make my own antenna for CB radio, mostly because i am
> >>interessted in the technics involved, not strictly because of saving
> >>some money.
> >>
> >>I was googling a while but unfortunately the information i gathered was
> >>rather unsatisfactory. Quite some theory but lack of practical
> >
> > descriptions.
> >
> >>
> >>Are there good links to pages how to make it's own antenna?
> >>
> >>
> >>I am interessted in an antenna which gives me a good trade of between
> >>gain, ease of operation and ease of manufacturing.
> >>
> >>I think now that either a "long wire antenna" or a dipole would be the
> >>best for my purpose. I would place both vertically on a fishing rod.

> >>A horizontal adjustment would yield better results in DX but not so good
> >>results for near communication, right?
> >>
> >>But i wonder how i can make a balun on my own. I guess i need a 1:1
> >>balun for the dipole (i use rg58 to the radio) or a 1:4? balun for the
> >>long wire.
> >>
> >>Would the two antenna types be a good choice?
> >>
> >>Any help would be appreciated.
> >>
> >>Greetings,
> >>Johann
> >
> >
> >

## 346. Re: Self made antenna for CB

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-11 23:43:29 UTC
From: Dan/W4NTI <w4nti@get>
Message-ID: <BUEad.697$NX5.667@newsread3.news.atl.earthlink.net>
Source record: 88537

No Bruce, this was my reference antenna.

Dan/W4NTI

"WA8ULX" <wa8ulx@aol.com> wrote in message
news:20041010104826.02938.00001772@mb-m11.aol.com...
> >Dan/W4NTI wrote:
> >> Get yourself a empty can of coffee. Place a light bulb in it. Hook
the
> >> coax to it. Remember the shield goes to the negative of the bulb.
> >>
> >> Seal the can with lead solder.
> >> Bury 15 feet underground.
> >>
> >> Enjoy.
>
> Dan I think you forgot to mention it has 20DB GAIN.

## 347. Re: Printing wire list from EZNEC?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-12 00:01:12 UTC
From: Chuck <wa7rai@raibeam.com>
Message-ID: <g3Fad.4131$6P5.1626@okepread02>
Source record: 88539

```
Wes Stewart <n7ws_@_yahoo.com> wrote in message
news:jholm0p08n9pr2j3jmv30n9r8rq3lk1jvt@4ax.com...
> On Mon, 11 Oct 2004 12:03:21 -0700, "Chuck" <wa7rai@raibeam.com>
> wrote:
>
> |
> |J. Mc Laughlin <jcm@power-net.net> wrote in message
> |news:10mjjc3nl11s379@corp.supernews.com...
> |> Let me see if I understand.
> |> A competitor of EZNEC feels a need to draw a red fish in front of one of the
> |> most successful and effective programs in existence. One wonders why.
> |>
> |> Disparagement from a competitor is not appropriate. Especially since
> |> anyone may and can evaluate the suitability of EZNEC without charge.
> |>
> |> Tout the advantages of your work on your site and let the market place
> |> work.
> |
> |Mac,
> |
> |Clearly, you do not understand!
> |
> |Public disparagement of a customer with
> |a valid issue is not appropriate under any
> |circumstances.
>
> Are you the "wronged" customer?

Are you Roy's official toady?

>
> |
> |And that's the issue I am raising here, as
> |well as opposing the cavalier attitude that
> |engenders such disparagement.
> |
> |With all due respect, you erroneously
> |concluded I am a software vender, when
> |in fact, I am here simply as an interested
> |Ham who has a right to form an opinion -
> |good or bad.
>
>
> And a disingenuous one at that. You are an antenna vendor who has made
> unsubstantiated claims about your product.
```

Wes,

Apparently, when you don't like a message
you attempt to malign the messenger...
where is the intellectual honesty in that?

In any case, I am not in business as of late,
as my wife is dying of cancer and needs all
my attention. And since I am not in business,
I can now express my views here without
being accused of commercialism.

Regarding my claims; you cannot provide
one substantiated instance where my
antennas did not perform as stated. Where
are the complaints? Where are the
dissatisfied users. One would think after TEN
years there would have been some indication
of a fraud if one did exist.

Or perhaps you simply imagine that all those
good folks who find my antenna design a
superior one, are merely deluded idiots, as
Brian Beasley once accused...

> When modeling has pointed out those shortcomings,
> you claim that some new law of physics makes
> it impossible to model your product and people selling those modeling
> programs should be disparaged.

Nonsense! I have made the assertion - and
I continue to do so - that minninec and NEC
based programs cannot model my design
simply from their inability to simulate a
virtual bi-directional coaxial phasing/delay line.
Furthermore, I hold the opinion that there are
no assumptions in those programs that would
recognize the induced energy that would be
present at the reverse input of such a line.

Do you have definitive proof to the contrary?

Let me suggest, that until you have something
of substance to offer in this regard, you should
refrain from making false accusations.

>
> You have an agenda that overrides any legitimate criticism of Roy's
> product or integrity. Shame on you.
>

<lol>... my only 'agenda' here is to point out
Roy's distain towards his customers who
cannot work through his inconsistencies...

Though, apparently, you have an agenda of sorts, otherwise you wouldn't be posting this garbage! Shame in you!

Chuck, WA7RAI

## 348. Re: physical/intuitive understanding of RL/RC time constants?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-12 01:02:53 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <03bmm0hkr54at5fb7r962vq1uihgsd5b5l@4ax.com>
Source record: 88546
Cross-posted to: sci.electronics.basics,sci.physics,rec.radio.amateur.antenna

On Mon, 11 Oct 2004 16:18:07 -0700, Uncle Al <UncleAl0@hate.spam.net>
wrote:

><http://www.iop.org/EJ/S/UNREG/aS0aOQcupwxj4CNeiM5vaQ/article/-featured=jnl/0143-0807/23/1/304/ej2104.pdf>
> "Demonstration of the exponential decay law using beer froth"

Hi Al,

Good link. Here is one that is Tau intensive from my own work:
http://www.cybernalysis.com/tau/index.htm

73's
Richard Clark, KB7QHC

## 349. Re: physical/intuitive understanding of RL/RC time constants?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-12 01:11:49 UTC
From: John Popelish <jpopelish@rica.net>
Message-ID: <416B2F55.69DC4E18@rica.net>
Source record: 88547
Cross-posted to: sci.electronics.basics,sci.physics,rec.radio.amateur.antenna

Alan Horowitz wrote:
>
> when a current just starts flowing into a RL or RC circuit, how does
> the voltage "know" that it should be increasing exactly 63% during
> each time-constant period?
>
> And whence the number 63%?

This all goes back to the solution of the differential equation for
the RC or RL system. e is a natural constant that has some very sweet
properties in many applications of mathematics, and simplifying
differential equations is one of them. Read through this tutorial and
see how the rate constant k in this tutorial is an example of a time
constant.
http://www.ugrad.math.ubc.ca/coursedoc/math100/notes/diffeqs/intro.html
--
John Popelish

## 350. Re: cleaning antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-12 01:40:59 UTC
From: Tom Ring <news0000@taring.org>
Message-ID: <416b362b$0$91007$39cecf19@news.twtelecom.net>
Source record: 88540

CW wrote:
> Try Mother's Mag and Aluminum polish. When I was in basic training, there
> was a guy that brought a can of Mother's with him. His stuff looked so much
> better than the rest (everyone else was using Brasso) that they told him he
> couldn't use it unless he supplied it to everyone. Yes, it's that good.
>

Thanks, I'll give it a try.

tom
K0TAR

## 351. Re: physical/intuitive understanding of RL/RC time constants?

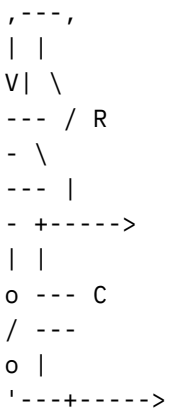
Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-12 02:05:40 UTC
From: Jonathan Kirwan <jkirwan@easystreet.com>
Message-ID: <kpemm0d5379mui0buc2v8v78g3d806gq6l@4ax.com>
Source record: 88548
Cross-posted to: sci.electronics.basics,sci.physics,rec.radio.amateur.antenna

On 11 Oct 2004 16:11:16 -0700, alanh_27@yahoo.com (Alan Horowitz) wrote:

>when a current just starts flowing into a RL or RC circuit, how does
>the voltage "know" that it should be increasing exactly 63% during
>each time-constant period?
>
>And whence the number 63%?

I haven't had a chance to read other responses, but here's mine:

Take the case of an RC:



Assume C is discharged and V has just been applied by closing the switch...

The current through R is based on V, less the voltage on C (which counters V), so:

I(R) = ( V - V(C) ) / R

The above is a function of time, because V(C) is a function of time. So, what's V(C)? Well, that needs to be arrived at more slowly.

First, we know that this is true:

Q = C*V

Well, actually, that's an average statement. More exactly, it's:

dQ = C * dV

In other words, the instantaneous change in Coulombs is equal to the capacitance times the instantaneous change in voltage. Both sides can now be divided by an instant of time to give:

dQ / dt = C * dV / dt

Since dQ/dt is just current (I), for the above capacitor this becomes:

I(C) = C * dV(C) / dt

So how does this help? Well, we know that the current from R must accumulate on C. So, we know that:

I(C) = I(R) = ( V - V(C) ) / R

so, combining, we get:

C * dV(C) / dt = ( V - V(C) ) / R

Rearrangement of this gives:

dV(C) / dt + V(C) / (R*C) = V / ( R*C )

Which is the standard form for ordinary differential equations of this type.

The standard form with general terms looks like: dy/dx + P(x)*y = Q(x). In our case, though, y = V(C), x = t, P(x) = 1 / (R*C), and Q(x) = V / (R*C).

The solution to this includes multiplying by what is called "the integrating factor", which is:

u(x) = e^(integral (P(x)*dx)) = e^(integral (dt/RC)) = e^(t/(R*C))

(This is a VERY POWERFUL method to learn, by the way, and it is probably covered in the first few chapters of any ordinary differential equations book.) So, going back to look at the general form and multiplying both sides:

u(x)*dy/dx + u(x)*P(x)*y = u(x)*Q(x)

But the left hand side is just d(u(x)*y)/dx, so:

d(u(x)*y)/dx = u(x)*Q(x)

or,

d(u(x)*y) = u(x)*Q(x) * dx

In our case, this means:

d( e^(t/(R*C)) * V(C) ) = V / ( R*C ) * e^(t/(R*C)) * dt

Taking the integral of both sides, we are left with:

e^(t/(R*C)) * V(C) = integral [ V / ( R*C ) * e^(t/(R*C)) * dt ]
= V / ( R*C ) * integral [ e^(t/(R*C)) * dt ]

setting z = t/(R*C), we have dz = dt/(R*C) or dt = R*C*dz, thus:

e^(t/(R*C)) * V(C) = V / ( R*C ) * R*C * [e^(t/(R*C)) + k1]
= V * [e^(t/(R*C)) + k1]
= V * e^(t/(R*C)) + V * k1
V(C) = V + V * k1 / e^(t/(R*C))
= V + V * k1 * e^(-t/(R*C))
= V * [ 1 + k1*e^(-t/(R*C)) ]

From initial conditions, where V(C) = 0V at t=0, we know that k1=-1, so:

V(C) = V * [ 1 - e^(-t/(R*C)) ]

Time constants are usually taken to be:

e^(-t/k)

with (k) being the constant. In our V(C) case, this means that k=R*C. So
that's the basic constant and it's in units of seconds.

So, what's the voltage after one such constant of time? Well:

V(C) = V * [ 1 - e^(R*C/(R*C)) ] = V * [ 1 - 1/e ] = V * .63212

Ah! There's that 63% figure. Actually, more like 63.212%.

Two time constants would be:

1 - 1/e^2 = .864665

and so on....

Oh... and there are other methods you can use to solve the simple RC formula,
but the method I chose is a very general and powerful one worth learning well.

Jon

## 352. Re: Printing wire list from EZNEC?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-12 02:30:11 UTC
From: Wes Stewart <n7ws_@_yahoo.com>
Message-ID: <o6gmm0985h1pggen34ooml73je61eus283@4ax.com>
Source record: 88541

On Mon, 11 Oct 2004 17:01:12 -0700, "Chuck" <wa7rai@raibeam.com>
writes:
[snip]
|
|Apparently, when you don't like a message
|you attempt to malign the messenger...

and then goes on to malign me.

## 353. Re: Knots in antenna wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-12 02:41:27 UTC
From: Tom Ring <news0000@taring.org>
Message-ID: <416b4457$0$74192$39cecf19@news.twtelecom.net>
Source record: 88549

Steve Nosko wrote:

> This also keeps the elephants away. I haven't had any elephant problems
> since I started doing this.
>

I use it to keep the wolverines away, and it is 100% successful so far.

tom
K0TAR

## 354. Re: cleaning antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-12 03:24:04 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0410111924.3f53fcab@posting.google.com>
Source record: 88550

"aunwin@insightbb.com" <aunwin@insightbb.com@insightbb.com> wrote in message
news:<%OI9d.331893$mD.174063@attbi_s02>...

> "Roy Lewallen" <w7el@eznec.com> wrote in message
> news:10mdm3j5o02733a@corp.supernews.com...
> > Keyboard In The Wilderness wrote:
> >
> > > Advice from several gurus as garnered from the news groups over time.
> > >
> > > For cleaning aluminum tubing, an antenna guru recommends the use of #0
> steel
> > > wool, along with dishwashing detergent. . .
> >
> > I've read that using steel wool will result in tiny pieces of the steel
> > being left embedded in the aluminum, resulting in long term pitting and
> > corrosion. Is that an old wives' tale, then?
> >
> > Roy Lewallen, W7EL

> No ! It definitely cleans and shines the anternna so objective is achieved.
> Regarding possible destructive action , can you point to a study
> that shows measurable losses with respect to exposure time ?
> I am assuming that you are refering to cases where a sizeable portion of the
> aluminum surface is removed and replaced by steel which somehow
> prevent skin depth from attaining its original depth. ( not what the normal
> operator had in mind)
> But if you are refering to corrosion of the embedded steel particles
> 'tiny bits' that would be a nye impossible loss to measure and thus would
> take it's place as "an old wives tale"
> ( Unless you have a study that proves otherwise
> such as a .01" lump of steel embedded in a 1" diameter tube
> provides a measureable loss )
>
> Art
>
It's not loss. It's embedded bits of steel later turning to rust. I
could even see the possibility of the particles acting as diodes of
sorts, and could cause noise. Even if thats not true, embedded rust
particles on aluminum elements is not what I would call desired. Could
leave red streaks. Myself, I use the scotchbright pads, "usually
green", and whatever soap is around. MK

## 355. Re: Printing wire list from EZNEC?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-12 03:30:22 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <idlad.2245$6q2.471@newssvr14.news.prodigy.com>
Source record: 88551

```
Chuck wrote:
> Wes Stewart <n7ws_@_yahoo.com> wrote in message
> news:jholm0p08n9pr2j3jmv30n9r8rq3lk1jvt@4ax.com...
>
>>On Mon, 11 Oct 2004 12:03:21 -0700, "Chuck" <wa7rai@raibeam.com>
>>wrote:
>>
>>|
>>|J. Mc Laughlin <jcm@power-net.net> wrote in message
>>|news:10mjjc3nl11s379@corp.supernews.com...
>>|> Let me see if I understand.
>>|> A competitor of EZNEC feels a need to draw a red fish in front of one of the
>>|> most successful and effective programs in existence. One wonders why.
>>|>
>>|> Disparagement from a competitor is not appropriate. Especially since
>>|> anyone may and can evaluate the suitability of EZNEC without charge.
>>|>
>>|> Tout the advantages of your work on your site and let the market place
>>|> work.
>>|
>>|Mac,
>>|
>>|Clearly, you do not understand!
>>|
>>|Public disparagement of a customer with
>>|a valid issue is not appropriate under any
>>|circumstances.
>>
>>Are you the "wronged" customer?
>
>
> Are you Roy's official toady?
>
>
>>|
>>|And that's the issue I am raising here, as
>>|well as opposing the cavalier attitude that
>>|engenders such disparagement.
>>|
>>|With all due respect, you erroneously
>>|concluded I am a software vender, when
>>|in fact, I am here simply as an interested
>>|Ham who has a right to form an opinion -
>>|good or bad.
```

>>
>>
>>And a disingenuous one at that. You are an antenna vendor who has made
>>unsubstantiated claims about your product.
>
>
> Wes,
>
> Apparently, when you don't like a message
> you attempt to malign the messenger...
> where is the intellectual honesty in that?
>
> In any case, I am not in business as of late,
> as my wife is dying of cancer and needs all
> my attention. And since I am not in business,
> I can now express my views here without
> being accused of commercialism.
>

That would be a lot easier to believe if you
stopped advertising on your web site.

> Regarding my claims; you cannot provide
> one substantiated instance where my
> antennas did not perform as stated. Where
> are the complaints? Where are the
> dissatisfied users. One would think after TEN
> years there would have been some indication
> of a fraud if one did exist.

I just visited your web site. Lots of assertions,
little in the way of proof.

>
> Or perhaps you simply imagine that all those
> good folks who find my antenna design a
> superior one, are merely deluded idiots, as
> Brian Beasley once accused...
>
>
>>When modeling has pointed out those shortcomings,
>>you claim that some new law of physics makes
>>it impossible to model your product and people selling those modeling
>>programs should be disparaged.
>
>
> Nonsense! I have made the assertion - and
> I continue to do so - that minninec and NEC
> based programs cannot model my design
> simply from their inability to simulate a
> virtual bi-directional coaxial phasing/delay line.

A "virtual bi-directional coaxial phasing/delay line."
That's a good one. Very inventive.

> Furthermore, I hold the opinion that there are
> no assumptions in those programs that would
> recognize the induced energy that would be
> present at the reverse input of such a line.
>
> Do you have definitive proof to the contrary?
>
> Let me suggest, that until you have something
> of substance to offer in this regard, you should
> refrain from making false accusations.
>
>
>>You have an agenda that overrides any legitimate criticism of Roy's
>>product or integrity. Shame on you.
>>
>
>
> <lol>... my only 'agenda' here is to point out
> Roy's distain towards his customers who
> cannot work through his inconsistencies...
>
> Though, apparently, you have an agenda of
> sorts, otherwise you wouldn't be posting
> this garbage! Shame in you!
>
> Chuck, WA7RAI
>
>

Hi Chuck,
just looking at your web site, it's hard for
the ordinary ham to distinguish it from that of any other antenna shark.
Do you have any engineering assessments by any qualified, disinterested
, antenna testing facility? (Shootouts don't qualify.)
73,
Tom Donaly, KA6RUH

## 356. balcony railing mount for DBS dish

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-12 03:44:46 UTC
From: 3726414@spamhole.com
Message-ID: <6eac4d8d.0410111944.5d5b7f96@posting.google.com>
Source record: 88552
Cross-posted to: rec.radio.amateur.antenna,rec.video.satellite.dbs,rec.video.satellite.tvro,alt.dss.hack,alt.dbs.echostar.hack

Hello

I am trying to come up with a "balcony railing mount" for use with a Ku-band dish plus dish mover. I have searched google and have not found any online dealers which sell such a mount.

My apartment is on the 11th floor with a railing on the outside patio, approx circumference is 12 inches (around).

My apartment landlord is being "difficult" with roof access and wants me to subscribe to the apartment complex's own dish system.

I simply want FTA programming.

If anyone knows where I can find a balcony railing mount (or similar) please let me know

thanks

## 357. Re: cleaning antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-12 05:11:23 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10mmps1itd1p88f@corp.supernews.com>
Source record: 88554

Prompted by the lack of a definitive response, I did a little web research. A wide variety of industries (e.g., cookware and window frame makers) routinely recommend cleaning aluminum with steel wool. Notably, however, the FAA seems to prohibit it on aircraft. One newsgroup poster (an EI, which would be a bad environment for corrosion) said he had direct -- bad -- experience, and would never use steel wool on aluminum again. So it looks to me like the jury is still out. Maybe it's ok if you live in an environment that's pretty benign with respect to corrosion, but a bad idea if you live close to the ocean. I don't claim to know, and I've never felt the need to clean outside aluminum, so it's just curiosity to me.

Roy Lewallen, W7EL

## 358. Re: balcony railing mount for DBS dish

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-12 05:32:31 UTC
From: Brian <b.gohl@comcast.net>
Message-ID: <u4ednbB4N9oG8PbcRVn-sQ@comcast.com>
Source record: 88553
Cross-posted to: rec.radio.amateur.antenna,rec.video.satellite.dbs,rec.video.satellite.tvro,alt.dss.hack,alt.dbs.echostar.hack

Necessity is the mother of invention. Through the years I have made great friends with metal fabricators to develop "one-off" mounts. Sketch and measure the area for mounting and you will be surprised at the innovative methods fabricators will come up with for attaching your system!

Email a digital photo of the area with your city and the direction the photo is taken and I could make a few suggestions.

Brian Gohl
briangohl@adventistsat.com
http://www.adventistsat.com

"Bill" <3726414@spamhole.com> wrote in message
news:6eac4d8d.0410111944.5d5b7f96@posting.google.com...
> Hello
>
> I am trying to come up with a "balcony railing mount" for use with a
> Ku-band dish plus dish mover. I have searched google and have not
> found any online dealers which sell such a mount.
>
> My apartment is on the 11th floor with a railing on the outside patio,
> approx circumference is 12 inches (around).
>
> My apartment landlord is being "difficult" with roof access and wants
> me to subscribe to the apartment complex's own dish system.
>
> I simply want FTA programming.
>
> If anyone knows where I can find a balcony railing mount (or similar)
> please let me know
>
> thanks

## 359. Re: physical/intuitive understanding of RL/RC time constants?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-12 05:49:54 UTC
From: Robert Monsen <rcsurname@comcast.net>
Message-ID: <6gKad.230613$D%.163996@attbi_s51>
Source record: 88556
Cross-posted to: sci.electronics.basics,sci.physics,rec.radio.amateur.antenna

Alan Horowitz wrote:
> when a current just starts flowing into a RL or RC circuit, how does
> the voltage "know" that it should be increasing exactly 63% during
> each time-constant period?
>
> And whence the number 63%?

Suppose you are trying to fill up a box with balls. However, for some strange reason, you've decided that each time you throw in balls, you'll throw in 1/2 of the balls that will fit in the remaining space.

At the first second, you have 1/2 the balls. Next second, you'll have that plus 1/2 of the remaining space, which is 1/2 + 1/4 = 3/4. The third second, you'll have that plus 1/2 the remaining space, ie, 1/2 + 1/4 + 1/8 = 7/8...

So, the number of balls at any time t will be:

B(t) = 1 - (1/2)^t

Thus, after 3 seconds, there will be B(3) = 1 - (1/2)^3 = 1 - 1/8 = 7/8, just like above.

Now, apply that same reasoning, only instead of using the ratio 1/2, use the ratio 1/e (since we are applying arbitrary rules)

Then

B(t) = 1 - (1/e)^t

After the first second, you'll have

B(1) = 1 - (1/e)^1 = 1 - 1/e = 0.632 (that is, 63%)

Strange coincidence, isn't it? It happens because when you are charging a capacitor through a resistor, you are throwing balls, in the form of charges, into a box (the capacitor), and the number of charges you throw at any given time (the current) depends on how many charges are already on the capacitor (the voltage).

Each step of the formula above is one time constant, RC. By dividing out the RC, you can get the answer given seconds, ie

B(t) = 1 - (1/e)^(t/RC) = 1 - e^(-t/RC)

Where B is the percentage 'filled' the capacitor is (ie, what percentage it is of the input voltage).

Why is 1/e used instead of 1/2? That has to do with the fact that we must have a continuous solution, not a solution based on ratios of existing values; the rate of change of the current (ie, how many balls we throw in per unit time) is proportional to the voltage remaining, which is continuously changing. Using 1/e instead of 1/2 allows us to generalize to this, in the same way as the compound interest formula allows us to compute 'continuously compounding' interest.

--
Regards,
Robert Monsen

"Your Highness, I have no need of this hypothesis."
- Pierre Laplace (1749-1827), to Napoleon,
on why his works on celestial mechanics make no mention of God.

## 360. look how these guys put up a cb ant look at these picture

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-12 05:51:11 UTC
From: jcooper874@webtv.net
Message-ID: <4055-416B70CF-29@storefull-3273.bay.webtv.net>
Source record: 88555

www.wdentertainment.net/cb/QNAnt.htm click on link

## 361. Re: physical/intuitive understanding of RL/RC time constants?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-12 06:23:31 UTC
From: Ban <bansuri@web.de>
Message-ID: <DLKad.23740$b5.1202213@news3.tin.it>
Source record: 88558
Cross-posted to: sci.electronics.basics,sci.physics,rec.radio.amateur.antenna

Alan Horowitz wrote:
> when a current just starts flowing into a RL or RC circuit, how does
> the voltage "know" that it should be increasing exactly 63% during
> each time-constant period?
>
> And whence the number 63%?

Let's try another way. You can actually experiment yourself.

Take a 1000uF electrolytic cap and charge it up to +5V, then disconnect the power supply. Put your voltmeter on the cap terminals and read +5V. Now take a 10k resistor and put it across the terminals as well. The cap discharges slowly. In the first moment the discharge current was 5V/10k = 0.5mA. With this current the cap would be discharged in 10s, this is the time constant "tau" = RC

But since the voltage is dropping also the discharge current drops. Now you can use a stopwatch and read the voltage after 10s and you find it to be 1.84V, which is (1-0.624)5V. So this is where your 63% come from. Since we are discharging, the value is 37% of the initial voltage. You can also note down the values for 20s, 30s etc. until your meter has no more resolution and find the corresponding values for multiple time constants.
BTW you do not need to do this experiment yourself but use a simulator or solve the equations others have already written in their answers.

--
ciao Ban
Bordighera, Italy

## 362. Re: EH-antenna: sensation or fraude?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-12 06:38:05 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <hZKad.7463$5b1.5235@newssvr17.news.prodigy.com>
Source record: 88501

Bozidar,
Established physics is "old primitive Earthian". The 'EH'
antenna is classified as "concave futuristic Earthian". Apply
that label with an erasable marker...
'Doc

PS - Erecting an 'EH' antenna over your garden will allow
you to skip fertilizing for at least two years. As an
added bonus, it cures male pattern baldness...

## 363. Re: balcony railing mount for DBS dish

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-12 07:11:12 UTC
From: Zoyburg <rats@attib.com>
Message-ID: <ksLad.457975$8_6.120591@attbi_s04>
Source record: 88560
Cross-posted to: rec.radio.amateur.antenna,rec.video.satellite.dbs,rec.video.satellite.tvro,alt.dss.hack,alt.dbs.echostar.hack

Bill wrote:

> Hello
>
> I am trying to come up with a "balcony railing mount" for use with a
> Ku-band dish plus dish mover. I have searched google and have not
> found any online dealers which sell such a mount.
>
> My apartment is on the 11th floor with a railing on the outside patio,
> approx circumference is 12 inches (around).
>
> My apartment landlord is being "difficult" with roof access and wants
> me to subscribe to the apartment complex's own dish system.
>
> I simply want FTA programming.
>
> If anyone knows where I can find a balcony railing mount (or similar)
> please let me know
>
> thanks

All you need is a 5 gallon bucket, a bag of cement, and a few feet
of appropriate diameter fence post. Just be sure to molest the bottom
of the post such that it's not round anymore before you stick it in
the cement.

## 364. Re: balcony railing mount for DBS dish

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-12 08:46:04 UTC
From: Timothy Daniels <TDaniels@NoSpamDot.com>
Message-ID: <nL-dnet8lcpbBPbcRVn-gw@comcast.com>
Source record: 88557
Cross-posted to: rec.radio.amateur.antenna,rec.video.satellite.dbs,rec.video.satellite.tvro,alt.dss.hack,alt.dbs.echostar.hack

```
"Fat Bastard" wrote:
>
> "Timothy Daniels" wrote:
>> "Bill" wrote:
>> > I am trying to come up with a "balcony railing mount" for use with a
>> > Ku-band dish plus dish mover. I have searched google and have not
>> > found any online dealers which sell such a mount.
>> >
>> > My apartment is on the 11th floor with a railing on the outside patio,
>> > approx circumference is 12 inches (around).
>> >
>> > My apartment landlord is being "difficult" with roof access and wants
>> > me to subscribe to the apartment complex's own dish system.
>> >
>> > I simply want FTA programming.
>> >
>> > If anyone knows where I can find a balcony railing mount (or similar)
>> > please let me know
>> >
>> > thanks
>>
>>
>> If your landlord wants to be difficult, he can prohibit the railing
>> mounts - legally (assuming you're in the U.S.). The railing is
>> not considered part of the unit or the Exclusive Use area.
>> It is part of the exterior of the building. Even condo CC&Rs
>> that I have seen explicitly state that balcony railings are NOT
>> part of the unit owned or rented. Furthermore, he can prevent
>> it by safety considerations by claiming that it presents a
>> hazard of falling off onto people below. Since approval of a
>> railing mount may pose a liability risk for the building owner,
>> he may bring up the heavy legal artillery against you. If I were
>> in your position, I'd make a cheap tripod and mount the feet
>> in cement blocks (just pour quickset cement into a plastic
>> bucket) on the balcony, and then mount the dish to the tripod.
>
> Actually, if he is on the 11th floor, and the balcony is ONLY
> part of HIS particular unit, and is not also attached to the
> public right of way (walkway, another attached balcony, etc.),
> then it is HIS exclusive area, and he can mount to it all he
> wants, and they can't say squat.
```

Actually, being on the 11th floor means squat. The window sill is on the 11th floor, too, but it's part of the outside of the building and you're not legally free to attach a dish to the window sill. In reality, the railing is legally an exterior part of the building like an exterior wall or the roof. What's on the inside of the railing is balcony, and the railing begins the outside of the building.

*TimDaniels*

## 365. Re: physical/intuitive understanding of RL/RC time constants?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-12 09:10:36 UTC
From: john jardine <john@jjdesigns.fsnet.co.uk>
Message-ID: <ckf9u5$one$1@news8.svr.pol.co.uk>
Source record: 88545
Cross-posted to: sci.electronics.basics,sci.physics,rec.radio.amateur.antenna

"Alan Horowitz" <alanh_27@yahoo.com> wrote in message
news:1e3670a7.0410111511.47223a3b@posting.google.com...
> when a current just starts flowing into a RL or RC circuit, how does
> the voltage "know" that it should be increasing exactly 63% during
> each time-constant period?
>
> And whence the number 63%?

The voltage knows nothing about how it's "supposed" to behave. It just does its thing without a care in the world.
The thing it does though, will always result in exactly the same voltage shape, because with a fixed R and C and supply voltage it can do no other.
As the C voltage grows, the voltage across the R must drop. If the R voltage drops then the charging current must drop. If the charging current drops, then the C voltage must rise at a slower rate, ... and so on and so on ...
Everything slows down more and more as time goes on. A bit of thought and you'll notice that the C can never actually charge exactly to the supply voltage.
As this RL RC (dis)charging process must always result in this particular shape or curve and this quite 'natural' curve turns up across all branches of science, engineering and finance, it wasn't long before the mathematicians found they could usefully model, or describe the curve accurately, using an equation based on the 2.718 "e" value used for working out 'natural' logarithms.
Hence the maths numbers and formulae that are taught are a good descriptive model or analogue of what's happening in the circuit but have nothing to do with the actual circuit workings.
Be wary when relying purely on maths models. They confer 'expertise' into how something works, without offering 'understanding' of how something works. The difference can be crucial.
regards
john

## 366. NOT ifwtech.com

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-12 12:57:25 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <czL7RPQ1S9aBFAO0@ifwtech.co.uk>
Source record: 88559
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

Sorry for the bandwidth, but...

Please note: my former ifwtech.com domain is NOT under my control any more.

I lost that domain name 3 years ago, due to my ISP's careless failure to renew it. Fortunately I also had the ifwtech.CO.UK name registered, and have been using that ever since.

What's new - and nasty - is that ifwtech.com has now fallen into the hands of a company that has reactivated it as a gateway to popup ads, premium-rate phone services and other dubious activities. The really nasty thing is that this new site uses keywords like "yagis" and "power amplifiers", so it can easily be mistaken for something of mine. It most definitely isn't.

Please check, in case you still have any old web links pointing to ifwtech.com. Now would be a *very* good time to update them to ifwtech.CO.UK !

Once again, sorry for the bandwidth... but be warned about other domain names that may have been reactivated as the "evil walking dead".

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

## 367. Re: Knots in antenna wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-12 13:00:10 UTC
From: Murray <me@erewhon.com.au>
Message-ID: <416bd551$0$29079$5a62ac22@per-qv1-newsreader-01.iinet.net.au>
Source record: 88561

It's crocodiles here!
Murray

Tom Ring wrote:
> Steve Nosko wrote:
>
>> This also keeps the elephants away. I haven't had any elephant problems
>> since I started doing this.
>>
>
> I use it to keep the wolverines away, and it is 100% successful so far.
>
> tom
> K0TAR
>

## 368. Re: look how these guys put up a cb ant look at these picture

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-12 13:41:38 UTC
From: drwxr-xr-x <nobody@frontier.net>
Message-ID: <slrncmnnoi.1csd.bit-bucket@shell.config.com>
Source record: 88566

On Tue, 12 Oct 2004 00:51:11 -0500, jcooper874@webtv.net hath writ:
> www.wdentertainment.net/cb/QNAnt.htm click on link
>

"This page will take a few minutes to download due
to the size of the images."

That is because the idiot that built this front page used the
full-sized in the front page -- forcing you to download 12 of
the bloated suckers -- only to request your browser to re-size
them smaller to construct the first page with the "small" (HA!)
images.

I'm on DSL and it was a pig to load.. Pity the poor visitor that
is on dial-up -- or, worse, on dial-up in someplace where
per-minute charges apply. Thoughtless.

META NAME="GENERATOR" CONTENT="Adobe PageMill 2.0 Win"

Usually the blame can be shared with idiot-friendly MicroSloth
software. Not this time.

## 369. Re: balcony railing mount for DBS dish

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-12 13:44:49 UTC
From: Bob Miller <rmiller47@satx.rr.com>
Message-ID: <usnnm058ncsek28plrsaj2uv0u2f7umfmj@4ax.com>
Source record: 88564

On 11 Oct 2004 20:44:46 -0700, 3726414@spamhole.com (Bill) wrote:

>Hello
>
>I am trying to come up with a "balcony railing mount" for use with a
>Ku-band dish plus dish mover. I have searched google and have not
>found any online dealers which sell such a mount.
>
>My apartment is on the 11th floor with a railing on the outside patio,
>approx circumference is 12 inches (around).
>
>My apartment landlord is being "difficult" with roof access and wants
>me to subscribe to the apartment complex's own dish system.
>
>I simply want FTA programming.
>
>If anyone knows where I can find a balcony railing mount (or similar)
>please let me know
>
>thanks

Try http://www.starkelectronic.com/ and give them a phone call. They
have all sorts of antennas/hardware for tv.

bob
k5qwg

## 370. Re: "antenna" bulge under Bush's jacket

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-12 13:52:57 UTC
From: carl <carl.clark@nospam.com>
Message-ID: <416BE1B7.1CE9ED7B@nospam.com>
Source record: 88563

Can't be too safe these days, when he walks the crowds,
even a screwdriver can kill if used in the right place.

The woman tennis player was stabbed by a spectator
waiting to hurt her. Monica Selas ?

Too bad R Regan did not have on on when he was shot
by the nutcase.

If FBI wears them so would I.

carl

>
> Sorry gang but it's nothing so special. What he has on under his suit
> jacket is nothing more exotic than a bullet resistant vest. I guess he
> needed it for protection from hard hitting questions.
> To bad our president, whom ever it is, has to wear such things.
>
> Dave WD9BDZ

## 371. Re: physical/intuitive understanding of RL/RC time constants?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-12 15:12:15 UTC
From: richardharrison@webtv.net
Message-ID: <15603-416BF44F-352@storefull-3253.bay.webtv.net>
Source record: 88562

Alan Horowitz wrote:
"---how does the voltage "know" that it should be increasing exactly 63% during each time-constant period?"

The rate of growth or decline is natural as the circuit response is non-variable and operates on the energy flow in the circuit at the instant. This rate depends on the state of charge in the capacitor while the capacitor is charging. Rate of capacitor discharge depends on the charge remaining in the capacitor. It is steadily (exponentially) declining during discharge.

The time required to charge a capacitor to 63% (actually 63.2%) of full charge, or to discharge it to 37% (actually 36.8%) of its initial charge or voltage is defined as the "time constant" of the circuit.

A search on "time constant" will produce many colorful illustrations.

Time constant is the time in seconds for a capacitor to charge up to 63% of the applied voltage, or the time it takes a fully charged capacitor to discharge from 100% down to 37% of full charge.

Time constant is the product of R (in ohms) times C (in farads) in an RC circuit.

Time constant is the quotient of L/R with L in henries and R in ohms in an RL circuit.

Epsilon is a number approximately 2.71828 which is the base of the natural, Naperian, or hyperbolic logarithms.

There is a natural rate of growth or decline caused by growth or decline as a constant percentage of size at the moment. It is epsilon.

As an example of natural decline, the quantity of charge (q) remaining in a capacitor after current has been flowing out for (t) seconds is:

Qo times epsilon raised to the minus t/CR power.

Where Qo is the initial value of q.

Voltage is proportional to charge, so V at any time can be found by substituting Vo for Qo in the formula for q.

Best regards, Richard Harrison, KB5WZI

## 372. Re: NOT ifwtech.com

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-12 15:41:14 UTC
From: "Gary S." <Idontwantspam@net>
Message-ID: <8munm01ifma11rmc240q4nopk60hqhfs0p@4ax.com>
Source record: 88565
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

On Tue, 12 Oct 2004 13:57:25 +0100, "Ian White, G3SEK"
<G3SEK@ifwtech.co.uk> wrote:

>Sorry for the bandwidth, but...
>
>Please note: my former ifwtech.com domain is NOT under my control any
>more.
>
>I lost that domain name 3 years ago, due to my ISP's careless failure to
>renew it. Fortunately I also had the ifwtech.CO.UK name registered, and
>have been using that ever since.
>
>What's new - and nasty - is that ifwtech.com has now fallen into the
>hands of a company that has reactivated it as a gateway to popup ads,

A former ISP I had used a few years back, apparently suffered the same
fate after they went under, the domain name was snapped up by a
spammer.

Happy trails,
Gary (net.yogi.bear)
---
at the 51st percentile of ursine intelligence

Gary D. Schwartz, Needham, MA, USA
Please reply to: garyDOTschwartzATpoboxDOTcom

## 373. Re: Knots in antenna wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-12 15:47:58 UTC
From: Andy Cowley <andy.cowley@uwe.ac.uk>
Message-ID: <I5HAJy.Kxv@bath.ac.uk>
Source record: 88567

Tom Ring wrote:

> Steve Nosko wrote:
>
>> This also keeps the elephants away. I haven't had any elephant problems
>> since I started doing this.
>>
>
> I use it to keep the wolverines away, and it is 100% successful so far.
>

It also stops you buying EH antennas, if the knot is good and tight.

Andy

## 374. Re: NEWS - Researchers invent antenna for light

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-12 16:10:14 UTC
From: Andy Cowley <andy.cowley@uwe.ac.uk>
Message-ID: <I5HBL2.LwM@bath.ac.uk>
Source record: 88570

jimp@specsol-spam-sux.com wrote:

>
> There has never been a contradictory observation that the speed of light
> is other than a constant, ever.
>

FYI:

http://www.phys.unsw.edu.au/~dzuba/varyc.html

http://www.space.com/scienceastronomy/generalscience/constant_changing_010815.html

vy 73

Andy, M1EBV

## 375. Re: Giant Cu Cactus antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-12 16:21:12 UTC
From: "Bruce H. McIntosh" <scotsman@afn.org>
Message-ID: <pan.2004.10.12.16.21.08.607560@afn.org>
Source record: 88471

On Tue, 28 Sep 2004 19:18:09 +0000, Jimmie wrote:

> Neighborhood covenant was recently ammended to allow vertical antennas and
> to exclude beam antennas other than TV antennas and smaller. Fortunately for
> me my tribander was already grandfathered in, I lived here before it was a
> neighborhood.. I want to make the best of a Rhon 25 tower I have stored
> away. My tower is 50ft tall and could be extented even taller using vertical
> elements that did not support a load other than themselves. I was thinking
> of tuning the tower into a Giant copper Cactus antenna for 20M thru UHF by
> fastening 1/4 wl stubs on the side of the tower. Any reason why this would
> not work.

That's essentially what the Hy-Gain AV18HT HyTower is- a 50' tower with
stubs to make it resonate on 80-10. They say with a loading coil at the
feed it also does well on 160. You should be on the right track here,
though I'd likely do separate verticals for 6m, 2m and UHF. There was a
dandy 2m/440 collinear vertical in QST last fall that's working fine for
me, and I've had good results with a copper pipe 6m J-pole in the past.

--
---
Bruce H. McIntosh scotsman@afn.org www.afn.org/~scotsman WA4UF
---
Network geek with a strong affinity for Telecasters

## 376. Re: Printing wire list from EZNEC?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-12 16:24:09 UTC
From: Andy Cowley <andy.cowley@uwe.ac.uk>
Message-ID: <I5HC89.MFJ@bath.ac.uk>
Source record: 88569

Chuck wrote:

> Wes Stewart <n7ws_@_yahoo.com> wrote in message
> news:g3plm0p2a6is741btngn9amvd2vl5hng5k@4ax.com...

>>Trust me, most of us here grasp *exactly* what is going on.
>>
>
>
> Self delusion must one of your strong
> points, eh?
>

You're doing fine in that department.

EZNEC works very well and a few minor GUI
misfeatures are never going to alter that.
It's based on real science, not handwaving
and hearsay like some other things.

Stop digging Chuck.

## 377. Re: look how these guys put up a cb ant look at these picture

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-12 16:27:16 UTC
From: Jay in the Mojave <jay123a@qnet.com>
Message-ID: <10mo1f4pgn5bpfd@corp.supernews.com>
Source record: 88568

Looks like they had a good time, and friends helping out friends.
Its always a good thing to have friends help out!

Isn't that whats it all about?

Jay in the Great Mojave Desert.... just down the road ah ways from the
fillin station.

jcooper874@webtv.net wrote:

> www.wdentertainment.net/cb/QNAnt.htm click on link
>

## 378. Re: look how these guys put up a cb ant look at these picture

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-12 16:57:13 UTC
From: sideband <AINO8SPAMW@cac.net>
Message-ID: <J1Uad.7466$oi4.6331@newssvr16.news.prodigy.com>
Source record: 88472

Reminds me of a few antenna raising parties I've attended, both as a
CBer, and after I became a HAM.

Quite professional, and good community. They're to be applauded.. all
of them.

de AI8W, Chris

Jay in the Mojave wrote:

> Looks like they had a good time, and friends helping out friends.
> Its always a good thing to have friends help out!
>
> Isn't that whats it all about?
>
> Jay in the Great Mojave Desert.... just down the road ah ways from the
> fillin station.
>
> jcooper874@webtv.net wrote:
>
>> www.wdentertainment.net/cb/QNAnt.htm click on link
>>

## 379. Re: balcony railing mount for DBS dish

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-12 17:09:16 UTC
From: Timothy Daniels <TDaniels@NoSpamDot.com>
Message-ID: <4oSdnSl2O-UgkvHcRVn-sg@comcast.com>
Source record: 88473
Cross-posted to: rec.radio.amateur.antenna,rec.video.satellite.dbs,rec.video.satellite.tvro,alt.dss.hack,alt.dbs.echostar.hack

"Dante" wrote:
> If the HA allows so much as ONE flower box or hanging pot
> they cannot discriminate.The hangers are attached to the
> exterior and the boxes hang on the balcony rail. If anyone is
> able to hang ANYTHING, X-Mas lights, Flags, etc then a
> dish owner can "hang" a dish on the rail as long as it won't
> harm it, and any safe rail system can handle the weight of a
> dish no problem.

That is an ethical argument, not a legal argument.
HOAs can discriminate about a lot of things, such
as what can be parked in the carports - yes on cars,
no on boats. Descrimination per se is not illegal.

*TimDaniels*

## 380. Re: look how these guys put up a cb ant look at these picture

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-12 17:22:48 UTC
From: sideband <AINO8SPAMW@cac.net>
Message-ID: <IpUad.7470$zs4.5857@newssvr16.news.prodigy.com>
Source record: 88488

Odd.. it loaded here on my DSL in under three seconds. All of it.

Now, I agree full sized images on the front page is a bit thoughtless,
it was probably put together by someone who was just doing it to get
it out there, and isn't privy to all the things professional web
developers are....

chmod -R unannoyed drwxr-xr-x

de AI8W, Chris

drwxr-xr-x wrote:

> On Tue, 12 Oct 2004 00:51:11 -0500, jcooper874@webtv.net hath writ:
> That is because the idiot that built this front page used the
> full-sized in the front page -- forcing you to download 12 of
> the bloated suckers -- only to request your browser to re-size
> them smaller to construct the first page with the "small" (HA!)
> images.
>
> I'm on DSL and it was a pig to load.. Pity the poor visitor that
> is on dial-up -- or, worse, on dial-up in someplace where
> per-minute charges apply. Thoughtless.

## 381. Re: Printing wire list from EZNEC?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-12 19:19:22 UTC
From: Chuck <wa7rai@raibeam.com>
Message-ID: <5BWad.4153$6P5.4037@okepread02>
Source record: 88502

Andy Cowley <andy.cowley@uwe.ac.uk> wrote in message news:I5HC89.MFJ@bath.ac.uk...
> Chuck wrote:
>
> > Wes Stewart <n7ws_@_yahoo.com> wrote in message
> > news:g3plm0p2a6is741btngn9amvd2vl5hng5k@4ax.com...
>
> >>Trust me, most of us here grasp *exactly* what is going on.
> >>
> >
> >
> > Self delusion must one of your strong
> > points, eh?
> >
>
>
> You're doing fine in that department.
>
> EZNEC works very well and a few minor GUI
> misfeatures are never going to alter that.
> It's based on real science, not handwaving
> and hearsay like some other things.
>
> Stop digging Chuck.

Oh, of course... silly me! How could I have
ever thought handwaving and hearsay was
the basis for EZNEC... gee, thanks for the
edification, Andy.

Chuck, WA7RAI

## 382. Re: Printing wire list from EZNEC?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-12 19:25:25 UTC
From: Chuck <wa7rai@raibeam.com>
Message-ID: <6BWad.4154$6P5.390@okepread02>
Source record: 88476

Tom Donaly <dtdonaly@sbcglobal.net> wrote in message
news:idIad.2245$6q2.471@newssvr14.news.prodigy.com...
> Chuck wrote:
<... >
> > Nonsense! I have made the assertion - and
> > I continue to do so - that minninec and NEC
> > based programs cannot model my design
> > simply from their inability to simulate a
> > virtual bi-directional coaxial phasing/delay line.
>
> A "virtual bi-directional coaxial phasing/delay line."
> That's a good one. Very inventive.

Tom,

Either you're remarkably ignorant, or
you've made a failed attempt at being
clever... which is it?

Chuck, WA7RAI

## 383. Re: balcony railing mount for DBS dish

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-12 19:30:17 UTC
From: Fat Bastard <a_fat_bastard-NOSPAM-@hotmail.com>
Message-ID: <ckhba202ho8@news3.newsguy.com>
Source record: 88477
Cross-posted to: rec.radio.amateur.antenna,rec.video.satellite.dbs,rec.video.satellite.tvro,alt.dss.hack,alt.dbs.echostar.hack

Exactly!

"Dante" <Dante@TheInferno.net> wrote in message
news:fv0om0l8ulvhbn30vpjsbsaa2j7hbs0vjp@4ax.com...
> On Tue, 12 Oct 2004 01:46:04 -0700, "Timothy Daniels"
<TDaniels@NoSpamDot.com> wrote:
>
> > Actually, being on the 11th floor means squat. The window
> > sill is on the 11th floor, too, but it's part of the outside of the
> > building and you're not legally free to attach a dish to the
> > window sill. In reality, the railing is legally an exterior part of
> > the building like an exterior wall or the roof. What's on the
> > inside of the railing is balcony, and the railing begins the
> > outside of the building.
> >
> >*TimDaniels*
>
> I'm in building operations managment. While the mount cannot screw into
the railing it
> can be attached in a non-obtrusive manner, such as a clamp, and there is
nothing we can do
> about it. If it is set up on a brick or concrete block set on the floor of
the balcony we
> really have no room to bitch. If it hangs out there is room to make a
formal complaint and
> take them to court in an effort to get them to pull it back, but the FCC
is very clear
> that a balcony is fair game for a dish, as is a porch area.
>
> Dante
> (disclaimer)
> I don't "test" or pirate signals. I am a student of code and coding
techniques as well as smart card technology.

## 384. Re: balcony railing mount for DBS dish

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-12 19:42:11 UTC
From: Fat Bastard <a_fat_bastard-NOSPAM-@hotmail.com>
Message-ID: <ckhc0c02ik1@news3.newsguy.com>
Source record: 88474
Cross-posted to: rec.radio.amateur.antenna,rec.video.satellite.dbs,rec.video.satellite.tvro,alt.dss.hack,alt.dbs.echostar.hack

You also can't tell someone that the dish can't extend into "common area airspace" Airspace is unfortunately controlled by the FCC, now, a WALKING area, or other public/common area space yes, but not "airspace". You can write it into your CC&R's all you want, but it doesn't make them legal, and that is what the FCC is covering. If the dish is mounted on the owners exclusive use area, it can extend up above the height of the fence if that is what is needed for them to use it (provided it doesn't intrude into another units exclusive use area, or any common area). Just because people don't like to SEE it, doesn't mean you can ban being able to see it. Sure, it's better NOT to see it (dishes are pretty ugly), and it's nicer of the owner to abide by the requests of others, but they don't necessarily HAVE TO. If it is necessary to extend above a fence to receive signal, and it isn't intruding into common space (walkways, lawns, someone elses balcony, etc..) then you have no say.

"Timothy Daniels" <TDaniels@NoSpamDot.com> wrote in message news:6Z6dnS4XVvfHhfHcRVn-oA@comcast.com...
> "Dante" wrote:
> >
> > I'm in building operations managment.
>
> I am, too (condo executive board pres).
> Our CC&Rs clearly state that the railing
> of a balcony (and the fence of a patio)
> are NOT part of the "unit". Since the
> *inner* surfaces of fences are Exclusive
> Use Common Area, we allow attachment
> of dishes to the inner surface of fences
> providing that they don't poke up over the
> top of the fence into Common Area airspace.
>
> If you can attach a dish to the *inner* surface
> of the balcony railing without drilling holes in
> it and without wrapping a U clamp around an
> exterior part of it, you may be in the clear.
> But otherwise, the landlord or HOA can raise
> a legal stink. I, for one, would not disallow it,
> but I would, as an HOA president, discourage
> it. (See legal decision below.)
>
>
> > While the mount cannot screw into the railing it
> > can be attached in a non-obtrusive manner,

> > such as a clamp, and there is nothing we can do
> > about it.
>
>
> Have you gotten an attorney's opinion on that?
>
>
> > If it is set up on a brick or concrete block set on the floor
> > of the balcony we really have no room to bitch.
>
>
> True, and that is what I have recommended.
>
>
> > If it hangs out there is room to make a formal complaint
> > and take them to court in an effort to get them to pull it back,
> > but the FCC is very clear that a balcony is fair game for a
> > dish, as is a porch area.
>
>
> But is the balcony *railing* part of the "balcony" or part of
> the exterior of the building?
>
>
> Here is an FCC ruling which appears to bolster your view:
> http://www.fcc.gov/Bureaus/Cable/Orders/1997/da972305.txt
> The guy wanted to attach a dish to a balcony railing. But the
> argument against it was not that it was not part of the balcony,
> and it did not address safety concerns. It merely said that a
> "balcony" was part of Exclusive Use area and it did not get
> into whether the railing was part of the "balcony" or part of the
> "building exterrior". I believe that if that differentiation had
> been addressed - as most CC&Rs do - and if the safety issue
> had been raised, the decision would have gone the other way.
> Your opinion may vary. But there are national building
> management and property ownership corporations which
> would love to set a precedent in their favor. Would an
> individual dish owner want to take them on in court? The
> best thing from a least hassle standpoint and from a safety
> standpoint, is to put the dish on a tripod mounted in cement-
> filled buckets on the floor of the balcony.
>
> *TimDaniels*

## 385. Re: Printing wire list from EZNEC?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-12 19:57:10 UTC
From: Chuck <wa7rai@raibeam.com>
Message-ID: <6BWad.4155$6P5.426@okepread02>
Source record: 88475

Wes Stewart <n7ws_@_yahoo.com> wrote in message
news:o6gmm0985h1pggen34ooml73je61eus283@4ax.com...
> On Mon, 11 Oct 2004 17:01:12 -0700, "Chuck" <wa7rai@raibeam.com>
> writes:
> [snip]
> |
> |Apparently, when you don't like a message
> |you attempt to malign the messenger...
>
>
> and then goes on to malign me.
>

I'm disappointed, Wes. I was expecting
a rational response, not this baseless
accusation. There was nothing pejorative
in my response. Apparently, intellectual
honesty is not one of your assets.

Chuck, WA7RAI

## 386. Re: physical/intuitive understanding of RL/RC time constants?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-12 21:45:50 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <ckhjfe$dvs$1@newshost.mot.com>
Source record: 88478
Cross-posted to: sci.electronics.basics,sci.physics,rec.radio.amateur.antenna

Alan,

John Popelish got a good start with "e is a natural constant that has
some very sweet
properties in many applications of mathematics, and simplifying..."

Then, it looked as thought John Jardine was going to steal my thunder with
"the voltage knows nothing about how it's "supposed" to behave. "

This could resolve to a mater of faith Alan.

Indeed, the voltage/current "knows" nothing.

After observing what happens in such circuits, "we" (those who must
understand all things) very carefully examined what was going on and
"discovered" that there were mathematical expressions or equations which
would model what happens in nature. "We" came up with theories about what
was going on and what was causing it to happen. "We" then found ways to
make the math fit reality. In the case of time constants, we have a natural
phenomena which is very nicely described by the equations stated elsewhere
in this thread (the 1/e thingy). It is just like the F=MA equation. "We"
discovered that the force applied to a mass is equal to the mass times the
acceleration. The Mass knows nothing about force, acceleration or
mathematics. We found that this math describes nature.

It is exactly like a model airplane (or whatever). We make the model to
look like the real thing. The real thing knows not of the model that we
built, but if we did a good job, I or you can now look at the model and
"know" just how the real thing looks.

The math behind all of our sciences is just like this. *WE* found math
which models reality and because we did such a good job, we can now "do the
math" and "know" how the real thing should behave.

To be a little more specific, in the case of the time constant. we have
theories about current flow, charge, capacitance, inductance magnetism and
resistance which are borne out by countless experiments and then by
subsequent usage. These theories have all had mathematics fitted to them,
and by golly everything fits. We can now plug-in values to equations till
the cows come home and holy-cripes! The real thing does just what the math
predicted. Based upon the properties we have observed for each type of
component, this math works out such that this 1/e thingy fits just right.

In other words, the answer is: "It just does!"

73,
--
Steve N, K,9;d, c. i My email has no u's.

"Alan Horowitz" <alanh_27@yahoo.com> wrote in message
news:1e3670a7.0410111511.47223a3b@posting.google.com...
> when a current just starts flowing into a RL or RC circuit, how does
> the voltage "know" that it should be increasing exactly 63% during
> each time-constant period?
>
> And whence the number 63%?

# 387. Re: NEWS - Researchers invent antenna for light

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-12 21:51:55 UTC
From: jimp@specsol-spam-sux.com
Message-ID: <ckhjlr$5ou$1@mail.specsol.com>
Source record: 88481

Andy Cowley <andy.cowley@uwe.ac.uk> wrote:
> jimp@specsol-spam-sux.com wrote:

> >
> > There has never been a contradictory observation that the speed of light
> > is other than a constant, ever.
> >

> FYI:

> http://www.phys.unsw.edu.au/~dzuba/varyc.html

> http://www.space.com/scienceastronomy/generalscience/constant_changing_010815.html

> vy 73

> Andy, M1EBV

FYI:

http://curious.astro.cornell.edu/question.php?number=606

--
Jim Pennino

Remove -spam-sux to reply.

## 388. Re: Printing wire list from EZNEC?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-12 22:44:02 UTC
From: Chuck <wa7rai@raibeam.com>
Message-ID: <i7Zad.4163$6P5.3543@okepread02>
Source record: 88482

Tom Donaly <dtdonaly@sbcglobal.net> wrote in message
news:n8Xad.12172$nj.7538@newssvr13.news.prodigy.com...
> Chuck wrote:
> > Tom Donaly <dtdonaly@sbcglobal.net> wrote in message
> > news:idIad.2245$6q2.471@newssvr14.news.prodigy.com...
> >
> >>Chuck wrote:
> >
> > <... >
> >
> >>>Nonsense! I have made the assertion - and
> >>>I continue to do so - that minninec and NEC
> >>>based programs cannot model my design
> >>>simply from their inability to simulate a
> >>>virtual bi-directional coaxial phasing/delay line.
> >>
> >>A "virtual bi-directional coaxial phasing/delay line."
> >>That's a good one. Very inventive.
> >
> >
> > Tom,
> >
> > Either you're remarkably ignorant, or
> > you've made a failed attempt at being
> > clever... which is it?
> >
> > Chuck, WA7RAI
> >
> >
> >
> >
>
> I didn't make up that silly bafflegab, you did. As those
> things go, it was pretty good.
> 73,
> Tom Donaly, KA6RUH

Tom,

Your reply is most revealing as to your
ignorance in this regard!

Chuck, WA7RAI

## 389. Re: Trimmed Van Gorden All Bander - suprise!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-12 23:04:30 UTC
From: Dave <noone@nowhere.com>
Message-ID: <f_Sdnf8hTuaU_vHcRVn-pg@crocker.com>
Source record: 88480

"Ken Bessler" <kg0wx@NOSPAMyahoo.com> wrote in message
news:2t2rhkF1q0gliU1@uni-berlin.de...

> Anyone care to offer a theory as to what's going on
> with this setup?
>

you plugged it in and it worked... what else need be said. all the
speculation in the world may not get it exactly right, but hang on, there
will be some in here who will try anyway.

## 390. Re: physical/intuitive understanding of RL/RC time constants?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-12 23:06:56 UTC
From: Jonathan Kirwan <jkirwan@easystreet.com>
Message-ID: <g6mom013929s5sdu1rohhkb34t3rl5dlvn@4ax.com>
Source record: 88479
Cross-posted to: sci.electronics.basics,sci.physics,rec.radio.amateur.antenna

On Tue, 12 Oct 2004 16:20:32 -0500, "Steve Nosko"
<suteuve.nosukowicuz@moutouroula.com> wrote:

> **** Y I K E S !!!

;)

Jon

## 391. Re: physical/intuitive understanding of RL/RC time constants?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-13 00:10:15 UTC
From: "aunwin@insightbb.com"
Message-ID: <Hn_ad.228225$MQ5.41827@attbi_s52>
Source record: 88483
Cross-posted to: sci.electronics.basics,sci.physics,rec.radio.amateur.antenna

Nice job Robert, I really liked it
Art
"Robert Monsen" <rcsurname@comcast.net> wrote in message
news:6gKad.230613$D%.163996@attbi_s51...
> Alan Horowitz wrote:
> > when a current just starts flowing into a RL or RC circuit, how does
> > the voltage "know" that it should be increasing exactly 63% during
> > each time-constant period?
> >
> > And whence the number 63%?
>
> Suppose you are trying to fill up a box with balls. However, for some
> strange reason, you've decided that each time you throw in balls, you'll
> throw in 1/2 of the balls that will fit in the remaining space.
>
> At the first second, you have 1/2 the balls. Next second, you'll have
> that plus 1/2 of the remaining space, which is 1/2 + 1/4 = 3/4. The
> third second, you'll have that plus 1/2 the remaining space, ie, 1/2 +
> 1/4 + 1/8 = 7/8...
>
> So, the number of balls at any time t will be:
>
> B(t) = 1 - (1/2)^t
>
> Thus, after 3 seconds, there will be B(3) = 1 - (1/2)^3 = 1 - 1/8 = 7/8,
> just like above.
>
> Now, apply that same reasoning, only instead of using the ratio 1/2, use
> the ratio 1/e (since we are applying arbitrary rules)
>
> Then
>
> B(t) = 1 - (1/e)^t
>
> After the first second, you'll have
>
> B(1) = 1 - (1/e)^1 = 1 - 1/e = 0.632 (that is, 63%)
>
> Strange coincidence, isn't it? It happens because when you are charging
> a capacitor through a resistor, you are throwing balls, in the form of
> charges, into a box (the capacitor), and the number of charges you throw
> at any given time (the current) depends on how many charges are already
> on the capacitor (the voltage).

>
> Each step of the formula above is one time constant, RC. By dividing out
> the RC, you can get the answer given seconds, ie
>
> B(t) = 1 - (1/e)^(t/RC) = 1 - e^(-t/RC)
>
> Where B is the percentage 'filled' the capacitor is (ie, what percentage
> it is of the input voltage).
>
> Why is 1/e used instead of 1/2? That has to do with the fact that we
> must have a continuous solution, not a solution based on ratios of
> existing values; the rate of change of the current (ie, how many balls
> we throw in per unit time) is proportional to the voltage remaining,
> which is continuously changing. Using 1/e instead of 1/2 allows us to
> generalize to this, in the same way as the compound interest formula
> allows us to compute 'continuously compounding' interest.
>
> --
> Regards,
> Robert Monsen
>
> "Your Highness, I have no need of this hypothesis."
> - Pierre Laplace (1749-1827), to Napoleon,
> on why his works on celestial mechanics make no mention of God.

## 392. Re: physical/intuitive understanding of RL/RC time constants?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-13 00:12:09 UTC
From: Jonathan Kirwan <jkirwan@easystreet.com>
Message-ID: <6ooom095mq2fe519rcg3273vhi52ci3221@4ax.com>
Source record: 88485
Cross-posted to: sci.electronics.basics,sci.physics,rec.radio.amateur.antenna

On Tue, 12 Oct 2004 16:45:50 -0500, "Steve Nosko"
<suteuve.nosukowicuz@moutouroula.com> wrote:

>Alan,
>
> John Popelish got a good start with "e is a natural constant that has
>some very sweet properties in many applications of mathematics, and
>simplifying..."
>
>Then, it looked as thought John Jardine was going to steal my thunder with
>"the voltage knows nothing about how it's "supposed" to behave. "
>
>This could resolve to a mater of faith Alan.
>
>Indeed, the voltage/current "knows" nothing.
>
>After observing what happens in such circuits, "we" (those who must
>understand all things) very carefully examined what was going on and
>"discovered" that there were mathematical expressions or equations which
>would model what happens in nature. "We" came up with theories about what
>was going on and what was causing it to happen. "We" then found ways to
>make the math fit reality.

Reminds me of Galileo writing in "The Assayer," saying:

"Philosophy is written in this grand book-I mean the universe-which stands
continually open to our gaze, but it cannot be understood unless one first
learns to comprehend the language and interpret the characters in which it is
written. It is written in the language of mathematics, and its characters are
triangles, circles, and other geometric figures, without which it is humanly
impossible to understand a single word of it; without these, one is wandering
about in a dark labyrinth."

(By the way, to anyone who has NOT actually read The Assayer from beginning to
end, I highly recommend it!)

Mathematics is a wonderful world all of its own, independent of nature, yet
where it often turns out that insights in that world happen to happily suggest
relationships found in this world and where proper deductions there imply proper
deductions here. The language is sufficiently rigorous that someone two
millennia before me can describe a circle using it and I can read it today,
knowing absolutely nothing about their lives, their fads or interests, their
politics or style of dress, and come away with exactly the same image in mind
with exactly the same deductive power. In short, mathematics is a quantitative
language that speaks across culture, time, and place. And there is nothing we

have to compare with that.

The processes of science work to achieve a relatively objective process that works well. It requires the use of objective language sufficient for rigorous quantitative deductions (by anyone adequately trained in the language) to specific circumstances, insists that such language both explain past results well and (more importantly) also make accurate and repeatable predictions, requires quantitative prediction for discernment, and requires time and patience for the resulting critical opinion of others skilled in the field to arrive at a consensus. But mathematics *is* a key part of this objective language used in science because of its demonstrated congruencies with nature.

>In the case of time constants, we have a natural
>phenomena which is very nicely described by the equations stated elsewhere
>in this thread (the 1/e thingy). It is just like the F=MA equation. "We"
>discovered that the force applied to a mass is equal to the mass times the
>acceleration. The Mass knows nothing about force, acceleration or
>mathematics. We found that this math describes nature.

One thing to keep in mind is that ideas like "density," a useful relationship between volume and mass, are truly discovered through hard work and through trying to find some kind of useful discernment regarding sinking and floating. One doesn't just naturally _know_ about density, as our direct senses tell us nothing of the kind. It's discovered and then taught and learned. And such relationships are about parsimonious tools for prediction.

And yes, we have been fortunate that some math describes some nature.

>It is exactly like a model airplane (or whatever). We make the model to
>look like the real thing. The real thing knows not of the model that we
>built, but if we did a good job, I or you can now look at the model and
>"know" just how the real thing looks.

It can also be that the model ignores some of the unimportant details of the "real thing" and still be quite useful. Or that it ignores some important details, but that so long as we keep those boundaries and limitations in mind the model is still quite useful for many other things.

I like your example.

>The math behind all of our sciences is just like this. *WE* found math
>which models reality and because we did such a good job, we can now "do the
>math" and "know" how the real thing should behave.

We can also disappear into the mathematical universe and discover brand new relationships there and have some expectation that where such new territory is true there, it will probably be found true in the real world as well. One can make important discoveries using mathematics and use them to suggest what can be searched out and found here. Surprising, at times.

>To be a little more specific, in the case of the time constant. we have
>theories about current flow, charge, capacitance, inductance magnetism and
>resistance which are borne out by countless experiments and then by

>subsequent usage. These theories have all had mathematics fitted to them,
>and by golly everything fits. We can now plug-in values to equations till
>the cows come home and holy-cripes! The real thing does just what the math
>predicted. Based upon the properties we have observed for each type of
>component, this math works out such that this 1/e thingy fits just right.
>
>In other words, the answer is: "It just does!"

Yup. In the capacitor case, for example, I idealized it as a simple differential equation. Real capacitors are more complex, but the ideal is often close enough in practice to be useful.

Enjoyed seeing your thunder!

Jon

## 393. Re: balcony railing mount for DBS dish

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-13 00:50:48 UTC
From: Timothy Daniels <TDaniels@NoSpamDot.com>
Message-ID: <vsSdnQLb6v105vHcRVn-gg@comcast.com>
Source record: 88484
Cross-posted to: rec.radio.amateur.antenna,rec.video.satellite.dbs,rec.video.satellite.tvro,alt.dss.hack,alt.dbs.echostar.hack

"Fat Bastard" wrote:
> I can tell you that you are wrong. The owner of the particular
> unit in the case of a CONDO has exclusive rights to the balcony,
> and it's railings, provided they are not attached to a public right
> of way. If there is no walkway along the balcony railing so that
> the dish would intrude upon that space, they can NOT block
> the installation of a dish on the rail, or anywhere on the balcony
> for that matter, especially if it's not causing any structural damage
> to the railing [.......]

Can you quote a court decision or FCC ruling that declares
a balcony's railing to be Exclusive Use area in regards to
placement of a DBS dish?

*TimDaniels*

## 394. Re: physical/intuitive understanding of RL/RC time constants?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-13 02:52:13 UTC
From: Robert Monsen <rcsurname@comcast.net>
Message-ID: <tL0bd.249043$3l3.21884@attbi_s03>
Source record: 88487
Cross-posted to: sci.electronics.basics,sci.physics,rec.radio.amateur.antenna

aunwin@insightbb.com wrote:
> Nice job Robert, I really liked it
> Art

Thanks Art. I enjoyed thinking about it and writing it. The exponential function is everywhere in nature, and, despite all the mathematical machinery required to analyze it in detail, its a pretty simple concept.

Regards,
Bob Monsen

> "Robert Monsen" <rcsurname@comcast.net> wrote in message
> news:6gKad.230613$D%.163996@attbi_s51...
>
>>Alan Horowitz wrote:
>>
>>>when a current just starts flowing into a RL or RC circuit, how does
>>>the voltage "know" that it should be increasing exactly 63% during
>>>each time-constant period?
>>>
>>>And whence the number 63%?
>>
>>Suppose you are trying to fill up a box with balls. However, for some
>>strange reason, you've decided that each time you throw in balls, you'll
>>throw in 1/2 of the balls that will fit in the remaining space.
>>
>>At the first second, you have 1/2 the balls. Next second, you'll have
>>that plus 1/2 of the remaining space, which is 1/2 + 1/4 = 3/4. The
>>third second, you'll have that plus 1/2 the remaining space, ie, 1/2 +
>>1/4 + 1/8 = 7/8...
>>
>>So, the number of balls at any time t will be:
>>
>> B(t) = 1 - (1/2)^t
>>
>>Thus, after 3 seconds, there will be B(3) = 1 - (1/2)^3 = 1 - 1/8 = 7/8,
>>just like above.
>>
>>Now, apply that same reasoning, only instead of using the ratio 1/2, use
>>the ratio 1/e (since we are applying arbitrary rules)
>>
>>Then
>>
>> B(t) = 1 - (1/e)^t

>>
>>After the first second, you'll have
>>
>> B(1) = 1 - (1/e)^1 = 1 - 1/e = 0.632 (that is, 63%)
>>
>>Strange coincidence, isn't it? It happens because when you are charging
>>a capacitor through a resistor, you are throwing balls, in the form of
>>charges, into a box (the capacitor), and the number of charges you throw
>>at any given time (the current) depends on how many charges are already
>>on the capacitor (the voltage).
>>
>>Each step of the formula above is one time constant, RC. By dividing out
>>the RC, you can get the answer given seconds, ie
>>
>> B(t) = 1 - (1/e)^(t/RC) = 1 - e^(-t/RC)
>>
>>Where B is the percentage 'filled' the capacitor is (ie, what percentage
>>it is of the input voltage).
>>
>>Why is 1/e used instead of 1/2? That has to do with the fact that we
>>must have a continuous solution, not a solution based on ratios of
>>existing values; the rate of change of the current (ie, how many balls
>>we throw in per unit time) is proportional to the voltage remaining,
>>which is continuously changing. Using 1/e instead of 1/2 allows us to
>>generalize to this, in the same way as the compound interest formula
>>allows us to compute 'continuously compounding' interest.
>>
>>--
>>Regards,
>> Robert Monsen
>>
>>"Your Highness, I have no need of this hypothesis."
>> - Pierre Laplace (1749-1827), to Napoleon,
>> on why his works on celestial mechanics make no mention of God.
>
>
>

--
Regards,
Robert Monsen

"Your Highness, I have no need of this hypothesis."
- Pierre Laplace (1749-1827), to Napoleon,
on why his works on celestial mechanics make no mention of God.

## 395. Re: Printing wire list from EZNEC?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-13 03:46:54 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <s19pm09dca0or8gqt2e498bmrkfe8g6rpj@4ax.com>
Source record: 88489

On Mon, 11 Oct 2004 17:01:12 -0700, "Chuck" <wa7rai@raibeam.com>
wrote:
>Are you Roy's official toady?

On Tue, 12 Oct 2004 12:57:10 -0700, "Chuck" <wa7rai@raibeam.com>
wrote:
> There was nothing pejorative in my response.

Merely an example of moral relativism?

73's
Richard Clark, KB7QHC

## 396. Re: Printing wire list from EZNEC?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-13 03:53:54 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <289pm0hj08ingtoebo6nt7agtur6381vdp@4ax.com>
Source record: 88486

On Tue, 12 Oct 2004 15:44:02 -0700, "Chuck" <wa7rai@raibeam.com>
wrote:
>> >>>Nonsense! I have made the assertion - and
>> >>>I continue to do so - that minninec and NEC
>> >>>based programs cannot model my design
>> >>>simply from their inability to simulate a
>> >>>virtual bi-directional coaxial phasing/delay line.
>> >>
>> >>A "virtual bi-directional coaxial phasing/delay line."
>> >>That's a good one. Very inventive.

>> > Either you're remarkably ignorant, or
>> > you've made a failed attempt at being
>> > clever... which is it?

>> I didn't make up that silly bafflegab, you did. As those
>> things go, it was pretty good.

>Your reply is most revealing as to your
>ignorance in this regard!

Hi Chuck,

It may be regarded as ignorance, especially when your claim is
unsubstantiated and demands that your proof is available only through
a privileged knowledge. However being ignorant is not the same as
being stupid. The onus is upon you to show (resolve ignorance or
exhibit it in your own thinking - there are no third options) how your
claim is substantial - testimonial is insufficient.

73's
Richard Clark, KB7QHC

## 397. Re: Printing wire list from EZNEC?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-13 04:31:54 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <_c2bd.12375$nj.9867@newssvr13.news.prodigy.com>
Source record: 88490

Richard Clark wrote:
> On Tue, 12 Oct 2004 15:44:02 -0700, "Chuck" <wa7rai@raibeam.com>
> wrote:
>
>>>>>>Nonsense! I have made the assertion - and
>>>>>>I continue to do so - that minninec and NEC
>>>>>>based programs cannot model my design
>>>>>>simply from their inability to simulate a
>>>>>>virtual bi-directional coaxial phasing/delay line.
>>>>>
>>>>>A "virtual bi-directional coaxial phasing/delay line."
>>>>>That's a good one. Very inventive.
>
>
>>>>Either you're remarkably ignorant, or
>>>>you've made a failed attempt at being
>>>>clever... which is it?
>
>
>>>I didn't make up that silly bafflegab, you did. As those
>>>things go, it was pretty good.
>
>
>>Your reply is most revealing as to your
>>ignorance in this regard!
>
>
> Hi Chuck,
>
> It may be regarded as ignorance, especially when your claim is
> unsubstantiated and demands that your proof is available only through
> a privileged knowledge. However being ignorant is not the same as
> being stupid. The onus is upon you to show (resolve ignorance or
> exhibit it in your own thinking - there are no third options) how your
> claim is substantial - testimonial is insufficient.
>
> 73's
> Richard Clark, KB7QHC

Hi Richard,
I suspect Chuck's phrase is little more than an attempt to
seem technically erudite without, alas, conveying any information to the
reader. In short, bafflegab if done intentionally, self deceit otherwise.
73,

Tom Donaly, KA6RUH

## 398. Re: Printing wire list from EZNEC?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-13 05:37:16 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <j7epm059usbnc8a26hdag3ld9fu732j2i4@4ax.com>
Source record: 88491

On Wed, 13 Oct 2004 04:31:54 GMT, "Tom Donaly"
<dtdonaly@sbcglobal.net> wrote:
> I suspect Chuck's phrase is little more than an attempt to
>seem technically erudite without, alas, conveying any information to the
>reader. In short, bafflegab if done intentionally, self deceit otherwise.

Hi Tom,

Well considering "virtual bi-directional coaxial phasing/delay line."
in isolation, I find it rather un-remarkable (if this is in fact an
accurate quote). Afterall, each and every aspect is perfectly
achievable by any NEC modeler on the market (even ones with less than
standard GUIs).

Virtual? That is the first approximation of modeling from the outset.

Bi-directional? There is nothing to impede direction in any
interpretation.

Coaxial? This is merely a tedious exercise in construction.

Phasing/delay line? This follows of necessity and application of ANY
design of wire described within ANY modeler.

Is there something special about the combination of the isolated terms
that invalidates their being realized in ANY modeler? That is, is
there something special about a "virtual bi-directional" anything that
is not achieved separately as "virtual" or "bi-directional?"
Further, is there some unique entity of "bi-directional coaxial" that
fails resolution in a model? Or is "coaxial phasing/delay" unknown in
the art of modeling? I see nothing original and foreign about
"phasing/delay line" within the practice of modeling.

Does this arcane art only appear at the third order of terms? That
is, is there something unachieved by modelers in regard to "virtual
bi-directional coaxial?" This goes again to the simple tedium of
description of the various wires to construct one - tedium is not
unique unfortunately as anyone who has watched the Republicans
unsuccessfully try to pass their own agenda within their own
majorities can attest.

Perhaps it arrives at the fourth order of chaining terms. However, at
this point it becomes regressive evidence of that same tedium, which
can be simply resolved without a dictionary if only one were practiced
in the art of modeling. Let's see, there are 5! ways to de-convolve
this conundrum and none appear to be outside of the scope of rendering
in a model. As such, it appears to be through the poverty of the

carpenter rather than of the tool.

Barring testimonials, I may be wrong and my ignorance be disclosed by evidence. Or some may call me stupid but not Ishmael ;-)

73's
Richard Clark, KB7QHC

## 399. Re: balcony railing mount for DBS dish

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-13 05:38:18 UTC
From: Fat Bastard <a_fat_bastard-NOSPAM-@hotmail.com>
Message-ID: <ckietv013pk@news3.newsguy.com>
Source record: 88492
Cross-posted to: rec.radio.amateur.antenna,rec.video.satellite.dbs,rec.video.satellite.tvro,alt.dss.hack,alt.dbs.echostar.hack

Can you quote a court decision of FCC ruling that declares otherwise?
Property rights, at least here, include all EXCLUSIVE USE areas, which would include the balcony of an 11th floor apartment. There is NO "common area" around it, but the WALL behind it IS considered off limits, because it is a "structural" piece of the property that could be affected by drilling holes in it. Although I know of a few condos and apt's here that would allow it anyway, because they aren't uppity assholes when it comes to satellite systems. lol

I used to manage apt complexes, and condo's, and still have friends that manage, own and operate, and/or serve as repair staff at several local condo and apartment complexes, and they are all aware of the rules, and they allow the mounting of dishes on the balconies, provided they are not bordered by public area (walkways, yards, play areas, etc.), and typically a multi-level complex is NOT going to have anything outside of the balcony, unless they have a balcony that happens to attach to the main walkway leading to stairs/elevators (I do have a couple of friends that live in apartments that have this style balcony, and they are not allowed to mount on TOP of the rail, or on the OUTSIDE of the rail, where the dish would extend more than 2" past the top railing out into the walkway (and they wouldn't WANT to anyway, because someone would likely mess with it). Their dish is mounted on the balcony, close to the wall, where nobody can get to it without climbing onto their balcony to do it.

I'm sure with enough money, an asshole landlord or condo association might TRY to battle this type of installation, but I can almost guarantee that the owner would win. If it's already been tried in court, I'm sure we can find the outcome somewhere. If you find one, let me know. I'm not up to searching, as I have more important work to do right now. :)

I'll mount my dish anywhere I damn well please, and if they don't like it, they can take me to court, where I'll fight to the end (IF I were in a condo, especially one that I BOUGHT AND PAID FOR). Fortunately I'm in a house, and i can do whatever I want. i could mount a big 50 foot dish in my front yard if I wanted to (God would that piss off the neighbors, but that's too bad for them. I hate their purple and pink painted houses, so we'd be even. LOL).

"Timothy Daniels" <TDaniels@NoSpamDot.com> wrote in message
news:vsSdnQLb6v105vHcRVn-gg@comcast.com...
>
>
> Can you quote a court decision or FCC ruling that declares
> a balcony's railing to be Exclusive Use area in regards to

> placement of a DBS dish?
>
>
> *TimDaniels*

## 400. Re: balcony railing mount for DBS dish

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-13 09:23:10 UTC
From: Timothy Daniels <TDaniels@NoSpamDot.com>
Message-ID: <pJudnUX0lqdjbvHcRVn-jg@comcast.com>
Source record: 88496
Cross-posted to: rec.radio.amateur.antenna,rec.video.satellite.dbs,rec.video.satellite.tvro,alt.dss.hack,alt.dbs.echostar.hack

"Fat Bastard" wrote:
> Can you quote a court decision of FCC ruling that
> declares otherwise?

No. I base our differentiation between "Balcony" and
"Railing" on our CC&Rs. Our CC&Rs clearly define
the "balcony" to stop short of the railing. If the FCC's
rule overrides that definition, please show me in what
document or ruling.

> Property rights, at least here,

Where is "here"?

> include all EXCLUSIVE USE areas, which would
> include the balcony of an 11th floor apartment.

And you continue to side-step the definition of
"balcony" and to include the railing by inference.
Where is "railing" included in the definition of
a "balcony"?

> There is NO "common area" around it, but the WALL
> behind it IS considered off limits, because it is a
> "structural" piece of the property that could be affected
> by drilling holes in it.

That "structural piece of the property" is by definition
"Common Area" - it is NOT part of the Unit but part
of the commonly owned building (in the case of condos).
So are the walls on either side of the balcony common
area, and so are the ceiling and floor of a balcony
common area. If you would read the CC&Rs of those
buildings you "managed", you would know that the
balcony portion of the "Unit" is merely an airspace, as
is the rest of the "Unit". The owner buys an interest in
the structure (i.e. Common Area) and an interest in an
airspace known as the "Unit". Thus, he has control of
the use of that airspace. The question at hand is
whether the railing is part of that airspace or whether it
is part of the structure. Our CC&Rs say it is part of the
structure, and therefore part of the Common Area.
Whether it is Exclusive Use common area you have yet
to show because a window sill is common area that is
exclusively used by the adjacent unit, but it can't be used

to mount dishes. So what's the difference between a
window sill and a railing when it comes to classification
as Exclusive Use common area? I say there is none,
because a "railing" might be built like a low wall and an
extension of the building's facade, not a framework of
metal bars as you probably imagine. In such a case,
even you would say that the outer surface that low wall
was part of the exterior of the building and not part of the
Exclusive Use area - even on the 11th floor.

*TimDaniels*

## 401. Re: physical/intuitive understanding of RL/RC time constants?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-13 09:30:55 UTC
From: ghytrfvbnmju7654@mail.com
Message-ID: <cb623e6.0410130130.75f6a60b@posting.google.com>
Source record: 88499
Cross-posted to: sci.electronics.basics,sci.physics,rec.radio.amateur.antenna

alanh_27@yahoo.com (Alan Horowitz) wrote in message
news:<1e3670a7.0410111511.47223a3b@posting.google.com>...
> when a current just starts flowing into a RL or RC circuit, how does
> the voltage "know" that it should be increasing exactly 63% during
> each time-constant period?
>
> And whence the number 63%?

First, I should make a few corrections to what you've said. The voltage doesn't increase 63% during each time-constant period. If it did, it would become 1.63 times its original value after the first period, then 1.63*1.63 = 2.66 times, then 1.63^3 = 4.33 times, etc. The voltage would increase forever, and the circuit would fry itself.

I'm assuming you're talking about a battery connected to a resistor and capacitor (or inductor) in series, or similar circuits. In the case of the capacitor, the voltage across the capacitor starts from zero, and in the first time-constant period, the voltage across the capacitor rises to 63% of the voltage across the battery. In each time-constant period thereafter, it increases by 63% of the difference between the battery voltage and its previous voltage.

Sorry if you knew this already, but it's hard to tell from just reading a post.

It also isn't exactly 63%. The number predicted by theory is 63.212055882855767840447622983 85 ... %. But that number will not be exact either, due to the fact that the models which predict it assume perfect wires, perfect resistors, etc., which is never the case. At some point one has to round.

Let's examine such a circuit at at some time after the switch has been flipped. We'll call the voltage of the capacitor at this point V and the voltage of the battery E, the value of the resistor R and the value of the capacitor C.

The voltage across the resistor is E-V, making the current through it (E-V)/R. The charge on the capacitor is CV. If the capacitor were fully charged, it would have a charge CE. That means the capacitor needs CE-CV more charge to be fully charged. If the current through the resistor continued to flow at its current rate, the time it would take to supply this charge would be CR. This time is called the time constant.

It's crucial to notice that the time constant we just computed does not depend on how far the capacitor has been charged. At any time, it is correct to say that if the current through the capacitor would only stay the same, it would be fully charged after an amount of time later given by the time constant.

Of course, the current through the resistor will not continue to flow at its current rate. As capacitor is charged, the voltage across the resistor decreases, and with it, the current.

Let's pretend the current really does stay constant for a small fraction 1/n of the time constant, that is, for the short time CR/n. In this time, the capacitor's voltage would increase by 1/n of the difference between the battery's voltage E and its present voltage V. The voltage E-V across the resistor would decrease by the same amount, making it (1-1/n) of what it was before. After one time-constant, the voltage across the resistor would have decreased by the same ratio n times, making the voltage across the resistor (1-1/n)^n times its previous value.

This all still an approximation; the current doesn't really stay constant for any length of time. But if CR/n is very small, the drop in current is insignificant. If we choose larger and larger values of n, the answer we get becomes better and better. If we choose an extremely large n, the error will go away with rounding, and we will get (1-1/n)^n = 0.3678794... . And if the difference between the battery voltage E and the capacitor voltage V is 37% of what it was before, that means that the voltage of the capacitor increased by 63% of that difference.

The reciprical of 0.3678794..., 1/0.3678794... = 2.7182818..., appears in the answers to a lot of problems, and so it has been given a special name: "e." It is near [n/(n-1)]^n, for large n. We can simplify this formula even further by replacing n by m+1, making it (1+1/m)^(m+1), and dividing by (1+1/m), which is very near 1, to get (1+1/m)^m, for large m.

While in principle one could compute e by choosing a very large n, in practice you need such a large n to get a correct answer that the calculation that ensues becomes tedious. But, using the binomial theorem, we can find:

(1+1/m)^m = 1 + m(1/m) + [m(m-1)/2!](1/m)^2
+ [m(m-1)(m-2)/3!](1/m)^3 + ...

(1+1/m)^m = 1 + 1 + (1-1/m)/2! + (1-1/m)(1-2/m)/3! + ...

(1+1/m)^m ~ 1 + 1 + 1/2! + 1/3! + 1/4! + 1/5! + ... = e

We can do a similar calculation to find a series for 1/e from "near (1-1/n)^n for large n." It all works out the same, except that we're dealing with powers of (-1/n) instead of (1/n). Terms that had odd powers have their sign flipped:

1/e = 1 - 1 + 1/2! - 1/3! + 1/4! - 1/5! + 1/6! - 1/7! + ...

or

1/e = 3/3! - 1/3! + 5/5! - 1/5! + 7/7! - 1/7! + 9/9! - 1/9! + ...

1/e = 2/3! + 4/5! + 6/7! + 8/9! + 10/11! + 12/13! + ...

1/e = 1/1!/3 + 1/3!/5 + 1/5!/7 + 1/7!/9 + 1/9!/11 + 1/11!/13 + ...

With just the first two terms, which you can add in your head, you can get 1/e accurate to two significant figures.

--
Jim Black

"Within the philosophy system, it is quite correct. Let's try this: if it was in single quotes it would 'mean' "chaos". As it is not, there 'is some form'." -- Peter Kinane

## 402. Re: balcony railing mount for DBS dish

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-13 12:26:24 UTC
From: Kain0o0 <Kain0o0@Kain.com>
Message-ID: <Q99bd.65292$V06.19993@fe2.columbus.rr.com>
Source record: 88495
Cross-posted to: rec.radio.amateur.antenna,rec.video.satellite.dbs,rec.video.satellite.tvro,alt.dss.hack,alt.dbs.echostar.hack

i hads a similar argument with my old landlord . My problem was that my balcony didnt face south. i got one of my neighbours to let me use their balcony , since i was on the 1st floor.
I then attached my cable run from his apt. to mine to the existing cable lines.
They threatened and threatened and when it came push to shove they couldnt do anything. I took a nice printout of the FCC regulations and dropped it off ;).

My suggestion is that you give up some balcony space and just mount in on a concrete block. That way no one can fuck with you. Just cover it woth a garbage can or garbage bag.

Good Luck

PS: Doesnt matter where you are as long as your in the US

## 403. Stupid question of the day (SQOTD)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-13 12:45:19 UTC
From: Ken Bessler <kg0wx@NOSPAMyahoo.com>
Message-ID: <2t4ma7F1sbearU1@uni-berlin.de>
Source record: 88497

I just moved from DM79 to EM17. In Denver, I could put up 1 big inverted V for HF. I selected the Van Gordon "All Bander" and a LDG Z100 autotuner. Worked nice.

Now in Wichita, KS I don't have room for anything bigger than the 134' all bander and I'm without a tuner. I can, however, put up many antennas. (lotsa trees around)

Yesterday I trimmed my all bander until it was 25' per leg shorter and resonated on 40m. It also looks good now on 17 & 10 meters. I put up an inverted V for 20. Using a coax switch, I can switch between the two, giving me 40, 20, 17 & 10.

I'm starting to wonder if multiple antennas via an antenna switch might be the way to go.

I'd like 80 meters but the only area that can fit a large dipole like that is already taken by the all bander so an 80 meter dipole would either have to be a loaded vertical or a loaded dipole. I've got room for a 40' dipole - no larger.

30 & 12 meters do not interest me but 15 does - I'm thinking maybe I'll add 15 meter elements to my 20 meter inverted V.

My question - Am I right thinking that an antenna farm with resonant antennas would outperform a single large dipole and a tuner? My guess is yes.

Also, anybody got good plans for an 80 m inverted, loaded V antenna? Would it be better to put the 15m dipole on that antenna vs the 20m V?

Ken KG0WX

## 404. Re: Why do WiFi basestations use two antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-13 13:05:15 UTC
From: "Jock." <real_class_a@yahoo.co.uk>
Message-ID: <io9qm05n2qc49b5m00fka06nrbmnf4jffl@4ax.com>
Source record: 88493
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,uk.radio.amateur,uk.tech.broadcast

On Wed, 13 Oct 2004 03:07:11 -0700, "Ed Price" <edprice@cox.net> wrote:

>> The sort of democracy you're trying to establish in Iraq, you mean?

>In short, we were quite within our national interests to remove the fascist
>Hussein and Baathists.

Who's going to remove the Bush fascists and their toadies?

>Sorry, but I'm NOT a citizen of the World. So long as Iraqis wielded a sword
>in place of diplomacy, they were in need of containment and/or attitude
>adjustment.

Who's going to contain your sword-wielders? Perhaps another defeat like
Vietnam might sober you up, although I very much doubt it.

>And as far as I can remember, the French plan for Mideast
>stability, protection of human rights and assurance of World oil supplies
>just wasn't working. Uhh, they DID have a plan, didn't they?

They may well have had, but I'd bet it didn't involve illegal, Nazi-style
invasion and occupation of a sovereign country.

--

Jock.

A low voter turnout is an indication of fewer people
going to the polls.

- Dan Quayle ex US Vice President

## 405. Re: Printing wire list from EZNEC?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-13 13:37:58 UTC
From: "J. Mc Laughlin" <jcm@power-net.net>
Message-ID: <10mqbse39c9q1c4@corp.supernews.com>
Source record: 88494

Dear Richard:

As an MFA candidate and antenna fan, you will find artistic stimulation in reading US Patent 5,841,406.

Few, if anyone, will be able to serve up a literary and technical critique of this interesting document as well as you.

Good reading. 73 Mac N8TT

--
J. Mc Laughlin; Michigan U.S.A.
Home: JCM@Power-Net.Net

## 406. Re: cleaning antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-13 15:34:48 UTC
From: Jimmie <Gfender@carolina.rr.com>
Message-ID: <sWbbd.57554$ci3.3506147@twister.southeast.rr.com>
Source record: 88498

Roy I have used steel wool for year to clean Al with no problem, A couple of years ago I experienced the problem you described in your post. Apparently it depends on the type of Al used. The device I had trouble with was a TV antenna. Electrical connections were bad and I had disassembled it for cleaning. The Al was very soft.

"Roy Lewallen" <w7el@eznec.com> wrote in message news:10mmps1itd1p88f@corp.supernews.com...
> Prompted by the lack of a definitive response, I did a little web
> research. A wide variety of industries (e.g., cookware and window frame
> makers) routinely recommend cleaning aluminum with steel wool. Notably,
> however, the FAA seems to prohibit it on aircraft. One newsgroup poster
> (an EI, which would be a bad environment for corrosion) said he had
> direct -- bad -- experience, and would never use steel wool on aluminum
> again. So it looks to me like the jury is still out. Maybe it's ok if
> you live in an environment that's pretty benign with respect to
> corrosion, but a bad idea if you live close to the ocean. I don't claim
> to know, and I've never felt the need to clean outside aluminum, so it's
> just curiosity to me.
>
> Roy Lewallen, W7EL

## 407. Discone and quadrifilar helix ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-13 15:44:11 UTC
From: Thierry <->
Message-ID: <416d4d56@news.vo.lu>
Source record: 88500

Hi,

To pick up a 137 MHz signal from wx satellite (POES), are the discone and quadrifilar helix antennas similar, I mean, they are different in design but for the rest ?
Are they both omnidirectional and are they both able to change automatically the elevation and azimuth to the satellite direction without interruption and without requiring a rotator ? or only the helix provides this capability ?

Thanks in advance

Thierry, ON4SKY
http://www.astrosurf.com/lombry

## 408. Re: Discone and quadrifilar helix ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-13 16:16:24 UTC
From: fractenna@aol.com
Message-ID: <20041013121624.18603.00002444@mb-m07.aol.com>
Source record: 88430

>Hi,
>
>To pick up a 137 MHz signal from wx satellite (POES), are the discone and
>quadrifilar helix antennas similar, I mean, they are different in design but
>for the rest ?
>Are they both omnidirectional and are they both able to change automatically
>the elevation and azimuth to the satellite direction without interruption
>and without requiring a rotator ? or only the helix provides this capability
>?
>
>Thanks in advance
>
>Thierry, ON4SKY
>http://www.astrosurf.com/lombry
>

A discone is a wideband, upside down, vertical monopole, essentially. It has poor coverage at high elevations. It is omniazimuth.

Why would you need a discone? It's chosen for its bandwidth, and you don't appear to have this as a requirement. Also its fairly good sized, even for the skeleton ones.

73,
Chip N1IR

## 409. Re: Printing wire list from EZNEC?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-13 16:47:39 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <L_cbd.3406$6q2.549@newssvr14.news.prodigy.com>
Source record: 88426

Richard Clark wrote:
> On Wed, 13 Oct 2004 04:31:54 GMT, "Tom Donaly"
> <dtdonaly@sbcglobal.net> wrote:
>
>> I suspect Chuck's phrase is little more than an attempt to
>>seem technically erudite without, alas, conveying any information to the
>>reader. In short, bafflegab if done intentionally, self deceit otherwise.
>
>
> Hi Tom,
>
> Well considering "virtual bi-directional coaxial phasing/delay line."
> in isolation, I find it rather un-remarkable (if this is in fact an
> accurate quote). Afterall, each and every aspect is perfectly
> achievable by any NEC modeler on the market (even ones with less than
> standard GUIs).
>
> Virtual? That is the first approximation of modeling from the outset.
>
> Bi-directional? There is nothing to impede direction in any
> interpretation.
>
> Coaxial? This is merely a tedious exercise in construction.
>
> Phasing/delay line? This follows of necessity and application of ANY
> design of wire described within ANY modeler.
>
> Is there something special about the combination of the isolated terms
> that invalidates their being realized in ANY modeler? That is, is
> there something special about a "virtual bi-directional" anything that
> is not achieved separately as "virtual" or "bi-directional?"
> Further, is there some unique entity of "bi-directional coaxial" that
> fails resolution in a model? Or is "coaxial phasing/delay" unknown in
> the art of modeling? I see nothing original and foreign about
> "phasing/delay line" within the practice of modeling.
>
> Does this arcane art only appear at the third order of terms? That
> is, is there something unachieved by modelers in regard to "virtual
> bi-directional coaxial?" This goes again to the simple tedium of
> description of the various wires to construct one - tedium is not
> unique unfortunately as anyone who has watched the Republicans
> unsuccessfully try to pass their own agenda within their own
> majorities can attest.
>

> Perhaps it arrives at the fourth order of chaining terms. However, at
> this point it becomes regressive evidence of that same tedium, which
> can be simply resolved without a dictionary if only one were practiced
> in the art of modeling. Let's see, there are 5! ways to de-convolve
> this conundrum and none appear to be outside of the scope of rendering
> in a model. As such, it appears to be through the poverty of the
> carpenter rather than of the tool.
>
> Barring testimonials, I may be wrong and my ignorance be disclosed by
> evidence. Or some may call me stupid but not Ishmael ;-)
>
> 73's
> Richard Clark, KB7QHC

Hi Richard,
that's a good analysis. Some inventors like to make up
high-sounding names for their brain children, motivated by the
same reason John of Trevisa said people learned "Freynsch" in
the fourteenth century: "for to be more y-told of."
73,
Tom Donaly, KA6RUH

## 410. radial question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-13 17:40:19 UTC
From: larry d clark <buddycl@swbell.net>
Message-ID: <7Mdbd.5169$q%7.787@newssvr11.news.prodigy.com>
Source record: 88506

i just added some surface mounted radials to a vertical antenna i made
and wondered if there is any wisdom to anchoring the far end from the
antenna with a 6 inch rod that has a good rf connection to the radial.
the final answer probably is try it and find out, but i thought someone
might point out ther error/wisdom of my thinking.

larry
kd5foy

## 411. Re: cleaning antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-13 17:58:45 UTC
From: Jimmie <Gfender@carolina.rr.com>
Message-ID: <p1ebd.57562$ci3.3513561@twister.southeast.rr.com>
Source record: 88436

"Tom Ring" <news0000@taring.org> wrote in message
news:416b362b$0$91007$39cecf19@news.twtelecom.net...
> CW wrote:
> > Try Mother's Mag and Aluminum polish. When I was in basic training,
there
> > was a guy that brought a can of Mother's with him. His stuff looked so
much
> > better than the rest (everyone else was using Brasso) that they told him
he
> > couldn't use it unless he supplied it to everyone. Yes, it's that good.
> >
>
> Thanks, I'll give it a try.
>
> tom
> K0TAR

The Mothers works very well depending on how bad the aluminum is gunked up to start with. Mainly it a finish polish. I tried this but it was cleaning to a degree I could not justify. Way to much elbow grease for something that was going to be "tarnished" again soon and not cleaned for years.

## 412. Re: Self made antenna for CB

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-13 18:10:09 UTC
From: Jimmie <Gfender@carolina.rr.com>
Message-ID: <5cebd.57564$ci3.3513793@twister.southeast.rr.com>
Source record: 88443

Lots of info on building antennas. If you are interested in beams you will soon find you can roll your own with only slightly more effort than it takes to assemble a store bought antenna. You may find it is not a lot cheaper to build your own unless you have a cheap supply of material. I used to belong to a CB club in the ealy 70's that built Yagi antennas for its members. There was an Al extrusion mill nearby and we could buy defective/blmished pieces for pennies a pound. Most expensive part was the irrigation pipe boom. Think it cost about $30 then. Local feed and seed had them on a rack outside. If the store was closed we would get one off the rack and slide an envelope with the money under the door.

"Johann Höchtl" <johann.hoechtl@myrealbox.com> wrote in message news:4167b086$0$20466$91cee783@newsreader02.highway.telekom.at...
> Hello,
>
> i would like to make my own antenna for CB radio, mostly because i am
> interessted in the technics involved, not strictly because of saving
> some money.
>
> I was googling a while but unfortunately the information i gathered was
> rather unsatisfactory. Quite some theory but lack of practical
descriptions.
>
>
> Are there good links to pages how to make it's own antenna?
>
>
> I am interessted in an antenna which gives me a good trade of between
> gain, ease of operation and ease of manufacturing.
>
> I think now that either a "long wire antenna" or a dipole would be the
> best for my purpose. I would place both vertically on a fishing rod.
> A horizontal adjustment would yield better results in DX but not so good
> results for near communication, right?
>
> But i wonder how i can make a balun on my own. I guess i need a 1:1
> balun for the dipole (i use rg58 to the radio) or a 1:4? balun for the
> long wire.
>
> Would the two antenna types be a good choice?
>
> Any help would be appreciated.
>
> Greetings,

> Johann

## 413. Re: Self made antenna for CB

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-13 18:13:38 UTC
From: Jimmie <Gfender@carolina.rr.com>
Message-ID: <mfebd.57566$ci3.3513819@twister.southeast.rr.com>
Source record: 88448

Make the antenna all one piece 1/2wavelength long and feed with a gamma match. You can Google plenty of info on this.

"Johann Höchtl" <johann.hoechtl@myrealbox.com> wrote in message news:41698e95$0$31896$91cee783@newsreader02.highway.telekom.at...
>
>
> Hal Rosser wrote:
>
> > You'll find a simple dipole may be your best choice for starting out.
> > Most important of all is to get the antenna up high and use vertical
> > orientation.
> > If I recall, each leg of the dipole should be around 102 inches.
>
> 102 inches, or 2.59 m for a metric man like me. That's right. But i
> bother how i can go from balanced to unbalanced. I use rg58 wire and i
> do not want to radio interfere my neighbours nor let my radio go up in
> smoke.
>
> So i guess i need a balun. The impedance at the connector from antenna
> to wire should already be more or less 50 ohms, but it's balanced.
>
> What would make an easy though effective 1:1 balun?

## 414. Re: Printing wire list from EZNEC?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-13 18:50:29 UTC
From: Wes Stewart <n7ws_@_yahoo.com>
Message-ID: <v4uqm0hc09gjgtd7rp0gjded4ffqt2i10f@4ax.com>
Source record: 88503

On Wed, 13 Oct 2004 11:08:36 -0700, "Chuck" <wa7rai@raibeam.com>
wrote:
[snip]

|Feeding induced energy from a
|passive antenna into an active
|antenna is common practice in AM
|broadcast engineering.

I'm curious. Does this require a unidirectional transmission line?

## 415. Re: Self made antenna for CB

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-13 19:28:23 UTC
From: Johann Höchtl <johann.hoechtl@myrealbox.com>
Message-ID: <416d8122$0$16298$91cee783@newsreader01.highway.telekom.at>
Source record: 88455

```
Jimmie wrote:
> Make the antenna all one piece 1/2wavelength long and feed with a gamma
> match. You can Google plenty of info on this.
>
Thank you. gamma match. That did the trick. As a native german speaking
I lack some vocabulary and the information in english is better.
>>But i
>>bother how i can go from balanced to unbalanced. I use rg58 wire and i
>>do not want to radio interfere my neighbours nor let my radio go up in
>>smoke.
>>
>>So i guess i need a balun. The impedance at the connector from antenna
>>to wire should already be more or less 50 ohms, but it's balanced.
>>
>>What would make an easy though effective 1:1 balun?
>
>
>
```

## 416. Re: Discone and quadrifilar helix ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-13 19:32:42 UTC
From: fractenna@aol.com
Message-ID: <20041013153242.07554.00001829@mb-m18.aol.com>
Source record: 88519

>There is no advantage of using a discone, or even drawbacks vs. the helix,
>excepted the price ?

Discone is not the right antenna for this app.

QF helix is good, so is a 2 turn Kraus helix, or a cp patch.

Crossed dipoles in quadrature acceptable in most cases too.

73,
Chip N1IR

## 417. Re: radial question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-13 20:01:00 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <ckk1hs$n9a$1@sparta.btinternet.com>
Source record: 88439

> i just added some surface mounted radials to a vertical antenna i made
> and wondered if there is any wisdom to anchoring the far end from the
> antenna with a 6 inch rod that has a good rf connection to the radial.
> the final answer probably is try it and find out, but i thought someone
> might point out ther error/wisdom of my thinking.
>
> larry
> kd5foy

==========

Larry, you must be joking!

A 6-inch rod at the end of each (truly) surface radial will have the effect of increasing the length of each radial by 6 inches. Just by looking at them, it can be judged the effect on performance will be absolutely negligible.

At HF, adding 6-feet rods will have the effect of increasing the length of the radials by about 6 feet. Again, the difference in performance will very likely not be detectable.

It depends to some extent on how long are the radials before you start adding the rods.

With true surface or very shallow buried radials you can forget about resonant lengths.

To make a noticeable improvement you will have to double the number of existing radials - and then only when the number of existing radials is less than about a dozen.

If you like amusing yourself with simple numbers, to observe the behaviour of sets of shallow-buried radials, download in a few seconds program RADIALS2 from website below.
----
.....................................................
Regards from Reg, G4FGQ
For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp
.....................................................

## 418. Re: Stupid question of the day (SQOTD)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-13 20:58:46 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <wEgbd.101612$DV3.55763@bignews5.bellsouth.net>
Source record: 88504

> I'm starting to wonder if multiple antennas via an antenna
> switch might be the way to go.

Why not have 1 feedline - and ' fan out ' several dipoles from that one
feedpoint.
then you won't even need the coax switch

---
Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.772 / Virus Database: 519 - Release Date: 10/1/2004

## 419. Re: balcony railing mount for DBS dish

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-13 21:07:29 UTC
From: superskinnyguy <expressvuclown@gmail.com>
Message-ID: <xOgbd.100$dN5.85@text.usenetserver.com>
Source record: 88425
Cross-posted to: rec.radio.amateur.antenna,rec.video.satellite.dbs,rec.video.satellite.tvro,alt.dss.hack,alt.dbs.echostar.hack

"Fat Bastard" <a_fat_bastard-NOSPAM-@hotmail.com> wrote in message
news:ckk480075m@news3.newsguy.com...
> "Timothy Daniels" <TDaniels@NoSpamDot.com> wrote in message
> news:pJudnUX0lqdjbvHcRVn-jg@comcast.com...

If you sign a piece of paper when you move saying you'll abide by
regulations of the building as is most often the case, then they aren't
suggestions anymore. It's a legally binding contract.

## 420. Re: Discone and quadrifilar helix ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-13 21:33:00 UTC
From: "G.Beat" <nonow9mapsgb@no.comcast.spam>
Message-ID: <fahbd.242301$D%.126530@attbi_s51>
Source record: 88511

Here is a good web site for building a quadfilar helix antenna

http://www.qsl.net/kf4cpj/qha/

"Thierry" <-> wrote in message news:416d7e4b$1@news.vo.lu...
>
> This is to receive WX APT signals broadcast on 137 Mhz and sometimes to
> listen to
> the aviation band or work VHF (144 - 146 MHz - amateur allocation).
> Should I select a discone instead of the helix ?
> Are there any advantages of using a discone, or drawbacks, versus a
> quadrifilar helix
> antenna, except the price ?
>
> Thierry
>
>
> "Roy Lewallen" <w7el@eznec.com> wrote in message
> news:10mqqoujpr9qaf8@corp.supernews.com...
>> A discone antenna is a vertically polarized, broad bandwidth antenna. A
>> quadrifilar helix is a circularly polarized, relatively narrow bandwidth
>> antenna. About the only thing they have in common is that both are
>> omnidirectional in azimuth. A quadrifilar helix is a more suitable
>> antenna for receiving the circularly polarized, relatively narrow
>> bandwidth signals from a weather satellite.
>>
>> Roy Lewallen, W7EL
>>

## 421. Re: physical/intuitive understanding of RL/RC time constants?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-13 22:35:10 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <ckkant$res$1@newshost.mot.com>
Source record: 88460
Cross-posted to: sci.electronics.basics,sci.physics,rec.radio.amateur.antenna

Jonathan,
you put this to some nice words.
Steve K9DCI

"Jonathan Kirwan" <jkirwan@easystreet.com> wrote in message
news:6ooom095mq2fe519rcg3273vhi52ci3221@4ax.com...
> On Tue, 12 Oct 2004 16:45:50 -0500, "Steve Nosko"
> <suteuve.nosukowicuz@moutouroula.com> wrote:
>
> >Alan,
> >
> > John Popelish got a good start with "e is a natural constant that has
> >some very sweet properties in many applications of mathematics, and
> >simplifying..."
> >
> >Then, it looked as thought John Jardine was going to steal my thunder
with
> >"the voltage knows nothing about how it's "supposed" to behave. "
> >
> >This could resolve to a mater of faith Alan.
> >
> >Indeed, the voltage/current "knows" nothing.
> >
> >After observing what happens in such circuits, "we" (those who must
> >understand all things) very carefully examined what was going on and
> >"discovered" that there were mathematical expressions or equations which
> >would model what happens in nature. "We" came up with theories about
what
> >was going on and what was causing it to happen. "We" then found ways to
> >make the math fit reality.
>
> Reminds me of Galileo writing in "The Assayer," saying:
>
> "Philosophy is written in this grand book-I mean the universe-which stands
> continually open to our gaze, but it cannot be understood unless one first
> learns to comprehend the language and interpret the characters in which it
is
> written. It is written in the language of mathematics, and its characters
are
> triangles, circles, and other geometric figures, without which it is
humanly
> impossible to understand a single word of it; without these, one is
wandering

> about in a dark labyrinth."
>
> (By the way, to anyone who has NOT actually read The Assayer from
beginning to
> end, I highly recommend it!)
>
> Mathematics is a wonderful world all of its own, independent of nature,
yet
> where it often turns out that insights in that world happen to happily
suggest
> relationships found in this world and where proper deductions there imply
proper
> deductions here. The language is sufficiently rigorous that someone two
> millennia before me can describe a circle using it and I can read it
today,
> knowing absolutely nothing about their lives, their fads or interests,
their
> politics or style of dress, and come away with exactly the same image in
mind
> with exactly the same deductive power. In short, mathematics is a
quantitative
> language that speaks across culture, time, and place. And there is
nothing we
> have to compare with that.
>
> The processes of science work to achieve a relatively objective process
that
> works well. It requires the use of objective language sufficient for
rigorous
> quantitative deductions (by anyone adequately trained in the language) to
> specific circumstances, insists that such language both explain past
results
> well and (more importantly) also make accurate and repeatable predictions,
> requires quantitative prediction for discernment, and requires time and
patience
> for the resulting critical opinion of others skilled in the field to
arrive at a
> consensus. But mathematics *is* a key part of this objective language
used in
> science because of its demonstrated congruencies with nature.
>
> >In the case of time constants, we have a natural
> >phenomena which is very nicely described by the equations stated
elsewhere
> >in this thread (the 1/e thingy). It is just like the F=MA equation.
"We"
> >discovered that the force applied to a mass is equal to the mass times
the
> >acceleration. The Mass knows nothing about force, acceleration or
> >mathematics. We found that this math describes nature.

>
> One thing to keep in mind is that ideas like "density," a useful
relationship
> between volume and mass, are truly discovered through hard work and
through
> trying to find some kind of useful discernment regarding sinking and
floating.
> One doesn't just naturally _know_ about density, as our direct senses tell
us
> nothing of the kind. It's discovered and then taught and learned. And
such
> relationships are about parsimonious tools for prediction.
>
> And yes, we have been fortunate that some math describes some nature.
>
> >It is exactly like a model airplane (or whatever). We make the model to
> >look like the real thing. The real thing knows not of the model that we
> >built, but if we did a good job, I or you can now look at the model and
> >"know" just how the real thing looks.
>
> It can also be that the model ignores some of the unimportant details of
the
> "real thing" and still be quite useful. Or that it ignores some important
> details, but that so long as we keep those boundaries and limitations in
mind
> the model is still quite useful for many other things.
>
> I like your example.
>
> >The math behind all of our sciences is just like this. *WE* found math
> >which models reality and because we did such a good job, we can now "do
the
> >math" and "know" how the real thing should behave.
>
> We can also disappear into the mathematical universe and discover brand
new
> relationships there and have some expectation that where such new
territory is
> true there, it will probably be found true in the real world as well. One
can
> make important discoveries using mathematics and use them to suggest what
can be
> searched out and found here. Surprising, at times.
>
> >To be a little more specific, in the case of the time constant. we have
> >theories about current flow, charge, capacitance, inductance magnetism
and
> >resistance which are borne out by countless experiments and then by
> >subsequent usage. These theories have all had mathematics fitted to
them,

> >and by golly everything fits. We can now plug-in values to equations
till
> >the cows come home and holy-cripes! The real thing does just what the
math
> >predicted. Based upon the properties we have observed for each type of
> >component, this math works out such that this 1/e thingy fits just right.
> >
> >In other words, the answer is: "It just does!"
>
> Yup. In the capacitor case, for example, I idealized it as a simple
> differential equation. Real capacitors are more complex, but the ideal is
often
> close enough in practice to be useful.
>
> Enjoyed seeing your thunder!
>
> Jon

## 422. Re: Printing wire list from EZNEC?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-13 22:42:32 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10mrbqpn5n2tg0c@corp.supernews.com>
Source record: 88422

Chuck wrote:
> . . .
> That said, I take exception with your
> statement regarding the
> bi-directionality of the simulated
> coaxial transmission lines in available
> NEC(n) engines. Their simulations are
> uni-directional - from the input to the
> load, but not in reverse.

That is patently false, and can be easily demonstrated. The transmission line model in NEC (and EZNEC) is a linear network which is completely bidirectional.

>. . .

> Please consider the following:
>
> Some years ago - using EZNEC - I
> modeled my basic 2 element driver
> using a simulated a bi-directional
> coaxial phasing line, by placing two
> such lines side-by-side - one fed at
> the front matching network and
> terminated in the rear matching
> network, the other fed at the rear
> matching network and terminated in
> the front matching network. Applying
> empirical data to the rear input
> (simulating the induced energy), the
> ensuing results were consistent in
> every way with the empirical model.
>
> While this may or may not be
> definitive proof, it does strongly
> support my assertion.

> . . .

I think some doubt is warrented about both Chuck's measurement ability (which led him to conclude that his antenna has more gain than theoretically possible) and his modeling ability.

In September 1997, Chuck sent me the model he created with his pirated copy of EZNEC. Among other problems, which I pointed out to him at that time, were wires which intersected at other than a segment junction, and

a wire which was entirely inside another wire, which causes NEC-2 to give unpredictable and wrong results. (Such errors are now caught by EZNEC 4.0's Geometry Check, and a model with those errors wouldn't run.) This, along with more of the history of his attempts to fit his claims to modeled results, can be found by going to http://groups.google.com and searching the archives of this group for the articles with the subject "raibeam antenna models". There, you'll also find my modeling results for the "Raibeam" and a restatement of the offer I made Chuck some time before, as follows (from my posting of September 23, 1997):

> I made Chuck an offer a while back, as follows: That if he has the
> Raibeam tested at a certified antenna range and the results show a
> free-space gain of at least 5.5 dBd (7.65 dBi) with simultaneous 25 dB
> or greater f/b ratio, I'll pay the test fee. This is performance less
> than he claims and less than he claims his model shows. But so far he
> hasn't taken me up on the offer.

Although I'm sure the cost of such a test is much greater than it was when I made the offer, I'll still honor it. Still not interested, Chuck?

Roy Lewallen, W7EL

## 423. Re: Printing wire list from EZNEC?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-13 22:45:58 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10mrc198dmv1c90@corp.supernews.com>
Source record: 88449

I should also note that a number of professional (real P.E.) and nationally known broadcast engineering consultants are among the users of EZNEC software. It's routinely used for the design of AM broadcast antenna arrays.

Roy Lewallen, W7EL

Wes Stewart wrote:

> On Wed, 13 Oct 2004 11:08:36 -0700, "Chuck" <wa7rai@raibeam.com>
> wrote:
> [snip]
>
> |Feeding induced energy from a
> |passive antenna into an active
> |antenna is common practice in AM
> |broadcast engineering.
>
>
> I'm curious. Does this require a unidirectional transmission line?

## 424. Re: Stupid question of the day (SQOTD)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-13 23:08:31 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10mrdbgkc7s0gc6@corp.supernews.com>
Source record: 88453

When you put a bunch of resonant antennas in close proximity and feed them with individual transmission lines, you really have one antenna with multiple feedpoints. The antennas couple to each other and affect each other's patterns and feedpoint impedances. The higher frequency antennas are, in general, the most affected.

Where you have the room, the advantage to having individual antennas is that you have control over the radiation pattern on each band. When you feed a single antenna on multiple bands, you have to take what you get (although it's easy enough to predict with reasonable accuracy with a modeling program). Otherwise, there's no other real advantage to individual antennas. And, as I mentioned, when the antennas are close to each other, you'll still get distorted patterns on some bands.

Roy Lewallen, W7EL

Ken Bessler wrote:

> I just moved from DM79 to EM17. In Denver, I could
> put up 1 big inverted V for HF. I selected the Van Gordon
> "All Bander" and a LDG Z100 autotuner. Worked nice.
>
> Now in Wichita, KS I don't have room for anything bigger
> than the 134' all bander and I'm without a tuner. I can,
> however, put up many antennas. (lotsa trees around)
>
> Yesterday I trimmed my all bander until it was 25' per leg
> shorter and resonated on 40m. It also looks good now on
> 17 & 10 meters. I put up an inverted V for 20. Using a
> coax switch, I can switch between the two, giving me 40,
> 20, 17 & 10.
>
> I'm starting to wonder if multiple antennas via an antenna
> switch might be the way to go.
>
> I'd like 80 meters but the only area that can fit a large
> dipole like that is already taken by the all bander so an
> 80 meter dipole would either have to be a loaded vertical
> or a loaded dipole. I've got room for a 40' dipole - no
> larger.
>
> 30 & 12 meters do not interest me but 15 does - I'm
> thinking maybe I'll add 15 meter elements to my 20
> meter inverted V.
>

> My question - Am I right thinking that an antenna farm
> with resonant antennas would outperform a single large
> dipole and a tuner? My guess is yes.
>
> Also, anybody got good plans for an 80 m inverted,
> loaded V antenna? Would it be better to put the 15m
> dipole on that antenna vs the 20m V?
>
> Ken KG0WX
>
>
>

## 425. Re: Printing wire list from EZNEC?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-14 00:14:47 UTC
From: Chuck <wa7rai@raibeam.com>
Message-ID: <psjbd.4672$6P5.246@okepread02>
Source record: 88431

Richard Clark <kb7qhc@comcast.net> wrote in message
news:289pm0hj08ingtoebo6nt7agtur6381vdp@4ax.com...
> On Tue, 12 Oct 2004 15:44:02 -0700, "Chuck" <wa7rai@raibeam.com>
> wrote:
> >> >>>Nonsense! I have made the assertion - and
> >> >>>I continue to do so - that minninec and NEC
> >> >>>based programs cannot model my design
> >> >>>simply from their inability to simulate a
> >> >>>virtual bi-directional coaxial phasing/delay line.
> >> >>
> >> >>A "virtual bi-directional coaxial phasing/delay line."
> >> >>That's a good one. Very inventive.
> >
> >> > Either you're remarkably ignorant, or
> >> > you've made a failed attempt at being
> >> > clever... which is it?
> >
> >> I didn't make up that silly bafflegab, you did. As those
> >> things go, it was pretty good.
> >
> >Your reply is most revealing as to your
> >ignorance in this regard!
> >
> Hi Chuck,

Hi, Richard,
>
> It may be regarded as ignorance,

It may be regarded as ignorance when
one questions a simple term...

> especially when your claim is
> unsubstantiated

Not in the minds of users, or to
those who made confirmation
indepently.

> and demands that your proof is available only through
> a privileged knowledge.

Knowledge comes from experience...
anyone can achieve it if they truly had the
desire.

Getting off one's butt and performing
experiments works wonders in this
regard... :)

> However being ignorant is not the same as
> being stupid.

Agreed.

> The onus is upon you to show (resolve ignorance or
> exhibit it in your own thinking - there are no third options) how your
> claim is substantial - testimonial is insufficient.

Let me suggest, the onus is on you to
prove the claim is without substance
since you are the one making the
allegation. The design is time tested,
and I tire of closed minds.

If some folks wish to remain ignorant
in this regard, it's their loss, for they
only deny themselves a better way.

I have more important concerns in
my life do deal with now.

73,
Chuck, WA7RAI

>
> 73's
> Richard Clark, KB7QHC

## 426. Re: Printing wire list from EZNEC?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-14 00:17:11 UTC
From: Chuck <wa7rai@raibeam.com>
Message-ID: <psjbd.4673$6P5.1100@okepread02>
Source record: 88428

Wes Stewart <n7ws_@_yahoo.com> wrote in message
news:v4uqm0hc09gjgtd7rp0gjded4ffqt2i10f@4ax.com...
[snip]
>
>
> I'm curious.

I don't believe that's possible...

## 427. Re: Using AC Adapter in place of Antenna.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-14 01:51:07 UTC
From: kashe@sonic.net
Message-ID: <sqmrm0pi4u7klbppfdpebo7n6nv6truuba@4ax.com>
Source record: 88509

On Mon, 11 Oct 2004 15:24:55 -0700, "Joel Kolstad"
<JKolstad71HatesSpam@Yahoo.Com> wrote:

>"ends" <endsabruptly@yahoo.com> wrote in message
>news:83649000.0410111233.7d73341a@posting.google.com...
>>I have search far and wide for this but have come up empty handed. I
>> spent $25+ on a set of rabbit ears for my home set, and could not get
>> good reception no matter what I did. A friend told me to push the end
>> of an AC Adapter to the input of my co-ax cable, and set the plug
>> where ever I need to get the best reception. It worked! Better than
>> the rabbit ears. Has anyone ever heard of this before?

I hope ypu clipped the prongs off so someone doesn't plug it
in.

## 428. Re: balcony railing mount for DBS dish

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-14 02:26:16 UTC
From: kashe@sonic.net
Message-ID: <5uorm0p29268qdki588iueontk5s4t016u@4ax.com>
Source record: 88441
Cross-posted to: rec.radio.amateur.antenna,rec.video.satellite.dbs,rec.video.satellite.tvro,alt.dss.hack,alt.dbs.echostar.hack

On Tue, 12 Oct 2004 10:46:01 -0700, "Timothy Daniels"
<TDaniels@NoSpamDot.com> wrote:

>Your opinion may vary. But there are national building
>management and property ownership corporations which
>would love to set a precedent in their favor. Would an
>individual dish owner want to take them on in court?

Correct translation -- might makes right.

I know people in this situation who have gotten legal opinions
that they have the right to mount such devices. However they know that
there is little defense against the retaliation that was likely to
follow. Again, the money is on the side of the property owner.

## 429. Re: physical/intuitive understanding of RL/RC time constants?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-14 02:38:30 UTC
From: wrongaddress@att.net
Message-ID: <ad025737.0410131838.306de2f1@posting.google.com>
Source record: 88458
Cross-posted to: sci.electronics.basics,sci.physics,rec.radio.amateur.antenna

alanh_27@yahoo.com (Alan Horowitz) wrote in message
news:<1e3670a7.0410111511.47223a3b@posting.google.com>...

> when a current just starts flowing into a RL or RC circuit, how does
> the voltage "know" that it should be increasing exactly 63% during
> each time-constant period?
>
> And whence the number 63%?

It just turns out to be 63% if you add up all
the little voltage changes on the capacitor as it
charges during one time constant. The short basic
program below uses 10000 samples and keeps track
of the resistor voltage at each step and then prints
out the final capacitor voltage of 63%. The accuracy
can be improved by taking more samples. Change time
to a smaller value for a better approximation.

```
Voltage =1
Resistance =1
time = .0001
Limit = 1/time
For n = 1 to Limit
Current = Voltage/Resistance
Voltage = Voltage - (Current*Resistance*time)
Next n
Print "Capacitor voltage = "; (1-Voltage)*100;"%"

'Answer = 63.2139444%
```

-Bill

## 430. Re: Printing wire list from EZNEC?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-14 04:21:50 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <k6vrm0hfjcjc6g26o4723k1hvtkq3psku2@4ax.com>
Source record: 88444

On Wed, 13 Oct 2004 17:14:47 -0700, "Chuck" <wa7rai@raibeam.com>
wrote:

>> The onus is upon you to show (resolve ignorance or
>> exhibit it in your own thinking - there are no third options) how your
>> claim is substantial - testimonial is insufficient.
>
>Let me suggest, the onus is on you to
>prove the claim is without substance

Hi Chuck,

That is about as funny as when Art appeared here proclaiming the
marvels of his new invention - and then telling us it was our
responsibility to prove his claims. Can you guess how many years ago
that was?

I'm afraid you are in line behind cfa claims, eh claims, fractal
claims and the notable efficiency per unit length claims.

But as you have more important things to do, one wonders why you spend
so much time with these trivial issues?

73's
Richard Clark, KB7QHC

## 431. Re: Printing wire list from EZNEC?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-14 04:53:32 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <741sm05nksoltkpeicrdc0jeds4c87b1b5@4ax.com>
Source record: 88507

On Wed, 13 Oct 2004 09:37:58 -0400, "J. Mc Laughlin"
<jcm@power-net.net> wrote:
> Good reading. 73 Mac N8TT

Hi Mac,

I stopped after the obvious mis-application of the term end-fire. I
am spending 12 hour days in the field registering new voters - 280
today - and this "patent" clearly exhibits the pay-as-you-go mentality
of the PTO. In the field of financial planning this would be called
churning accounts.

73's
Richard Clark, KB7QHC

## 432. Re: 10 meter quad loop ant ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-14 07:37:43 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <b1qbd.13040$hK5.10948@newssvr15.news.prodigy.com>
Source record: 88520

'J.C.',
That's one of those "it depends" questions. It depends on if the loop is mounted vertically and can be 'pointed', or horizontally. Then it depends on how high it is above ground. So, the 'best' anyone can tell you is that there will be a difference, but not what that difference will be. I like loops and don't particularly care for verticals, so I think you'd see some improvement (that's scientific, ain't it? LOL)...
'Doc

## 433. Re: balcony railing mount for DBS dish

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-14 09:45:43 UTC
From: Timothy Daniels <TDaniels@NoSpamDot.com>
Message-ID: <A66dnVXXC6Na1_PcRVn-oQ@comcast.com>
Source record: 88505
Cross-posted to: rec.radio.amateur.antenna,rec.video.satellite.dbs,rec.video.satellite.tvro,alt.dss.hack,alt.dbs.echostar.hack

"Kain0o0" wrote:
> My cable was attached to pre-existing cable tv cable.
> I used black twisties to just attach it to it ,
> couldve been him being lazy , but i see your point
> about the exterior cable run

Knowing now what I do about HOAs and landlords,
he probably figured that since the cable was so
unobtrusive (blending in with the other cables)
he could always pretend he didn't see it. :-)

*TimDaniels*

## 434. Re: Discone and quadrifilar helix ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-14 11:51:22 UTC
From: Thierry <->
Message-ID: <416e6845$1@news.vo.lu>
Source record: 88514

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:10mrcc3bu0mtg16@corp.supernews.com...
> The discone would be better for local amateur VHF communication and
> listening to the aviation band. The quadrifilar helix would be better
> for receiving the weather satellite. If you can only have one antenna,
> you have to choose which applications you're willing to accept reduced
> performance with.
>
> Roy Lewallen, W7EL

OK Roy, I well understood.
I suspected well this purpose due to its vertical polarization. In fact I
was misleaded by the short radials placed at 45 deg on top. But it is common
and that doesn't differ from a ground plan vertical design, excepted it
offers a large bdw....

Thanks
Thierry, ON4SKY

>
> Thierry wrote:
>
> > This is to receive WX APT signal on 137 Mhz and sometimes to work on VHF
or
> > listen to avi band.
> > According you 'd it be interested or not at all to select a discone
instead
> > of the helix ?
> > There is no advantage of using a discone, or even drawbacks vs. the
helix,
> > excepted the price ?
> >
> > Thierry

## 435. Re: Where does the power go?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-14 12:19:59 UTC
From: fractenna@aol.com
Message-ID: <20041014081959.28660.00000785@mb-m05.aol.com>
Source record: 88429

>Where does my 100w go? is it lost as heat in the tuner?
>(my guess) Is it lost in the feedline due to high SWR at
>the apex?
>

No; the tuner has fairly good QF components: there is a reason your tuner has no huge fans or heat sinks.

Some lost as heat in coax from mismatch insertion loss. Much lost from ground losses; some power now goes straight up rather than at lower elevations.

73,
Chip N1IR

## 436. Re: Where does the power go?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-14 13:34:14 UTC
From: John Passaneau <jxp16@psu.edu>
Message-ID: <cklv8o$17e0$1@f04n12.cac.psu.edu>
Source record: 88432

"Ken Bessler" <kg0wx@NOSPAMyahoo.com> wrote in message
news:2t783cF1s7ukiU1@uni-berlin.de...
> Take a dipole, cut for 3.922. Put it up as an inverted V
> with the apex at 30' and the ends at 10'. Feedline is 100'
> of 450 ohm ladder line/12t 5-1/4" coax balun/30' rg58.
>
> Antenna works nice, esp at night.
>
> Now take the same setup and feed it with an L network
> autotuner, say an LDG AT100 pro and run it on 1.825
> mhz. Feeding the antenna as a marconi is not an option
> due to lack of ground area for radials.
>
> Where does my 100w go? is it lost as heat in the tuner?
> (my guess) Is it lost in the feedline due to high SWR at
> the apex?
>
> 73'd de Ken KG0WX
>
>
>
Hi Ken:

On 1.824MHz, 4.5 db of your power (3db equals 1/2 of the power) is lost in the feedline. I know that 450 ohm line is supposed to be so low loss that it doesn't matter, but a 80m dipole on 160m presents such a very bad match that even open wire line has loss. I would make your antenna as showing a load of about 10J -1250Ohms. Don't feel bad if you were feeding this with coax the excess loss due the miss-match would be over 20db. The 4.5db doesn't include the loss in the coax balun, and the tuner. According to the ARRL review of tuners on 160 with a SWR like that 25% of the power is lost in the tuner. These numbers were derived from modeling the antenna with EZNEC and the TL program that comes with the ARRL handbook. Other people with slightly different models will get slightly different numbers but the bottom line is a 80m dipole is a very bad antenna on 160m. You could be losing 1/4 of your power in the tuner and well over 1/2 of what's left in the feed line. But if its all you have the use it.

--
John Passaneau, W3JXP
Penn State University
w3jxp@arrl.net

## 437. Re: Where does the power go?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-14 14:42:24 UTC
From: Wes Stewart <n7ws_@_yahoo.com>
Message-ID: <ai1tm095co8btgqtc86t4d4plbprhdvqmg@4ax.com>
Source record: 88515

On Thu, 14 Oct 2004 07:01:36 -0500, "Ken Bessler"
<kg0wx@NOSPAMyahoo.com> wrote:

|Take a dipole, cut for 3.922. Put it up as an inverted V
|with the apex at 30' and the ends at 10'. Feedline is 100'
|of 450 ohm ladder line/12t 5-1/4" coax balun/30' rg58.
|
|Antenna works nice, esp at night.
|
|Now take the same setup and feed it with an L network
|autotuner, say an LDG AT100 pro and run it on 1.825
|mhz. Feeding the antenna as a marconi is not an option
|due to lack of ground area for radials.
|
|Where does my 100w go? is it lost as heat in the tuner?
|(my guess) Is it lost in the feedline due to high SWR at
|the apex?

Using readily available tools, Multinec, XLZIZL.xls and TLDetails.exe,
all available at www.qsl.net/ac6la I computed the following.

Two wires, fed at the junction with a split source:

Wire 1 coordinates (ft):

End 1 End 2
X Y Z X Y Z
0.000 -55.285 10.000 0.000 0.000 33.000

Wire 2 coordinates:

0.000 0.000 33.000 0.000 55.285 10.000

Resonant at 3.922 over average ground. At 1.825 MHz the feedpoint Z =
12.53 -j 1366.

I copied these values to XLZIZL and defined a feed network that
(beginning at the antenna) consists of 100' of Wireman type 553, 35'
of RG-58A, a series capacitor = 1754 pF and a shunt inductor = 2.14
uH.

Now, I don't know whether the LDG tuner will configure itself this way
or not, but this is the optimum solution. The input Z of this mess =
49.19 +j 0.4. SWR = 1.02

XLZIZL gives the total network loss as: ~9.0 dB.

To see where the losses come from we can first look at the L network and see that with the component Q's I used: Qc =500 Ql =200, the loss is only 0.09 dB.

The best way to see the line losses is to go to TLDetails and first select 100' of Wireman 553 and a load Z of 12.53 -j 1366.

The program shows that the total line loss is: 7.7 dB, most of it attributable to SWR. The input impedance of this line section is 5.58 +j2.11.

If we use this value for the load Z and change the line to RG-58A with length 35', we find that the loss is ~ 1.35 dB.

As a sanity check, we add the three losses 7.7 + 1.35 + .09 = 9.1 dB, just as was determined earlier.

So most of the power is burned up in the "low loss" ladderline!

## 438. Re: Discone and quadrifilar helix ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-14 16:04:11 UTC
From: Walter Maxwell <w2du@iag.net>
Message-ID: <7k7tm05ock3e15ahvum8fre38c8hse485g@4ax.com>
Source record: 88510

On Thu, 14 Oct 2004 11:37:00 GMT, "G.Beat" <nonow9mapsgb@no.comcast.spam> wrote:

>John Coppens ON6JC/LW3HAZ, posted a photo (NOAA 17) of a quadrifilar antenna
>on his web page.
>http://www.jcoppens.com/ant/qfh/index.en.php
>
>g. beat
>w9gb
>
>
>"Walter Maxwell" <w2du@iag.net> wrote in message
>news:0hsrm0hugsv2igj0g6hilm1e00d1n09t35@4ax.com...

the self-phasing characteristic the diameter of the radiating elements is
> crucial in obtaining the 90-degree relationship between the two bifilar
> elements, because the INDUCTANCE of the elements is the effective
> parameter in
> the phasing. The inductance of the short bifilar causes the current
> flowing in
> it to lead by 45 degrees, while the INDUCTANACE in the long bifilar causes
> its
> current to lag by 45 degrees. This phasing relationship requires the
> diameter of
> the radiating elements to be 0.0088 lambda in length for whatever
> frequency is
> used.

In the last sentence above the words 'in length' should be deleted. The
reference is only to the diameter of the radiator.

I also inadvertantely omitted reference to a photo of two QFH that uses self
phasing and infinite balun feed. In Chapter 22 of Reflections 2, appearing on my
web page at http://home.iag.net/~w2du.

See the photo in Fig 22-1 on Page 22-2. The QFH on the left is the wide-band
video 1.6 GHz antenna flying on all TIROS - N, NOAA polar orbiting wx
spacecraft.

Incidentally, the Astro Electronics Division of RCA designed and built all
TIROS spacecrafts 1 through 9, and all TIROS - N spacecrafts from 1973 thru
1986, when RCA was taken over by GE, and then sold to Lockheed, which has built
the TIROS-N's since the takeover. I was the lead engineer developing the QFH
antennas that are flying on all TIROS - N spacecrafts. I was also the sole
engineer who developed all the antennas flying on TIROS spacecrafts 1 thru 8,
and the 137 MHz 2-element phased array that transmitted the W XAPT signals on
TIROS 9.

Walt Maxwell, W2DU

## 439. Re: EH-antenna: sensation or fraude?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-14 16:21:33 UTC
From: jimp@specsol-spam-sux.com
Message-ID: <ckm92d$3ro$1@mail.specsol.com>
Source record: 88437

Walter Maxwell <w2du@iag.net> wrote:
> On 14 Oct 2004 08:46:50 -0700, k4wge@arrl.net (k4wge) wrote:

> >>
> >>
> >> And the crap begins to flow, now that classical physics has been slain.
> >>
> >> Ed
> >> wb6wsn
> >
> >Physics? You want physics? I'll show you physics :-)
> >
> >
> >"The voltage and current applied to a Hertz antenna are in phase,
> >therefore the E and H fields are not in phase, thus radiation does not
> >occur until a great distance from the antenna. A proper phase shift
> >network allows the Hertz
> >antenna to become an EH Antenna where a 90 degree phase delay between
> >the current and voltage applied to the antenna cause the E and H
> >fields to be in phase, therefore the EH antenna is able to transfer
> >power from the transmitter directly to radiation. This is the basis of
> >the EH Antenna patent."
> >
> >http://www.eh-antenna.com/library/EH_ANTENNA_DEFINITION.pdf

> I f there really is an issued patent on the EH antenna, the paragraph above is
> proof that the Patent Office examiner who approved the patent application for
> issuance was completely snowed by the applicant's patent attorney who wrote the
> application.

> This doesn't happen too often, but it does happen. Unless the patent examiner is
> extremely well versed in electromagnetic theory he could easily be persuaded
> that the EH principle is valid, while it is not.

> Walt Maxwell, W2DU

About the only thing the Patent Office will deny a patent on based on
science is perpetual motion mechines; all bets are off on anything else.

--
Jim Pennino

Remove -spam-sux to reply.

## 440. Re: EH-antenna: sensation or fraude?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-14 16:50:27 UTC
From: fractenna@aol.com
Message-ID: <20041014125027.16411.00004209@mb-m14.aol.com>
Source record: 88434

>
>This doesn't happen too often, but it does happen. Unless the patent examiner
>is
>extremely well versed in electromagnetic theory he could easily be persuaded
>that the EH principle is valid, while it is not.
>
>Walt Maxwell, W2DU
>

Who was the examiner?

They have some really great seasoned guys there in that department, and a
rolling list of rookies.

73,
Chip N1IR

## 441. Re: EH-antenna: sensation or fraude?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-14 17:54:49 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10mtfbbbrcsiue3@corp.supernews.com>
Source record: 88423

Hate to break the news, Walt, but it happens very, very often. Even years ago, when I was doing some consulting work on a patent case and read a couple of hundred antenna patents, there was a great deal of pseudo- and voodoo-science in issued patents. These days, it's rampant.

My favorite example is US patent #6,025,810, "Hyper-Light-Speed Antenna", but I'm sure even this is far from the most egregious.

Roy Lewallen, W7EL

Walter Maxwell wrote:
>
> I f there really is an issued patent on the EH antenna, the paragraph above is
> proof that the Patent Office examiner who approved the patent application for
> issuance was completely snowed by the applicant's patent attorney who wrote the
> application.
>
> This doesn't happen too often, but it does happen. Unless the patent examiner is
> extremely well versed in electromagnetic theory he could easily be persuaded
> that the EH principle is valid, while it is not.
>
> Walt Maxwell, W2DU
>

## 442. HF2V roof mounted

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-14 17:56:17 UTC
From: t_ashland@yahoo.com
Message-ID: <6e6aeba9.0410140956.1dc9c86@posting.google.com>
Source record: 88450

I have decided to roof mount my Butternut HF2V on a 10 foot tower on my house. It is a tip over tower that should make working on it pretty easy. I'm wondering if I need anything special about mounting the HF2V on the tower itself. I've seen references to a RMK-II kit for roof mounting, but it looks like nothing more than a small tripod and a radial kit. Do I need some kind of sleeze (tubing) to slide the base of the HF2V into? I'm sure some of you have addressed this in the past. I'd like any suggestions. I plan to put resonant radials sloped away from the base and I also plan on guying it with some light weight rope or fishing line above the loading coils.
Thanks and 73,
Terry, WK0F

## 443. Re: EH-antenna: sensation or fraude?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-14 19:05:29 UTC
From: Walter Maxwell <w2du@iag.net>
Message-ID: <i7jtm0hgn55hc3ot4l1emvjh2s2mqne9fp@4ax.com>
Source record: 88445

Sorry to hear that, Roy. I was very much involved with the RCA Patent Dept in
my early years with RCA, 1949 to 1957. During that time the US Patent Office
examiners were smart and tough. A patent used to be worth something.

Walt

On Thu, 14 Oct 2004 10:54:49 -0700, Roy Lewallen <w7el@eznec.com> wrote:

>Hate to break the news, Walt, but it happens very, very often. Even
>years ago, when I was doing some consulting work on a patent case and
>read a couple of hundred antenna patents, there was a great deal of
>pseudo- and voodoo-science in issued patents. These days, it's rampant.
>
>My favorite example is US patent #6,025,810, "Hyper-Light-Speed
>Antenna", but I'm sure even this is far from the most egregious.
>
>Roy Lewallen, W7EL
>
>Walter Maxwell wrote:
>>
>> I f there really is an issued patent on the EH antenna, the paragraph above is
>> proof that the Patent Office examiner who approved the patent application for
>> issuance was completely snowed by the applicant's patent attorney who wrote the
>> application.
>>
>> This doesn't happen too often, but it does happen. Unless the patent examiner is
>> extremely well versed in electromagnetic theory he could easily be persuaded
>> that the EH principle is valid, while it is not.
>>
>> Walt Maxwell, W2DU
>>

## 444. Re: EH-antenna: sensation or fraude?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-14 19:57:21 UTC
From: Dave <noone@nowhere.com>
Message-ID: <B7ednXl4duGwR_PcRVn-tw@crocker.com>
Source record: 88421

"k4wge" <k4wge@arrl.net> wrote in message
news:7b671b4e.0410140746.7f6f74e5@posting.google.com...
> >
> >
> > And the crap begins to flow, now that classical physics has been slain.
> >
> > Ed
> > wb6wsn
>
> Physics? You want physics? I'll show you physics :-)
>

I prefer one of these:

Physics? Physics?!? we don't need no stinking Physics!

or

The Physics? You want the Physics? You can't handle the Physics!

## 445. Re: Self made antenna for CB

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-14 20:01:51 UTC
From: "G.Beat" <nonow9mapsgb@no.comcast.spam>
Message-ID: <PWAbd.182978$wV.41496@attbi_s54>
Source record: 88508

"Dan/W4NTI" <w4nti@get rid of this mindspring.com> wrote in message
news:pi_9d.13740$gs1.8817@newsread2.news.atl.earthlink.net...
> Get yourself a empty can of coffee. Place a light bulb in it. Hook the
> coax to it. Remember the shield goes to the negative of the bulb.
>
> Seal the can with lead solder.
> Bury 15 feet underground.
>

Is this called a squirrel antenna, bury it and forgot where you placed it?

# 446. Re: balcony railing mount for DBS dish

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-14 21:42:28 UTC
From: Fat Bastard <a_fat_bastard-NOSPAM-@hotmail.com>
Message-ID: <ckmrpv0p89@news1.newsguy.com>
Source record: 88517
Cross-posted to: rec.radio.amateur.antenna,rec.video.satellite.dbs,rec.video.satellite.tvro,alt.dss.hack,alt.dbs.echostar.hack
Body handling: Inline uuencoded payload not displayed: audio.gif; Inline uuencoded payload not displayed: pixt.gif

"Timothy Daniels" <TDaniels@NoSpamDot.com> wrote in message
news:9padnYLFiaH01PPcRVn->
>
> Yes, they are not law. But the CC&Rs are legal contracts
> between the owners and the Home Owners Association,
> and they are legally binding for those parties. Unless the
> CC&Rs conflict with state or federal law, they prevail. In the
> absence of federal law or ruling stating that railings are part
> of the Exclusive Use area, one has only the CC&Rs for a
> definition of what is "balcony".

Technically, yes, but you are probably also aware that any contract that isn't a LEGAL action is NOT lawful, or binding. You can't enforce a contract that is not legal to begin with. Now, I'm not saying that a contract of this nature is or isn't legal, but it is questionable in my opinion, and I'm sure in many lawyers opinions as well (the opposite is certainly true as well though). I personally think that doors and windows to your privately owned "unit" are YOURS, they do NOT belong to the association.

>
> Nonsense. By that logic there can't exist a walkway
> without a railing, or a patio without a fence.

Walkways have never needed a railing, unless they are above ground level (2nd through xxx stories high) and are required for "safety" to prevent someone from falling. A walkway is simply a passage for walking.

Main Entry: walk&#65533;way
Pronunciation: 'wok-"wA
Function: noun
: a passage for walking : WALK

Note, there is NO REFERENCE to a railing. I've never known of a walkway to include a railing as part of the definition. Nor have I known the definition of Patio to have a fence.

Main Entry: pa&#65533;tio
Pronunciation: 'pa-tE-"O also 'p&#65533;-
Function: noun
Inflected Form(s): plural pa&#65533;ti&#65533;os
Etymology: Spanish
1 : COURTYARD; especially : an inner court open to the sky
2 : a recreation area that adjoins a dwelling, is often paved, and is adapted especially to outdoor dining

no reference to a fence here either. (courtyard however does reference being an "enclosure")

My patio has never had a fence around it, and I don't know anyone else with a fence around their patio (unless their patio borders a pool, and they were required by law to have a separate fence around it). Most PATIO's are open areas, possible COVERED, but not "fenced". My patio is OPEN (not covered yet), so i can walk out into the yard anytime I want. My YARD is bordered by a wall though.

Now, note the definition of BALCONY:

Main Entry: bal&#65533;co&#65533;ny
Pronunciation: 'bal-k&-nE
Function: noun
Inflected Form(s): plural -nies
Etymology: Italian balcone, from Old Italian, large window, of
Germanic origin; akin to Old High German balko beam -- more at BALK
1 : a platform that projects from the wall of a building and is
enclosed by a parapet or railing
2 : an interior projecting gallery in a public building (as a theater)
- bal&#65533;co&#65533;nied /-nEd/ adjective

See how it specifically states "and is enclosed by a parapet or RAILING". So, without a railing, it is not really a "balcony", but rather a "patio". :)

> > The railing is part of the balcony (a protective barrier
> > to keep you from falling off said balcony),
>
>
> If your reiterative definition were right, "said balcony"
> would already have a railing - by your definition of
> "balcony" - and it wouldn't need another railing.

I said a balcony already INCLUDES a railing.

>
> By your reasoning, doors aren't structural, either.
> But doors ARE part of the common area - owned
> and maintained by the HOA - and they are certainly
> NOT part of the Unit. Similarly, balcony railings
> are part of the structure - like walls - and not part
> of the Unit.

Doors aren't structural, and I personally would argue whether my DOOR to MY PROPERTY belongs to anyone other than myself. I have exclusive use of my door (if you come and remove my door, or you enter my door without permission, you are TRESPASSING on private property, and are subject to arrest). In your CC&R's you may have a rule that states the door is part of the HOA, and not owned by the property owner, but it would be WRONG, and I would challenge it in court any day of the week. Now, it would be understandable if the door is covered under the HOA agreement as far as

PAINT, or DESIGN goes, but i personally think it's BULLSHIT to dictate what people can do with what belongs to them, and I'd challenge it if i felt the need (if I painted my door and someone complained, I'd tell them to bugger off, and sue me if they feel they have a case). I personally wouldn't go against a particular communities rules on paint colors, or at least not get approval for any color not already on the building, because it's not nice to put some awful color on the building that is shared with others, but on the other hand it's really none of their business, and they don't have to look at it if they don't like it. I'm sick of all these HOA's dictating what people can and can't do, just because a couple of schmucks don't like something.

> > Our CC&R's specifically state that the balcony is
> > EXCLUSIVE USE area. It described COMMON areas
> > as those that can be used by ANYONE, not just the
> > OWNER of the unit. The balcony is PRIVATE PROPERTY,
> > and cannot be regulated by the "public" (commoners). lol
>
>
> Yes, yes. But do your CC&Rs include the railing
> in its definition of "balcony"?

By definition of Balcony, YES. A balcony INCLUDES the rail, by every known definition. it's not a balcony without the rail. It's a porch/patio without the rail. A dangerous one at that, if it's several floors up. :)

> "Structural" does not mean "supportive of the building".
> A railing is as structural as a door or a fence or a window.
> It is part of the physical building that defines the airspaces
> which are units within a condo building. If your house
> (which you said you live in) is part of a community having
> commonly-owned property, the definition of "Unit" may
> be different, but for a condo building containing multiple
> units, the "Units" are airspaces (plus, perhaps, some
> interior walls), but NOT the exterior doors, NOT the windows,
> NOT the patio fences, and NOT the balcony railings.

WRONG. Structural clearly defines "Structure", as in structural stability. See below.

Main Entry: struc&#65533;tur&#65533;al
Pronunciation: 'str&k-ch&-r&l, 'str&k-shr&l
Function: adjective
1 : of or relating to the physical makeup of a plant or animal body
2 a : of, relating to, or affecting structure <structural stability> b : used in building structures <structural clay> c : involved in or caused by structure especially of the economy <structural unemployment>
3 : of, relating to, or resulting from the effects of folding or faulting of the earth's crust : TECTONIC
4 : concerned with or relating to structure rather than history or comparison <structural linguistics>

- struc&#65533;tur&#65533;al&#65533;ly adverb

A railing is not "structural" in most cases. It is decorative, and protective.

Main Entry: 2rail
Function: transitive verb
: to provide with a railing : FENCE

Main Entry: 1fence
Pronunciation: 'fen(t)s
Function: noun
Usage: often attributive
Etymology: Middle English fens, short for defens defense
1 archaic : a means of protection : DEFENSE
2 : a barrier intended to prevent escape or intrusion or to mark a boundary; especially : such a barrier made of posts and wire or boards
3 : FENCING 1
4 a : a receiver of stolen goods b : a place where stolen goods are bought
- fence&#65533;less /-l&s/ adjective
- fence&#65533;less&#65533;ness noun
- on the fence : in a position of neutrality or indecision

Hmm, english definitions of everything seem to support my argument so far. As I said, I would challenge any HOA's on these any day of the week.

> CC&Rs are legal and binding contracts - like any other
> civil contracts - and they are legally enforceable unless
> they contradict state or federal laws - like any other
> civil contracts. They are NOT merely "suggestions".

To me, they are merely suggestions. Unless SPECIFIC (if your CC&R specifically states not allowing the use of the railing to mount anything to, then it's BS, and you cannot restrict it. If your CC&R states nothing can be bolted to the STRUCTURE or outside walls, then that is the WALLS or STRUCTURE of the building, NOT the railing of my personal balcony), it isn't covered, nor is it "legally binding". To be legally binding, it must be legally based, but you cannot impose your "LAW" on someone elses private property.

> And we are discussing "outer", as in outer surface
> of a balcony railing. The inside of a railing is like
> the inside of a door - it's common area, but it's
> Exclusive Use common area. But the *outside* is
> like the outside of a door - it's just simply
> Common Area without exclusivity. And like a door,
> you can't attach things to the outside surface of a
> balcony railing

Balcony is owned by me, it's mine, i'll attach to the railing (part of the balcony) if i want to, inside or out. That's my opinion, and the definition of balcony supports my opinion. The outside of the railing is not common area, because nobody else has access to it (it's hanging out in the air, 20 or more feet above the ground, and is my private, exclusive area, that you cannot enter, or interfere with, without proper authority from me). Again, my opinion, and supported by definition. Some judges may agree, some may not, but I certainly would be willing to challenge it if it came to that.

>
> Our CC&Rs are quite similar to those of others
> in the area which I've seen when it comes to
> defining what is "Unit" and what is "Common Area".
> Your CC&Rs are probably different due to your
> property being a detached house on land that
> solely belongs to you.

I personally don't have ANY CC&R's here. the property I'm on right now is MINE, exclusively, and has no HOA governing it. Some idiots tried to start one up, but nobody would around here would agree to it, so it seems to have drifted away like so many other stupid things people try to do just to force their own beliefs or opinions on others. I was speaking of the rules and regs of the properties we've managed, or worked for, NOT for my own personal and private property that I am located on right now.

>
> Most of the resistance that most building owners
> and HOAs have to DBS dishes is due to the
> precedent that they set regarding attachment of
> objects - any kind of objects - to the exterior of the
> building without regard to sightliness or safety or
> susceptibility to water damage from holes being
> drilled. Once an Association allows something
> that it isn't forced to allow by law, it can be used
> as a precedent for attaching all kinds of other
> crap that most people may find offensive or which
> may cause eventual (or even immediate) damage
> to the building. By painful experience, HOAs have
> found that the way to keep the peace is to leave
> the buildings the way they were built - unfestooned.
> Once attachments are allowed, the genie is out
> of the bottle, and decades of bickering ensue.

I agree with you there, entirely. It does open decades of bickering. Just look at us here. LOL

> In our HOA's case, we kept everyone happy by
> providing a community dish that anyone can
> use by just shifting their coaxial cable to feed off
> its amplifier (and stacker and splitter tree). So
> far, everyone is satisfied with DirecTV without
> HD. The 2 residents who need DishNet's foreign
> language programming fortunately have a view of

> Dish's satellites from their patios and they've
> attached their dishes to the inside of their patio
> fences. We put the community dish in because
> a very good case was made that the cost of the
> system was less than the improvement in our
> property values by its addition, and it keeps the
> peace. I strongly suggest that such cases be
> presented to the governing boards of HOAs that
> have been resistant to dishes rather than try to
> fight them or just bitch and moan about how
> assinine they are.

That's great that you put in a community dish, especially if it's provided FREE OF CHARGE, but not all buildings offer that, nor do they all have plans to. Also, by only allowing your own dish/provider you are creating a monopoly, and are infringing on others rights. It is not legal to force anyone to utilize your system if they prefer another. I certainly don't want DTV, so I'd want to install my own dish, provided I have an area where I can do so, which faces the right direction. Now, if you offer every system, cable, dtv, dish, etc., then that would cover all bases. I know that there have been cases where the apt/condo/etc. has tried to force the people to use their provided cable access, and they were challenged, and the owners were allowed to put up dishes. It's not right to limit someone to YOUR preference of providers.

[Inline uuencoded payload not displayed: audio.gif]

[Inline uuencoded payload not displayed: pixt.gif]

## 447. Re: physical/intuitive understanding of RL/RC time constants?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-14 21:43:46 UTC
From: John Larkin <jjlarkin@highSNIPlandTHIStechPLEASEnology.com>
Message-ID: <37stm09gp24iut0p6m6d686m8b77dl78kj@4ax.com>
Source record: 88459
Cross-posted to: sci.electronics.basics,sci.physics,rec.radio.amateur.antenna

```
On Thu, 14 Oct 2004 22:33:03 -0700, "john jardine"
<john@jjdesigns.fsnet.co.uk> wrote:

>
>"John Larkin" <jjlarkin@highlandSNIPtechTHISnologyPLEASE.com> wrote in
>message news:6anrm0h3etrm722a523g21hlvlfgjffu8l@4ax.com...
>> On 11 Oct 2004 16:11:16 -0700, alanh_27@yahoo.com (Alan Horowitz)
>> wrote:
>>
>> >when a current just starts flowing into a RL or RC circuit, how does
>> >the voltage "know" that it should be increasing exactly 63% during
>> >each time-constant period?
>> >
>> >And whence the number 63%?
>>
>>
>> How about this:
>>
>> Charge a 1 farad capacitor to 1 volt and slap a 1 ohm resistor across
>> it. The resistor current is 1 amp, so the cap discharges, and the
>> voltage is at first declining at a rate of 1 volt per second. But
>> 1/100 of a second later, the voltage is 0.99 volts, so the current is
>> only 0.99 amps, so the rate of discharge is only 0.99 volts per
>> second.
>>
>> So we write a Basic program:
>>
>> v = 1 ' charge the cap
>>
>> for t = 1 to 100 ' then, for 1 second at 0.01 sec steps,
>>
>> v = v - 0.01 * v ' discharge the cap by 1%
>>
>> next
>>
>> print v ' voltage is this, 1 second later
>>
>>
>> which simulates what I was doing above, but for a full second. The
>> value of v at the end is 0.36603 volts. That's close to 1/e, not exact
>> because I took 100 discrete steps, as an approximation to
>> continuous-time math. With 1000 steps, simulating 1 second of
>> discharge in 1 millisecond steps, you get 0.367700, even closer.
```

>>
>> 'e' is just nature's answer to a natural discharge curve.
>>
>> John
>>
>>
>Egads!. You've just given away the secret of Spice Transient Analysis. The
>programmers will be calling for you with torches ablaze.

Hell, the average programmer couldn't set himself on fire.

>Why is it that if anyone wants to *clearly* explain an algorithm or
>sequential idea, they'll use "Basic" or a very Basic looking 'Pseudo-code',
>yet most programmes seem written in "C".
>It just isn't logical.
>regards
>john

Actually, I've done a lot of pll and control system simulation in
Basic. I really began using an HP 9100 desktop calculator (for
steamship throttle control system simulation), graduated to FOCAL,
then RSTS/E Basic+, QuickBasic, and now PowerBasic.

I agree, C isn't logical. Why this bizarre and ugly hack of a PDP-11
assembler got to be the programming standard is beyond me. We're
paying the price big time.

John

## 448. Re: Printing wire list from EZNEC?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-14 21:56:15 UTC
From: Chuck <wa7rai@raibeam.com>
Message-ID: <VyCbd.4733$6P5.874@okepread02>
Source record: 88456

Richard Clark <kb7qhc@comcast.net> wrote in message
news:k6vrm0hfjcjc6g26o4723k1hvtkq3psku2@4ax.com...
> On Wed, 13 Oct 2004 17:14:47 -0700, "Chuck" <wa7rai@raibeam.com>
> wrote:
>
> >> The onus is upon you to show (resolve ignorance or
> >> exhibit it in your own thinking - there are no third options) how your
> >> claim is substantial - testimonial is insufficient.
> > >
> > >Let me suggest, the onus is on you to
> > >prove the claim is without substance
> >
> > Hi Chuck,
> >
> > That is about as funny as when Art appeared here proclaiming the
> > marvels of his new invention - and then telling us it was our
> > responsibility to prove his claims. Can you guess how many years ago
> > that was?

Hi Richard,

It is my opinion - and only an opinion -
that Art's antenna did achieve critical
coupling... and perhaps yet another
case where the model failed to agree
with empirical observations...

> I'm afraid you are in line behind cfa claims, eh claims, fractal
> claims and the notable efficiency per unit length claims.
>
> But as you have more important things to do, one wonders why you spend
> so much time with these trivial issues?

A few hours a month or less is 'much'
time? Surely you jest... :)

In any case, since you have no first-
hand experience with my design, all you
can offer is mere opinion - the antithesis
of fact.

Since my design can stand on its
established record, the onus is on you
to provide something of real substance
- say, empirical data - to support your
opinion.

73,
Chuck, WA7RAI

>
> 73's
> Richard Clark, KB7QHC

# 449. Re: Short avi clip of me fucking a goat. Enjoy

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-14 22:29:38 UTC
From: Dave <DevarimNOSPAM@hotmail.com>
Message-ID: <ef5e635be65237c14e67d48c6392adc5@news.meganetnews.com>
Source record: 88435
Cross-posted to: rec.radio,rec.radio.amateur,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy

Come on - even if it wasn't painfully obvious this is a virus,
why on EARTH would ANYONE want to download a
file like that? Can you Romainian fuckwits not at least tempt
the stupid with Britney Spears or J Lo?... a GOAT?

Ho hum. What is virus spam coming to anyway.... makes
ya long for the days of Anna Kournikova....

<gcameron@nc.rr.com> wrote in message
news:j4vbd.6105$Fe6.1599089@news4.srv.hcvlny.cv.net...
> Wicked. Check Attached file
>
>

---

>
>
> #,`````
> `(`````````!'

## 450. Re: Another lie...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-14 22:33:23 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10mtvllh2dgf0b8@corp.supernews.com>
Source record: 88440

Chuck wrote:
> Roy Lewallen <w7el@eznec.com> wrote in message
> news:10mrbqpn5n2tg0c@corp.supernews.com...
>
>>...pirated copy of EZNEC.
>
>
> That is an absolute lie!
>
> My disk is an original - with a large, black,
> bold, italicized EZNEC at the top of its
> label - and the party from whom I acquired
> it, gave it to me with your full knowledge
> and approval. I can only assume this lie is
> an egregious and deliberate attempt on
> your part to defame. I will not discuss this
> further in public.

I'll take your word for it, and apologize. You had claimed long ago that the program was given or sold to you, but for reasons of your own you would never tell me from whom. (Although I certainaly approve of such transfers, I never gained knowledge of whom the transfer was from.) In my posting of Sept. 26, 1997 on this newsgroup, I said:

> I don't generally give support to someone who's not a registered user,
> but in this case I guess it's necessary. (You still haven't sent me
> the name of the person who gave you the program, so I can transfer the
> ownership to you from him.)

Because you never furnished that information, I assumed that you had acquired it illicitly.

If you'll email me the name or call of the person from which you acquired it and the amount you paid, I'll promptly send you a full refund, in accordance with my guarantee. You're obviously not a satisfied user.

>
>
>> > I made Chuck an offer a while back, as follows: That if he has the
>> > Raibeam tested at a certified antenna range and the results show a
>> > free-space gain of at least 5.5 dBd (7.65 dBi) with simultaneous 25 dB
>> > or greater f/b ratio, I'll pay the test fee. This is performance less
>> > than he claims and less than he claims his model shows. But so far he
>> > hasn't taken me up on the offer.
>>

>
>
> It's rather moot, now that I am no longer in
> business. However, If it's your desire to
> spend money to embarrass yourself, I
> won't argue.
>
> There were two reasons why I let your offer
> slide. First, I was unaware of any testing
> facilities in my area, and second, I was
> struggling to meet customer demand and
> could not justify spending the time to
> develop a unit for UHF, since it was my
> understanding that most testing facilities
> could not accommodate frequencies lower
> than 100 MHz or so.
>
> I've since learned that the US Army testing
> range at Fort Huachuca in Tucson, AZ is
> open to civilian testing, and they can
> accommodate frequencies as low as 50
> MHz.
>
> My wife will finish her chemotherapy and
> radiation treatments in March, and since
> she is quite ill, I cannot foresee my being
> available until after that time.
>
> Allowing say 30 days or so for me to
> prepare an antenna, I invite you to make
> the arrangements in Tucson - say April -
> May, 2005 or so - and I will be more
> than happy to join you there.
>
> Is this agreeable?

No, you'll have to make the arrangements.

Determine the cost of the test. I suggest that we find someone who is willing and we both can trust to whom I'll send the money the test will cost, as proof of my willingness and ability to pay the test fee if the antenna meets the criteria. Let me know when the test is to be done, and I'll come down and observe. The person who pays will have the legal right to make the results public. I agree in advance to do so if I pay; I expect you to do likewise.

Roy Lewallen, W7EL

## 451. Re: Half sloper mounting

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-14 22:54:57 UTC
From: Bill Ogden <wogden@attglobal.net>
Message-ID: <5tDbd.8778$Fe6.2983708@news4.srv.hcvlny.cv.net>
Source record: 88512

Thank you (various people) for the comments about half sloper attachment points. I think the result is that the half sloper should be attached as high as possible on my small (55') tower. (It is intended for 160-40 meters.)

Bill
W2WO

## 452. Re: Another lie...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-14 23:12:13 UTC
From: k3bu@aol.comNoUsama
Message-ID: <20041014191213.01302.00002249@mb-m04.aol.com>
Source record: 88516

W7EL wrote:

>> > I made Chuck an offer a while back, as follows: That if he has the
>> > Raibeam tested at a certified antenna range and the results show a
>> > free-space gain of at least 5.5 dBd (7.65 dBi) with simultaneous 25 dB
>> > or greater f/b ratio, I'll pay the test fee. This is performance less
>> > than he claims and less than he claims his model shows. But so far he
>> > hasn't taken me up on the offer.
>>

Ken, K7GCO got bunch of RAIbeams and put them up, wrote glowing review for 73 Mag. He was impressed with the performance and wanted to figure out why is it so. He very carefully inserted dimensions into EZNEC model and could not get agreement. He had to go down to 48. 5 MHz in EZNEC to obtain similar pattern and parameters as real antenna resonant at 51.25 MHz.

So, maybe modeling doesn't "see" the dual driven elements and critical coupling well? It is amusing to see the "experts" defending unmistakability of software (loading coil case etc.)

Yuri, K3BU.us
can we all get alone?

## 453. Re: Another lie...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-14 23:23:56 UTC
From: fractenna@aol.com
Message-ID: <20041014192356.21321.00001832@mb-m15.aol.com>
Source record: 88454

>> ...pirated copy of EZNEC.
>
>That is an absolute lie!
>
>My disk is an original - with a large, black,
>bold, italicized EZNEC at the top of its
>label - and the party from whom I acquired
>it, gave it to me with your full knowledge
>and approval. I can only assume this lie is
>an egregious and deliberate attempt on
>your part to defame. I will not discuss this
>further in public.
>
>> > I made Chuck an offer a while back, as follows: That if he has the
>> > Raibeam tested at a certified antenna range and the results show a
>> > free-space gain of at least 5.5 dBd (7.65 dBi) with simultaneous 25 dB
>> > or greater f/b ratio, I'll pay the test fee. This is performance less
>> > than he claims and less than he claims his model shows. But so far he
>> > hasn't taken me up on the offer.
>>
>
>It's rather moot, now that I am no longer in
>business. However, If it's your desire to
>spend money to embarrass yourself, I
>won't argue.
>
>There were two reasons why I let your offer
>slide. First, I was unaware of any testing
>facilities in my area, and second, I was
>struggling to meet customer demand and
>could not justify spending the time to
>develop a unit for UHF, since it was my
>understanding that most testing facilities
>could not accommodate frequencies lower
>than 100 MHz or so.
>
>I've since learned that the US Army testing
>range at Fort Huachuca in Tucson, AZ is
>open to civilian testing, and they can
>accommodate frequencies as low as 50
>MHz.
>
>My wife will finish her chemotherapy and
>radiation treatments in March, and since

>she is quite ill, I cannot foresee my being
>available until after that time.
>
>Allowing say 30 days or so for me to
>prepare an antenna, I invite you to make
>the arrangements in Tucson - say April -
>May, 2005 or so - and I will be more
>than happy to join you there.
>
>Is this agreeable?
>
>Chuck, WA7RAI
>

Chuck,

I am sorry to hear that another individual here is allegedly making false statements.

I, personally, wish you well, and I am very sorry to hear about your wife's illness, and wish her a speedy recovery.

I appreciate that you are a professional, and as one professional to another, I want to point out that you are an honorable person. I am of the opinion that we should all show you the proper respect. I am sorry if that is not, apparently, being shown by a very few.

Sierra Vista is a beautiful place, and the Fort has some cool antenna stuff. They might go down below 50 MHz, BTW.

My best wishes to you; been a long time.

73,
Chip N1IR

## 454. Re: balcony railing mount for DBS dish

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-14 23:30:59 UTC
From: Fat Bastard <a_fat_bastard-NOSPAM-@hotmail.com>
Message-ID: <ckn25d0120j@news1.newsguy.com>
Source record: 88518
Cross-posted to: rec.radio.amateur.antenna,rec.video.satellite.dbs,rec.video.satellite.tvro,alt.dss.hack,alt.dbs.echostar.hack

probably not at their Nazi-esque complex. ;)

"Gary" <satmaverick@REMOVEMEhotmail.com> wrote in message
news:%VBbd.101922$a41.96803@pd7tw2no...

> Can you drill for a door eye viewer or mount a knocker or even a hook for
a
> Christmas decoration on the outside of your door?
>
>

## 455. Re: balcony railing mount for DBS dish

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-14 23:46:03 UTC
From: kashe@sonic.net
Message-ID: <6q3um0p4rt57i6g9ib749f4ia3r2o45he7@4ax.com>
Source record: 88433
Cross-posted to: rec.radio.amateur.antenna,rec.video.satellite.dbs,rec.video.satellite.tvro,alt.dss.hack,alt.dbs.echostar.hack

On Wed, 13 Oct 2004 17:07:29 -0400, "superskinnyguy"
<expressvuclown@gmail.com> wrote:

>
>"Fat Bastard" <a_fat_bastard-NOSPAM-@hotmail.com> wrote in message
>news:ckk480075m@news3.newsguy.com...
>> "Timothy Daniels" <TDaniels@NoSpamDot.com> wrote in message
>> news:pJudnUX0lqdjbvHcRVn-jg@comcast.com...
>
>
>If you sign a piece of paper when you move saying you'll abide by
>regulations of the building as is most often the case, then they aren't
>suggestions anymore. It's a legally binding contract.

Some terms of the contract can be invalidated by other laws.
For instance the CC&Rs in the Wsstlake area of Daly City, CA, which
stated that an owner could not sell his house to a person of color.
There is a good chance that FCC rulings supersede most CC&Rs.

## 456. Re: Another lie...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-15 00:00:47 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10mu4pihhv8nb2a@corp.supernews.com>
Source record: 88427

Yuri Blanarovich wrote:
>
> Ken, K7GCO got bunch of RAIbeams and put them up, wrote glowing review for 73
> Mag. He was impressed with the performance and wanted to figure out why is it
> so. He very carefully inserted dimensions into EZNEC model and could not get
> agreement. He had to go down to 48. 5 MHz in EZNEC to obtain similar pattern
> and parameters as real antenna resonant at 51.25 MHz.
>
> So, maybe modeling doesn't "see" the dual driven elements and critical coupling
> well? It is amusing to see the "experts" defending unmistakability of software
> (loading coil case etc.)

I'm sure you're glad, as I am, that Chuck has finally accepted my offer and agreed to have a real, professional test done, after something like 8 years. The results of the test should put to rest any speculation about this issue. I'm looking forward to the test and seeing the test results.

I get feedback from some of my professional customers who have the capability to test the antennas they analyze with EZNEC. They report very good agreement between analysis and measurement. Of course, most of them are real pros in both modeling and measurement. Given the choice of believing their results or Ken's and Chuck's, I go for theirs. Even though you might not consider those folks to be "experts", I do.

But by all means, let's look at the test results -- unless you believe that "critical coupling" results in radiation that conventional test ranges can't detect but hams can. . .

Roy Lewallen, W7EL

## 457. Re: Another lie...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-15 00:13:34 UTC
From: Wes Stewart <n7ws_@_yahoo.com>
Message-ID: <6s3um09a72c1q2m8f82qsqohesg9k1siqq@4ax.com>
Source record: 88442

On Thu, 14 Oct 2004 15:33:23 -0700, Roy Lewallen <w7el@eznec.com>
wrote:

|Chuck wrote:
|> Roy Lewallen <w7el@eznec.com> wrote in message
|> news:10mrbqpn5n2tg0c@corp.supernews.com...
|>
|>>...pirated copy of EZNEC.
|>
|>
|> That is an absolute lie!
|>
|> My disk is an original - with a large, black,
|> bold, italicized EZNEC at the top of its
|> label - and the party from whom I acquired
|> it, gave it to me with your full knowledge
|> and approval. I can only assume this lie is
|> an egregious and deliberate attempt on
|> your part to defame. I will not discuss this
|> further in public.
|
|I'll take your word for it, and apologize. You had claimed long ago that
|the program was given or sold to you, but for reasons of your own you
|would never tell me from whom. (Although I certainaly approve of such
|transfers, I never gained knowledge of whom the transfer was from.) In
|my posting of Sept. 26, 1997 on this newsgroup, I said:
|
| > I don't generally give support to someone who's not a registered user,
| > but in this case I guess it's necessary. (You still haven't sent me
| > the name of the person who gave you the program, so I can transfer the
| > ownership to you from him.)
|
|Because you never furnished that information, I assumed that you had
|acquired it illicitly.
|
|If you'll email me the name or call of the person from which you
|acquired it and the amount you paid, I'll promptly send you a full
|refund, in accordance with my guarantee. You're obviously not a
|satisfied user.
|
|>
|>
|>> > I made Chuck an offer a while back, as follows: That if he has the
|>> > Raibeam tested at a certified antenna range and the results show a

|>> > free-space gain of at least 5.5 dBd (7.65 dBi) with simultaneous 25 dB
|>> > or greater f/b ratio, I'll pay the test fee. This is performance less
|>> > than he claims and less than he claims his model shows. But so far he
|>> > hasn't taken me up on the offer.
|>>
|>
|>
|> It's rather moot, now that I am no longer in
|> business. However, If it's your desire to
|> spend money to embarrass yourself, I
|> won't argue.
|>
|> There were two reasons why I let your offer
|> slide. First, I was unaware of any testing
|> facilities in my area, and second, I was
|> struggling to meet customer demand and
|> could not justify spending the time to
|> develop a unit for UHF, since it was my
|> understanding that most testing facilities
|> could not accommodate frequencies lower
|> than 100 MHz or so.
|>
|> I've since learned that the US Army testing
|> range at Fort Huachuca in Tucson, AZ is
|> open to civilian testing, and they can
|> accommodate frequencies as low as 50
|> MHz.

Fort Huachuca is not located in Tucson, it is located at Sierra Vista,
AZ, approximately 90 miles SE of Tucson.

Some of the capabilities are listed here:

http://www.epg.army.mil/Test_Beds/ATF.htm

As an aside, I have tested under the ARC range and have been to the
top of the "Red Tower" just to look around. Quite a view! I've seen
photos of an M1-A1 tank mounted on the positioner of the "Compact"
range.

Unfortunately, when I was there five years ago, a lot of the equipment
associated with the compact range appeared to be in disrepair.

I suspect that you will have a hard time getting testing done here as
security is a big issue. But I could be wrong.

|>
|> My wife will finish her chemotherapy and
|> radiation treatments in March, and since
|> she is quite ill, I cannot foresee my being
|> available until after that time.
|>

|> Allowing say 30 days or so for me to
|> prepare an antenna, I invite you to make
|> the arrangements in Tucson - say April -
|> May, 2005 or so - and I will be more
|> than happy to join you there.
|>
|> Is this agreeable?
|
|No, you'll have to make the arrangements.
|
|Determine the cost of the test. I suggest that we find someone who is
|willing and we both can trust to whom I'll send the money the test will
|cost, as proof of my willingness and ability to pay the test fee if the
|antenna meets the criteria. Let me know when the test is to be done, and
|I'll come down and observe. The person who pays will have the legal
|right to make the results public. I agree in advance to do so if I pay;
|I expect you to do likewise.
|
|Roy Lewallen, W7EL

## 458. For Sale Cushcraft XM240 2 element beam for 40m

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-15 01:19:30 UTC
From: paul.baldock@verizon.net
Message-ID: <CAFbd.1224$l55.146@trnddc09>
Source record: 88447
Cross-posted to: rec.radio.swap,rec.radio.amateur.antenna,rec.radio.amateur.equipment,alt.ham-radio.marketplace

For Sale Cushcraft XM240 2 element beam for 40m

5 years old and in great shape.

$275 (now $700 new from HRO).

Buyer collects from Western Washington State 98270

## 459. Re: Another lie...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-15 01:19:49 UTC
From: k3bu@aol.comNoUsama
Message-ID: <20041014211949.01302.00002253@mb-m04.aol.com>
Source record: 88438

>
>I get feedback from some of my professional customers who have the
>capability to test the antennas they analyze with EZNEC. They report
>very good agreement between analysis and measurement. Of course, most of
>them are real pros in both modeling and measurement. Given the choice of
>believing their results or Ken's and Chuck's, I go for theirs. Even
>though you might not consider those folks to be "experts", I do.
>

Maybe there are cases when things don't play as figured? Maybe would be of interest for software author to find out, and if there is a glichand to find the way to accomodate it? Have you figured out how to model loading coil of particular inductance and physical size to reflect the real current drop across it?
Experts said one time that she's flat.

>But by all means, let's look at the test results -- unless you believe
>that "critical coupling" results in radiation that conventional test
>ranges can't detect but hams can. . .
>
>Roy Lewallen, W7EL
>

Here we go again, W8JI snotty style?
I just mentioned what K7GCO found, in hope that it might shine some light at the subject and arouse some curiosity about disagreement. If it is inconvenient, than I am sorry to butt in here. I have no intentions to get engaged in pissing contest. Right now I am too busy with new ocean front QTH next to 170 acre Rhombic antenna farm, DR1 design and business that brings livelihood. When I get more time, I will get back to work on antennas, setup test range (across salt water bay) and get into paper models vs. real ones.

Peace!

Yuri, K3BU.us

## 460. Re: EH-antenna: sensation or fraude?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-15 01:29:30 UTC
From: fractenna@aol.com
Message-ID: <20041014212930.29586.00002072@mb-m02.aol.com>
Source record: 88424

>Now some may argue against the above but this is how I see patents are dealt
>with at the present time.
>Art

Art,

I spend a non-trivial fraction of any given week on patents. I can't say this
view of yours duplicates my 15 years in the patent(ing) experience.

73,
Chip N1IR

## 461. Re: Another lie...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-15 01:37:50 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10muafgnqg8cj1f@corp.supernews.com>
Source record: 88451

Yuri Blanarovich wrote:
>
> Maybe there are cases when things don't play as figured? Maybe would be of
> interest for software author to find out, and if there is a glichand to find
> the way to accomodate it? Have you figured out how to model loading coil of
> particular inductance and physical size to reflect the real current drop across
> it?
> Experts said one time that she's flat.

EZNEC v. 4.0 has a convenient helix creation feature, which allows the user to quickly make a wire model of an inductor. An inductor modeled in this way will show a current distribution very close to that of a real inductor. There are two cautions, however. One is that EZNEC programs prior to v. 4.0.7 had a bug that would create incorrectly sized wire (when creating a helix or loop) if wire diameter was specified as AWG rather than numerical diameter. So be sure to update your program to the latest version by downloading and installing the latest update from http://eznec.com/ez40updates. (You've said you don't read the manual, so you probably aren't aware of these free updates.) The second caution is that turns should ideally be spaced at least several wire diameters apart. I have, however, seen good results with spacings down to one wire diameter. At that spacing, though, EZNEC will overestimate the Q somewhat (that is, underestimate the loss) because it doesn't account for proximity effect.

> . . .

Roy Lewallen, W7EL

## 462. Re: Another lie...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-15 01:39:31 UTC
From: "aunwin@insightbb.com"
Message-ID: <nTFbd.249694$D%.245079@attbi_s51>
Source record: 88446

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:10mu4pihhv8nb2a@corp.supernews.com...
> Yuri Blanarovich wrote:
> >
> > Ken, K7GCO got bunch of RAIbeams and put them up, wrote glowing review
for 73
> > Mag. He was impressed with the performance and wanted to figure out why
is it
> > so. He very carefully inserted dimensions into EZNEC model and could not
get
> > agreement. He had to go down to 48. 5 MHz in EZNEC to obtain similar
pattern
> > and parameters as real antenna resonant at 51.25 MHz.
> >
> > So, maybe modeling doesn't "see" the dual driven elements and critical
coupling
> > well? It is amusing to see the "experts" defending unmistakability of
software
> > (loading coil case etc.)
>
> I'm sure you're glad, as I am, that Chuck has finally accepted my offer
> and agreed to have a real, professional test done, after something like
> 8 years.

Where is this "acceptance" stated ?

Chuck made a suggestion and then you made
a counter suggestion the last time I read the newsgroup !
I think it is to early for you Roy to be "amused" at the technical ability
of
other hams or experimenters in the hobby. Could you start off being humble
regarding efforts of other amateurs ?
Art

The results of the test should put to rest any speculation
> about this issue. I'm looking forward to the test and seeing the test
> results.
>
> I get feedback from some of my professional customers who have the
> capability to test the antennas they analyze with EZNEC. They report
> very good agreement between analysis and measurement. Of course, most of
> them are real pros in both modeling and measurement. Given the choice of
> believing their results or Ken's and Chuck's, I go for theirs. Even
> though you might not consider those folks to be "experts", I do.
>

> But by all means, let's look at the test results -- unless you believe
> that "critical coupling" results in radiation that conventional test
> ranges can't detect but hams can. . .
>
> Roy Lewallen, W7EL

## 463. I, moparholic@hotmail.com am GAY,GAY,GAY!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-15 02:13:06 UTC
From: moparholic <moparholic@hotmail.com>
Message-ID: <de976095cf4bc183615207a0be757f89@localhost.talkaboutradio.com>
Source record: 88513

That feels better now.

## 464. Re: EH-antenna: sensation or fraude?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-15 02:40:06 UTC
From: "aunwin@insightbb.com"
Message-ID: <aMGbd.183564$wV.114920@attbi_s54>
Source record: 88452

Chip, I have no problem with that, but the PTO has changed in the last few years in how it does things
I read an article a few days ago where companies have gone into their basements to review
old and forgotten patents as litigation between various companies has proved to be a cash cow
for some when reviewing the grammer of patents (claims) and activities of other companies in a grammatical sense.
You should also note that the Justice Department.has added elevated importance( strength) to grammer of claims
in a attempt to curb increasing litigation against the P.T.O..... So things are a changing.
I believe this to be a consequence of the PTO increasing dependence upon the grammer of the claims rather than
the contents as a whole. Remember, lawyers and other reptiles can debate for hours as to what
the definition of "is:":... is, in a grammatical sense. where-as old english law established the original INTENT
as the primary definition .
This difference is why the U,S. has a huge playground for its increasing lawyer population as its politicians
do not seek prior legal aid regarding the blend of ":grammer" and "intent" when making laws. which
the rest of the World does

Art

"Fractenna" <fractenna@aol.com> wrote in message news:20041014212930.29586.00002072@mb-m02.aol.com...
> >Now some may argue against the above but this is how I see patents are dealt
> >with at the present time.
> >Art
>
> Art,
>
> I spend a non-trivial fraction of any given week on patents. I can't say this
> view of yours duplicates my 15 years in the patent(ing) experience.
>
> 73,
> Chip N1IR

## 465. Re: Discone and quadrifilar helix ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-15 03:06:16 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10muflakvck5753@corp.supernews.com>
Source record: 88461

I hadn't realized that when my GPS got me out of a bit of a jam on my most recent backpacking trip, I had Walt to thank (among others of course) -- the GPS receiver uses a quadrifilar helix antenna. Thanks, Walt!

Walt also gets credit for an important role in developing the weather satellites which bring us such benefits as early warning of the hurricanes that recently went through Florida. I hope your house in DeLand came through ok, Walt!

Roy Lewallen, W7EL

Walter Maxwell wrote:

> . . .
> I performed the original research that led to the use of the QFH as the primary
> radiators on all TIROS-N, NOAA polar orbiting satellites. As the lead engineer
> at RCA Astro's antenna laboratory, I measured the radiation patterns and
> terminal impedances on more than 1000 different electrical and mechanical
> configurations of the QFH antenna. Of those many patterns one was chosen for the
> NOAA satellites based on consistant, continous, solid contact with all ground
> stations from the time the spacecraft was 10 degrees above the horizon.
> . . .

## 466. Re: Discone and quadrifilar helix ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-15 03:20:01 UTC
From: Walter Maxwell <w2du@iag.net>
Message-ID: <80gum0hfekeibij12fdobuhnfi2pqrhdsj@4ax.com>
Source record: 88371

Thanks, Roy, for the warm words about my connection with the QFH on the wx spacecraft. My work in that area was a love affair, and I was just lucky to be in the right place at the time the space exploration was just taking off.

I'm also lucky about the hurricane situation in Florida. My only damage was losing one panel of screening around my pool. My son Bill, W2WM, has moved into his new house, also in DeLand where I live, and he had no damage at all there. But his house in W Palm Beach, that he is putting up for sale, suffered extensive damage to the roof, causing leaks. However, FEMA came to his rescue by placing a tarp over the house, covering the entire roof until it can be repaired. I give FEMA a lot of credit for the terrific work they're doing to help the survivors of those terrible storms.

Walt

On Thu, 14 Oct 2004 20:06:16 -0700, Roy Lewallen <w7el@eznec.com> wrote:

>I hadn't realized that when my GPS got me out of a bit of a jam on my
>most recent backpacking trip, I had Walt to thank (among others of
>course) -- the GPS receiver uses a quadrifilar helix antenna. Thanks, Walt!
>
>Walt also gets credit for an important role in developing the weather
>satellites which bring us such benefits as early warning of the
>hurricanes that recently went through Florida. I hope your house in
>DeLand came through ok, Walt!
>
>Roy Lewallen, W7EL
>
>Walter Maxwell wrote:
>
>> . . .
>> I performed the original research that led to the use of the QFH as the primary
>> radiators on all TIROS-N, NOAA polar orbiting satellites. As the lead engineer
>> at RCA Astro's antenna laboratory, I measured the radiation patterns and
>> terminal impedances on more than 1000 different electrical and mechanical
>> configurations of the QFH antenna. Of those many patterns one was chosen for the
>> NOAA satellites based on consistant, continous, solid contact with all ground
>> stations from the time the spacecraft was 10 degrees above the horizon.
>> . . .

## 467. Re: balcony railing mount for DBS dish

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-15 03:37:21 UTC
From: Fat Bastard <a_fat_bastard-NOSPAM-@hotmail.com>
Message-ID: <ckngj901iol@news1.newsguy.com>
Source record: 88468
Cross-posted to: rec.radio.amateur.antenna,rec.video.satellite.dbs,rec.video.satellite.tvro,alt.dss.hack,alt.dbs.echostar.hack

Any contract that has any illegal terms/conditions is NOT legally binding,
just as you noted below. We cannot discriminate against people of color, and
we cannot enter into contract when said contract is illegal in nature. You
cannot enter into contract with MINORS either, for this same reason. It
would be like a drug dealer requiring a contract with his buyer, it just
won't cut the mustard. :)

<kashe@sonic.net> wrote in message
news:6q3um0p4rt57i6g9ib749f4ia3r2o45he7@4ax.com...
> On Wed, 13 Oct 2004 17:07:29 -0400, "superskinnyguy"
> <expressvuclown@gmail.com> wrote:
>
> >
> >"Fat Bastard" <a_fat_bastard-NOSPAM-@hotmail.com> wrote in message
> >news:ckk480075m@news3.newsguy.com...
> >> "Timothy Daniels" <TDaniels@NoSpamDot.com> wrote in message
> >> news:pJudnUX0lqdjbvHcRVn-jg@comcast.com...
> >>
> >>
> >>If you sign a piece of paper when you move saying you'll abide by
> >>regulations of the building as is most often the case, then they aren't
> >>suggestions anymore. It's a legally binding contract.
>
> Some terms of the contract can be invalidated by other laws.
> For instance the CC&Rs in the Wsstlake area of Daly City, CA, which
> stated that an owner could not sell his house to a person of color.
> There is a good chance that FCC rulings supersede most CC&Rs.

## 468. Re: EH-antenna: sensation or fraude?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-15 04:39:43 UTC
From: "aunwin@insightbb.com"
Message-ID: <jwlbd.250235$D%.106937@attbi_s51>
Source record: 88469

"Walter Maxwell" <w2du@iag.net> wrote in message
news:sqbum01a9rr6ejrl9b5ia80c7a130uhfqh@4ax.com...
> Art, you seem to know a lot of what's happening in the US Patent Office.
How do
> you know this? Do you work there? Your 'insider-type' statements seem to
say so.

No I do not work there I am just stating how I see things in Crystal City.
After I retired I did go thru the machinations of patent requests on a
personal basis
where I did everything by myself . This allowed me to discuss things
directly with the PTO
which is something you cannot do if you hire a representitive ( attorney )
or a part of a companyBy doing things this
way you get a keener sense of what is going on and where the difference
between a parallel
circuit and a series circuit can be lost on the examiner. I have also been
invited to PTO seminars
where excuses have been made for irregular procedures because of money grabs
by the government.
I also had a meeting with a military patent attorney where he lamented about
the lessening quality
of examiners that took the easy way out of denying patent requests
presumably because of efficiency drives
and where the military attorney was forced to follow the costly appeal route
with a more than 80% reversal
success rate.
You also now have the U.S. patent office dealing with World Patents so that
even a simple "7" on a drawing
with a slash on it (European style) can throw a patent into a unknown loop
of uncertaincy.
Ofcourse if you are a patent attorney you may well see things differently as
it is your bread and butter
and you recognise hitches ahead of time by knowing the ropes thru experience
plus personal
conversations with the PTO.as to obtaining a patent per present day
aproaches which are very
different from yesteryear..
This is how I personaly view things and it would appear from the media that
many see the Patent Office
as being in a hole from which it cannot extricate itself from given the
present day litigation system.
Mac is a professional in this field and may well provide insights that
totally contradict my perceptions

if he was so inclined.
Art

>
> If what you said is happening there is true there has been a complete turn
> around in policy since I was knowledgeable in that area. You've described
what
> seems to me to be fraudulent activity in the issuance of patents that have
no
> value, and to use them in a court of law in an attempt for the patentee
to
> obtain money is a mockery of the Patent System.
>
> I know there is nothing I can do about the situation, but I'm shocked to
learn
> about it. Apparently this is what Roy was talking about in his previous
post
> that answered mine.
>
> Walt, W2DU
>
> On Fri, 15 Oct 2004 01:21:53 GMT, "aunwin@insightbb.com"
> <aunwin@insightbb.com@insightbb.com> wrote:
>
> >Examiners get a salary of $43,000 PER YEAR which is not much in Maryland.
> >The majority of examiners have English as a second language and most have
> >Asian or
> >Vietnamese heritage. ( A look at the telephone directory of the
department
> >is quite an eye opener).
> >They are also on a time schedule on how many patents that they must move
> >along
> >per hour. Since the Patent Office is a "cash cow" patents or "'prior art"
> >have been put on computor record
> >so that examiners can feed in a few salient words from the application
and
> >then forward
> >the resulting computor patent matches to the new applicant so that he can
> >defend against the
> > grammar of"prior art"
> >.This now means that the new applicant cannot "plagerise" a pre awarded
> >patent grammatically.
> >Since the patent office does not spend time researching physics or
reviewing
> >workability it does
> >not matter if the patent works or not.
> >Since the Government TAKES cash from the patent office where normally it
> >gives money to various
> > government offices it is encumbent on the patent office to move along
> >patent requests as fast as possible

> >and with as little work as possible to maintain the establishment and
senior
> >examiners salaries,
> >of the latter there is very few., so that the department stays in
business
> >So to sum up, the patent office now review patent requests for
grammatical
> >duplication of "prior art"
> >plus ensuring that the format of any new application meets regulations
and
> >to ensure that said application
> >is placed in the correct pre-assigned grouping depending on its physics
or
> >intended use.
> >Now some may argue against the above but this is how I see patents are
dealt
> >with at the present time.
> >Art
> >
> >
> >
> >"Walter Maxwell" <w2du@iag.net> wrote in message
> >news:i7jtm0hgn55hc3ot4l1emvjh2s2mqne9fp@4ax.com...
> >> Sorry to hear that, Roy. I was very much involved with the RCA Patent
> >Dept in
> >> my early years with RCA, 1949 to 1957. During that time the US Patent
> >Office
> >> examiners were smart and tough. A patent used to be worth something.
> >>
> >> Walt
> >>
> >> On Thu, 14 Oct 2004 10:54:49 -0700, Roy Lewallen <w7el@eznec.com>
wrote:
> >>
> >> >Hate to break the news, Walt, but it happens very, very often. Even
> >> >years ago, when I was doing some consulting work on a patent case and
> >> >read a couple of hundred antenna patents, there was a great deal of
> >> >pseudo- and voodoo-science in issued patents. These days, it's
rampant.
> >> >
> >> >My favorite example is US patent #6,025,810, "Hyper-Light-Speed
> >> >Antenna", but I'm sure even this is far from the most egregious.
> >> >
> >> >Roy Lewallen, W7EL
> >> >
> >> >Walter Maxwell wrote:
> >> >>
> >> >> I f there really is an issued patent on the EH antenna, the
paragraph
> >above is

> >> >> proof that the Patent Office examiner who approved the patent
> >application for
> >> >> issuance was completely snowed by the applicant's patent attorney
who
> >wrote the
> >> >> application.
> >> >>
> >> >> This doesn't happen too often, but it does happen. Unless the patent
> >examiner is
> >> >> extremely well versed in electromagnetic theory he could easily be
> >persuaded
> >> >> that the EH principle is valid, while it is not.
> >> >>
> >> >> Walt Maxwell, W2DU
> >> >>
> >>
> > >
>

## 469. Re: Printing wire list from EZNEC?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-15 04:55:08 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <3f1sm0do9u5p6psticvtld2mf6dmennbnt@4ax.com>
Source record: 88470

On Thu, 14 Oct 2004 14:56:15 -0700, "Chuck" <wa7rai@raibeam.com>
wrote:

> the onus is on you
>to provide something

Hi Chuck,

Like I said, this has been a hoot.

73's
Richard Clark, KB7QHC

## 470. Re: Patents

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-15 04:55:28 UTC
From: Andrey <a8421@intergate.bc.ca>
Message-ID: <10mulnpi1478484@corp.supernews.com>
Source record: 88464

I have several patents issued to my name with US PTO. For Antennas. They are not mine, technically. I made the innovations being a consultant to the company, the company decided to patent it. My name is there but the patents are theirs.

One patent is total nonsense. The design was original and practical, the result went into production. Then I wrote a description, drew a diagram. I discussed it with examiner who came over for that very purpose. The examiner was an American, his English better then mine. I did not do the follow up - left the company by that time. The resulting text has very little resemblance to what I tried to say. It is clearly not what I made. It does not make any sense to me. Moreover, I am not sure the described 'device' is possible at all.

It was patented all right - anyone can see it on the Web now.

I show it to my friends sometimes, as object of curiosity.

Andrey

"Walter Maxwell" <w2du@iag.net> wrote in message
news:sqbum01a9rr6ejrl9b5ia80c7a130uhfqh@4ax.com...
> Art, you seem to know a lot of what's happening in the US Patent Office.
How do
> you know this? Do you work there? Your 'insider-type' statements seem to
say so.
>
> If what you said is happening there is true there has been a complete turn
> around in policy since I was knowledgeable in that area. You've described
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to
> obtain money is a mockery of the Patent System.
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> I know there is nothing I can do about the situation, but I'm shocked to
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> >per hour. Since the Patent Office is a "cash cow" patents or "'prior art"
> >have been put on computor record
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and
> >then forward
> >the resulting computor patent matches to the new applicant so that he can
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> > grammar of"prior art"
> >.This now means that the new applicant cannot "plagerise" a pre awarded
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> >patent requests as fast as possible
> >and with as little work as possible to maintain the establishment and
senior
> >examiners salaries,
> >of the latter there is very few., so that the department stays in
business
> >So to sum up, the patent office now review patent requests for
grammatical
> >duplication of "prior art"
> >plus ensuring that the format of any new application meets regulations
and
> >to ensure that said application
> >is placed in the correct pre-assigned grouping depending on its physics
or
> >intended use.
> >Now some may argue against the above but this is how I see patents are
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> >
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> >news:i7jtm0hgn55hc3ot4l1emvjh2s2mqne9fp@4ax.com...

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> >> examiners were smart and tough. A patent used to be worth something.
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> >> On Thu, 14 Oct 2004 10:54:49 -0700, Roy Lewallen <w7el@eznec.com>
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> >> >Hate to break the news, Walt, but it happens very, very often. Even
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> >> >read a couple of hundred antenna patents, there was a great deal of
> >> >pseudo- and voodoo-science in issued patents. These days, it's
rampant.
> >> >
> >> >My favorite example is US patent #6,025,810, "Hyper-Light-Speed
> >> >Antenna", but I'm sure even this is far from the most egregious.
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> >> >Roy Lewallen, W7EL
> >> >
> >> >Walter Maxwell wrote:
> >> >>
> >> >> I f there really is an issued patent on the EH antenna, the
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who
> >wrote the
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> >examiner is
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> >persuaded
> >> >> that the EH principle is valid, while it is not.
> >> >>
> >> >> Walt Maxwell, W2DU
> >> >>
> >> >
> >
>

## 471. Re: Another lie...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-15 05:06:33 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <932sm0tgn1k8p24mmkmr5lt5d23s2qg0oo@4ax.com>
Source record: 88462

On 15 Oct 2004 01:19:49 GMT, k3bu@aol.comNoUsama (Yuri Blanarovich)
wrote:

>Have you figured out how to model loading coil of
>particular inductance and physical size to reflect the real current drop across
>it?

Hi Yuri,

From Roy's description, you published at your web site how to do this
nearly a year ago. Have you lost that page?

73's
Richard Clark, KB7QHC

## 472. Re: physical/intuitive understanding of RL/RC time constants?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-15 05:33:03 UTC
From: john jardine <john@jjdesigns.fsnet.co.uk>
Message-ID: <ckmq9v$m4i$1@newsg2.svr.pol.co.uk>
Source record: 88457
Cross-posted to: sci.electronics.basics,sci.physics,rec.radio.amateur.antenna

"John Larkin" <jjlarkin@highlandSNIPtechTHISnologyPLEASE.com> wrote in
message news:6anrm0h3etrm722a523g21hlvlfgjffu8l@4ax.com...
> On 11 Oct 2004 16:11:16 -0700, alanh_27@yahoo.com (Alan Horowitz)
> wrote:
>
> >when a current just starts flowing into a RL or RC circuit, how does
> >the voltage "know" that it should be increasing exactly 63% during
> >each time-constant period?
> >
> >And whence the number 63%?
>
>
> How about this:
>
> Charge a 1 farad capacitor to 1 volt and slap a 1 ohm resistor across
> it. The resistor current is 1 amp, so the cap discharges, and the
> voltage is at first declining at a rate of 1 volt per second. But
> 1/100 of a second later, the voltage is 0.99 volts, so the current is
> only 0.99 amps, so the rate of discharge is only 0.99 volts per
> second.
>
> So we write a Basic program:
>
> v = 1 ' charge the cap
>
> for t = 1 to 100 ' then, for 1 second at 0.01 sec steps,
>
> v = v - 0.01 * v ' discharge the cap by 1%
>
> next
>
> print v ' voltage is this, 1 second later
>
>
> which simulates what I was doing above, but for a full second. The
> value of v at the end is 0.36603 volts. That's close to 1/e, not exact
> because I took 100 discrete steps, as an approximation to
> continuous-time math. With 1000 steps, simulating 1 second of
> discharge in 1 millisecond steps, you get 0.367700, even closer.
>
> 'e' is just nature's answer to a natural discharge curve.
>
> John

>
>
Egads!. You've just given away the secret of Spice Transient Analysis. The
programmers will be calling for you with torches ablaze.
Why is it that if anyone wants to *clearly* explain an algorithm or
sequential idea, they'll use "Basic" or a very Basic looking 'Pseudo-code',
yet most programmes seem written in "C".
It just isn't logical.
regards
john

## 473. Re: balcony railing mount for DBS dish

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-15 08:56:58 UTC
From: kashe@sonic.net
Message-ID: <fs3vm0p69ij18vta3f4hq7mc0hge0aee2f@4ax.com>
Source record: 88465
Cross-posted to: rec.radio.amateur.antenna,rec.video.satellite.dbs,rec.video.satellite.tvro,alt.dss.hack,alt.dbs.echostar.hack

On Thu, 14 Oct 2004 14:42:28 -0700, "Fat Bastard"
<a_fat_bastard-NOSPAM-@hotmail.com> wrote:

>
>"Timothy Daniels" <TDaniels@NoSpamDot.com> wrote in message
>news:9padnYLFiaH01PPcRVn->
>>
>> Yes, they are not law. But the CC&Rs are legal contracts
>> between the owners and the Home Owners Association,
>> and they are legally binding for those parties. Unless the
>> CC&Rs conflict with state or federal law, they prevail. In the
>> absence of federal law or ruling stating that railings are part
>> of the Exclusive Use area, one has only the CC&Rs for a
>> definition of what is "balcony".
>
>Technically, yes, but you are probably also aware that any contract that
>isn't a LEGAL action is NOT lawful, or binding. You can't enforce a contract
>that is not legal to begin with.

As when using in terrorem clauses, designed to frighten
someone from taking legal action to recover loss. The classic example
is the signs some cleaners post saying that clothes left over X days
can be sold for charges and need not be sold for actual cash value.
The signs normally specify X days as far shorter than that specified
by law. If the cleaner actually sells the clothes before the legally
required time, he is liable for damages for the entire market value of
the clothes less the agreed-upon cleaning charge.

> Now, I'm not saying that a contract of this
>nature is or isn't legal, but it is questionable in my opinion, and I'm sure
>in many lawyers opinions as well (the opposite is certainly true as well
>though). I personally think that doors and windows to your privately owned
>"unit" are YOURS, they do NOT belong to the association.
>
>>
>> Nonsense. By that logic there can't exist a walkway
>> without a railing, or a patio without a fence.
>
>Walkways have never needed a railing, unless they are above ground level
>(2nd through xxx stories high) and are required for "safety" to prevent
>someone from falling.

Or to prevent people from falling into something like a pond
traversed by the walkway.

> A walkway is simply a passage for walking.
>
>Main Entry: walkï¿½way
>Pronunciation: 'wok-"wA
>Function: noun
>: a passage for walking : WALK
>
>Note, there is NO REFERENCE to a railing. I've never known of a walkway to
>include a railing as part of the definition. Nor have I known the definition
>of Patio to have a fence.
>
>Main Entry: paï¿½tio
>Pronunciation: 'pa-tE-"O also 'pï¿½-
>Function: noun
>Inflected Form(s): plural paï¿½tiï¿½os
>Etymology: Spanish
>1 : COURTYARD; especially : an inner court open to the sky
>2 : a recreation area that adjoins a dwelling, is often paved, and is
>adapted especially to outdoor dining
>
>no reference to a fence here either. (courtyard however does reference being
>an "enclosure")
>
>My patio has never had a fence around it, and I don't know anyone else with
>a fence around their patio (unless their patio borders a pool, and they were
>required by law to have a separate fence around it). Most PATIO's are open
>areas, possible COVERED, but not "fenced". My patio is OPEN (not covered
>yet), so i can walk out into the yard anytime I want. My YARD is bordered by
>a wall though.
>
>Now, note the definition of BALCONY:
>
>
> Main Entry: balï¿½coï¿½ny
> Pronunciation: 'bal-k&-nE
> Function: noun
> Inflected Form(s): plural -nies
> Etymology: Italian balcone, from Old Italian, large window, of
>Germanic origin; akin to Old High German balko beam -- more at BALK
> 1 : a platform that projects from the wall of a building and is
>enclosed by a parapet or railing
> 2 : an interior projecting gallery in a public building (as a theater)
> - balï¿½coï¿½nied /-nEd/ adjective
>
> See how it specifically states "and is enclosed by a parapet or
>RAILING". So, without a railing, it is not really a "balcony", but rather a
>"patio". :)
>
>
>> > The railing is part of the balcony (a protective barrier
>> > to keep you from falling off said balcony),

>>
>>
>> If your reiterative definition were right, "said balcony"
>> would already have a railing - by your definition of
>> "balcony" - and it wouldn't need another railing.
>
>I said a balcony already INCLUDES a railing.
>
>>
>> By your reasoning, doors aren't structural, either.
>> But doors ARE part of the common area - owned
>> and maintained by the HOA - and they are certainly
>> NOT part of the Unit. Similarly, balcony railings
>> are part of the structure - like walls - and not part
>> of the Unit.
>
>Doors aren't structural, and I personally would argue whether my DOOR to MY
>PROPERTY belongs to anyone other than myself. I have exclusive use of my
>door (if you come and remove my door, or you enter my door without
>permission, you are TRESPASSING on private property, and are subject to
>arrest). In your CC&R's you may have a rule that states the door is part of
>the HOA, and not owned by the property owner, but it would be WRONG, and I
>would challenge it in court any day of the week. Now, it would be
>understandable if the door is covered under the HOA agreement as far as
>PAINT, or DESIGN goes, but i personally think it's BULLSHIT to dictate what
>people can do with what belongs to them, and I'd challenge it if i felt the
>need (if I painted my door and someone complained, I'd tell them to bugger
>off, and sue me if they feel they have a case). I personally wouldn't go
>against a particular communities rules on paint colors, or at least not get
>approval for any color not already on the building, because it's not nice to
>put some awful color on the building that is shared with others, but on the
>other hand it's really none of their business, and they don't have to look
>at it if they don't like it. I'm sick of all these HOA's dictating what
>people can and can't do, just because a couple of schmucks don't like
>something.
>
>> > Our CC&R's specifically state that the balcony is
>> > EXCLUSIVE USE area. It described COMMON areas
>> > as those that can be used by ANYONE, not just the
>> > OWNER of the unit. The balcony is PRIVATE PROPERTY,
>> > and cannot be regulated by the "public" (commoners). lol
>>
>>
>> Yes, yes. But do your CC&Rs include the railing
>> in its definition of "balcony"?
>
>By definition of Balcony, YES. A balcony INCLUDES the rail, by every known
>definition. it's not a balcony without the rail. It's a porch/patio without
>the rail. A dangerous one at that, if it's several floors up. :)
>

>
>> "Structural" does not mean "supportive of the building".
>> A railing is as structural as a door or a fence or a window.
>> It is part of the physical building that defines the airspaces
>> which are units within a condo building. If your house
>> (which you said you live in) is part of a community having
>> commonly-owned property, the definition of "Unit" may
>> be different, but for a condo building containing multiple
>> units, the "Units" are airspaces (plus, perhaps, some
>> interior walls), but NOT the exterior doors, NOT the windows,
>> NOT the patio fences, and NOT the balcony railings.
>
>WRONG. Structural clearly defines "Structure", as in structural stability.
>See below.
>
>Main Entry: strucï¿½turï¿½al
>Pronunciation: 'str&k-ch&-r&l, 'str&k-shr&l
>Function: adjective
>1 : of or relating to the physical makeup of a plant or animal body
>2 a : of, relating to, or affecting structure <structural stability> b :
>used in building structures <structural clay> c : involved in or caused by
>structure especially of the economy <structural unemployment>
>3 : of, relating to, or resulting from the effects of folding or faulting of
>the earth's crust : TECTONIC
>4 : concerned with or relating to structure rather than history or
>comparison <structural linguistics>
>- strucï¿½turï¿½alï¿½ly adverb
>
>A railing is not "structural" in most cases. It is decorative, and
>protective.
>
> Main Entry: 2rail
> Function: transitive verb
> : to provide with a railing : FENCE
>
>
> Main Entry: 1fence
> Pronunciation: 'fen(t)s
> Function: noun
> Usage: often attributive
> Etymology: Middle English fens, short for defens defense
> 1 archaic : a means of protection : DEFENSE
> 2 : a barrier intended to prevent escape or intrusion or to mark a
>boundary; especially : such a barrier made of posts and wire or boards
> 3 : FENCING 1
> 4 a : a receiver of stolen goods b : a place where stolen goods are
>bought
> - fenceï¿½less /-l&s/ adjective
> - fenceï¿½lessï¿½ness noun
> - on the fence : in a position of neutrality or indecision

>
>
>Hmm, english definitions of everything seem to support my argument so far.
>As I said, I would challenge any HOA's on these any day of the week.
>
>>
>> CC&Rs are legal and binding contracts - like any other
>> civil contracts - and they are legally enforceable unless
>> they contradict state or federal laws - like any other
>> civil contracts. They are NOT merely "suggestions".
>
>To me, they are merely suggestions. Unless SPECIFIC (if your CC&R
>specifically states not allowing the use of the railing to mount anything
>to, then it's BS, and you cannot restrict it. If your CC&R states nothing
>can be bolted to the STRUCTURE or outside walls, then that is the WALLS or
>STRUCTURE of the building, NOT the railing of my personal balcony), it isn't
>covered, nor is it "legally binding". To be legally binding, it must be
>legally based, but you cannot impose your "LAW" on someone elses private
>property.
>
>>
>> And we are discussing "outer", as in outer surface
>> of a balcony railing. The inside of a railing is like
>> the inside of a door - it's common area, but it's
>> Exclusive Use common area. But the *outside* is
>> like the outside of a door - it's just simply
>> Common Area without exclusivity. And like a door,
>> you can't attach things to the outside surface of a
>> balcony railing
>
>Balcony is owned by me, it's mine, i'll attach to the railing (part of the
>balcony) if i want to, inside or out. That's my opinion, and the definition
>of balcony supports my opinion. The outside of the railing is not common
>area, because nobody else has access to it (it's hanging out in the air, 20
>or more feet above the ground, and is my private, exclusive area, that you
>cannot enter, or interfere with, without proper authority from me). Again,
>my opinion, and supported by definition. Some judges may agree, some may
>not, but I certainly would be willing to challenge it if it came to that.
>
>>
>> Our CC&Rs are quite similar to those of others
>> in the area which I've seen when it comes to
>> defining what is "Unit" and what is "Common Area".
>> Your CC&Rs are probably different due to your
>> property being a detached house on land that
>> solely belongs to you.
>
>I personally don't have ANY CC&R's here. the property I'm on right now is
>MINE, exclusively, and has no HOA governing it. Some idiots tried to start
>one up, but nobody would around here would agree to it, so it seems to have

>drifted away like so many other stupid things people try to do just to force
>their own beliefs or opinions on others. I was speaking of the rules and
>regs of the properties we've managed, or worked for, NOT for my own personal
>and private property that I am located on right now.
>
>>
>> Most of the resistance that most building owners
>> and HOAs have to DBS dishes is due to the
>> precedent that they set regarding attachment of
>> objects - any kind of objects - to the exterior of the
>> building without regard to sightliness or safety or
>> susceptibility to water damage from holes being
>> drilled. Once an Association allows something
>> that it isn't forced to allow by law, it can be used
>> as a precedent for attaching all kinds of other
>> crap that most people may find offensive or which
>> may cause eventual (or even immediate) damage
>> to the building. By painful experience, HOAs have
>> found that the way to keep the peace is to leave
>> the buildings the way they were built - unfestooned.
>> Once attachments are allowed, the genie is out
>> of the bottle, and decades of bickering ensue.
>
>I agree with you there, entirely. It does open decades of bickering. Just
>look at us here. LOL
>
>> In our HOA's case, we kept everyone happy by
>> providing a community dish that anyone can
>> use by just shifting their coaxial cable to feed off
>> its amplifier (and stacker and splitter tree). So
>> far, everyone is satisfied with DirecTV without
>> HD. The 2 residents who need DishNet's foreign
>> language programming fortunately have a view of
>> Dish's satellites from their patios and they've
>> attached their dishes to the inside of their patio
>> fences. We put the community dish in because
>> a very good case was made that the cost of the
>> system was less than the improvement in our
>> property values by its addition, and it keeps the
>> peace. I strongly suggest that such cases be
>> presented to the governing boards of HOAs that
>> have been resistant to dishes rather than try to
>> fight them or just bitch and moan about how
>> assinine they are.
>
>That's great that you put in a community dish, especially if it's provided
>FREE OF CHARGE, but not all buildings offer that, nor do they all have plans
>to. Also, by only allowing your own dish/provider you are creating a
>monopoly, and are infringing on others rights. It is not legal to force
>anyone to utilize your system if they prefer another. I certainly don't want

>DTV, so I'd want to install my own dish, provided I have an area where I can
>do so, which faces the right direction. Now, if you offer every system,
>cable, dtv, dish, etc., then that would cover all bases. I know that there
>have been cases where the apt/condo/etc. has tried to force the people to
>use their provided cable access, and they were challenged, and the owners
>were allowed to put up dishes. It's not right to limit someone to YOUR
>preference of providers.
>

## 474. Re: balcony railing mount for DBS dish

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-15 09:21:39 UTC
From: Timothy Daniels <TDaniels@NoSpamDot.com>
Message-ID: <ft2dnav-EPU_C_LcRVn-qA@comcast.com>
Source record: 88467
Cross-posted to: rec.radio.amateur.antenna,rec.video.satellite.dbs,rec.video.satellite.tvro,alt.dss.hack,alt.dbs.echostar.hack

"Gary" wrote:
> Can you drill for a door eye viewer or mount a knocker
> or even a hook for a Christmas decoration on the outside
> of your door?

"Can" and "permitted" are two different things.
A strict interpretation of the CC&Rs permit neither,
but the addition of knobs are overlooked as the doors
originally had only pull handles, and many owners
have installed knobs that match the pull handle.
Likewise, the type of lock is overlooked as the
original lock is no longer made and newer locks
are more secure. No owner is permitted or allowed
to remove the large custom pull handle as that would
cause a major change in architectural appearance
and a loss of uniformity. Christmas decorations,
Thanks Giving decorations, Halloween decorations,
etc, are classed as "temporary decorations of a
seasonal nature", and they are allowed to remain for
a maximum of 45 days - long enough to encompass
all religious and seasonal needs. The goal has been
to avoid permanent changes which some owners could
bitch about but yet to allow individual expressions of festivity
and/or religious observance. So far, things have worked
out well. As with all rules governing a democratic organization,
there needs to be both wiggle room and restraint, and
balancing the two is the mark of a good governing body.

One of the major difficulties with HOAs is that most
condo owners are previous apartment renters, and they
don't know the problems of maintaining real property and
the politics of common ownership. All they know is that
they pay dues, and they assume that is like paying rent -
someone *owes* them management services in return,
and since they are now "owners", they should be allowed
to do whatever they please with everything in sight.
Never does it occur to them that *they* are responsible
for the upkeep of the property, and *they* are responsible
for behaving in a manner that doesn't offend other owners.
And in the governing board, all they see is a bunch of peers
acting like self-important ass holes rather than volunteers
who are burdened with the job of maintaining the property
and the living conditions for thankless people while keeping
everyone off each others' backs. As with parents, you don't

appreciate what members of governing boards have done
for you until you become one yourself.

*TimDaniels*

## 475. Re: balcony railing mount for DBS dish

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-15 10:03:37 UTC
From: Timothy Daniels <TDaniels@NoSpamDot.com>
Message-ID: <3-udnRuwoIvlPfLcRVn-pA@comcast.com>
Source record: 88466
Cross-posted to: rec.radio.amateur.antenna,rec.video.satellite.dbs,rec.video.satellite.tvro,alt.dss.hack,alt.dbs.echostar.hack

"Fat Bastard" repeats endlessly:
>
> "Timothy Daniels" wrote:
>>
>> Yes, they are not law. But the CC&Rs are legal contracts
>> between the owners and the Home Owners Association,
>> and they are legally binding for those parties. Unless the
>> CC&Rs conflict with state or federal law, they prevail. In the
>> absence of federal law or ruling stating that railings are part
>> of the Exclusive Use area, one has only the CC&Rs for a
>> definition of what is "balcony".
>
> Technically, yes, but you are probably also aware that any
> contract that isn't a LEGAL action is NOT lawful, or binding.
> You can't enforce a contract that is not legal to begin with.

Read more slowly, and you may see what I have been
writing repeatedly (there is an example above) - that
UNLESS the CC&Rs contradict STATE or FEDERAL
laws, they prevail. That means CC&Rs are invalid if
they contradict those laws, such as prohibitions against
children. When our CC&Rs were written, they could
and did prohibit children residing for more than 30
days. Now such prohibitions are illegal due to a state
Supreme Court decision, and those sections of our
CC&Rs prohibiting children are no longer enforceable.

> [.......] I personally think that doors and windows to your
> privately owned "unit" are YOURS, they do NOT belong
> to the association.

By buying a unit in our Association, one commits
oneself to abide by the CC&Rs, and the description
of each "Unit" is clearly delineated in detail in a
condominium plan. It does not include anything
outside the inner surface of the walls or anything
outside the extension into the patio, by a specified
distance, imaginary planes formed by the walls
and ceiling of the adjacent living rooms. Everything
else is Common Area. And that is standard for
most CC&Rs, the major difference being whether
the patio is Common Area or part of the Unit.
Thus, when doors need patching or painting or
replacing, the Association does it because the

Association owns it - not the owner of the adjacent
Unit. Similarly for exterior window hardware.
That is how the Association maintains control over
the uniformity of appearance and how it avoids
having crazy owners painting or carving crazy
designs on their doors and windows that offend
the other owners and which eventually lead to
wars of festooning exterior surfaces that eventually
lead to destruction of each others' property. The
motto is this: "If you liked enough to buy it like it was,
you must like it enough to keep it that way." And
that's the only way to keep the peace.

> Walkways have never needed a railing, unless they are
> above ground level (2nd through xxx stories high) and
> are required for "safety" to prevent someone from falling.
> A walkway is simply a passage for walking.

Nonsense. Have you ever seen walkways at a
condo complex for the elderly? Ground level
walkways frequently have railings because of need.

> Main Entry: walkï¿½way
> Pronunciation: 'wok-"wA
> Function: noun
> : a passage for walking : WALK
>
> Note, there is NO REFERENCE to a railing.
> I've never known of a walkway to include a
> railing as part of the definition.

If you are arguing that a walkway needn't have a railing
to be defined as a walkway, OK, but neither I nor
anyone else claimed that a railing was a defining part
of a "walkway".

> Nor have I known the definition of Patio to have a fence.
>
> Main Entry: paï¿½tio
> Pronunciation: 'pa-tE-"O also 'pï¿½-
> Function: noun
> Inflected Form(s): plural paï¿½tiï¿½os
> Etymology: Spanish
> 1 : COURTYARD; especially : an inner court open to the sky
> 2 : a recreation area that adjoins a dwelling, is often paved, and is
> adapted especially to outdoor dining
>
> no reference to a fence here either. (courtyard however does
> reference being an "enclosure")

Right. The fence around a patio is part of the Common Area,
not part of the Unit or a part of the patio.

> My patio has never had a fence around it, and I don't know
> anyone else with a fence around their patio (unless their
> patio borders a pool, and they were required by law to have
> a separate fence around it). Most PATIO's are open areas,
> possible COVERED, but not "fenced". My patio is OPEN
> (not covered yet), so i can walk out into the yard anytime I
> want. My YARD is bordered by a wall though.

So what? Our patios are all fenced. The fence is 8 feet
high and built of tongue 'n groove boards so that no one
can see in. People like the privacy.

> Now, note the definition of BALCONY:
>
>
> Main Entry: bali¿½coï¿½ny
> Pronunciation: 'bal-k&-nE
> Function: noun
> Inflected Form(s): plural -nies
> Etymology: Italian balcone, from Old Italian, large window, of
> Germanic origin; akin to Old High German balko beam -- more at BALK
> 1 : a platform that projects from the wall of a building and is
> enclosed by a parapet or railing
> 2 : an interior projecting gallery in a public building (as a theater)
> - bali¿½coï¿½nied /-nEd/ adjective
>
> See how it specifically states "and is enclosed by a parapet or
> RAILING". So, without a railing, it is not really a "balcony", but rather a
> "patio". :)

Fat Bastard, you've become tedious.

*TimDaniels*

## 476. Re: EH-antenna: sensation or fraude?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-15 11:13:58 UTC
From: fractenna@aol.com
Message-ID: <20041015071358.03847.00001970@mb-m10.aol.com>
Source record: 88463

>. So
>things are a changing.

Nope.

Go look up the case involving Armstrong and DeForest.

73,
Chip N1IR

## 477. Re: EH-antenna: sensation or fraude?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-15 13:50:09 UTC
From: Walter Maxwell <w2du@iag.net>
Message-ID: <d9lvm05n7ndlst8lsdd0pkgjud17h3be4i@4ax.com>
Source record: 88411

Thanks, Art, for the sad commentary.

Walt

On Fri, 15 Oct 2004 04:39:43 GMT, "aunwin@insightbb.com"
<aunwin@insightbb.com@insightbb.com> wrote:

>
>"Walter Maxwell" <w2du@iag.net> wrote in message
>news:sqbum01a9rr6ejrl9b5ia80c7a130uhfqh@4ax.com...
>> Art, you seem to know a lot of what's happening in the US Patent Office.
>How do
>> you know this? Do you work there? Your 'insider-type' statements seem to
>say so.
>
>No I do not work there I am just stating how I see things in Crystal City.
>After I retired I did go thru the machinations of patent requests on a
>personal basis
>where I did everything by myself . This allowed me to discuss things
>directly with the PTO
>which is something you cannot do if you hire a representitive ( attorney )
>or a part of a companyBy doing things this
> way you get a keener sense of what is going on and where the difference
>between a parallel
>circuit and a series circuit can be lost on the examiner. I have also been
>invited to PTO seminars
>where excuses have been made for irregular procedures because of money grabs
>by the government.
>I also had a meeting with a military patent attorney where he lamented about
>the lessening quality
>of examiners that took the easy way out of denying patent requests
>presumably because of efficiency drives
>and where the military attorney was forced to follow the costly appeal route
>with a more than 80% reversal
>success rate.
>You also now have the U.S. patent office dealing with World Patents so that
>even a simple "7" on a drawing
>with a slash on it (European style) can throw a patent into a unknown loop
>of uncertaincy.
>Ofcourse if you are a patent attorney you may well see things differently as
>it is your bread and butter
>and you recognise hitches ahead of time by knowing the ropes thru experience
>plus personal
>conversations with the PTO.as to obtaining a patent per present day
>aproaches which are very

>different from yesteryear..
>This is how I personaly view things and it would appear from the media that
>many see the Patent Office
>as being in a hole from which it cannot extricate itself from given the
>present day litigation system.
>Mac is a professional in this field and may well provide insights that
>totally contradict my perceptions
>if he was so inclined.
>Art
>
>
>
>
>>
>> If what you said is happening there is true there has been a complete turn
>> around in policy since I was knowledgeable in that area. You've described
>what
>> seems to me to be fraudulent activity in the issuance of patents that have
>no
>> value, and to use them in a court of law in an attempt for the patentee
>to
>> obtain money is a mockery of the Patent System.
>>
>> I know there is nothing I can do about the situation, but I'm shocked to
>learn
>> about it. Apparently this is what Roy was talking about in his previous
>post
>> that answered mine.
>>
>> Walt, W2DU
>>
>> On Fri, 15 Oct 2004 01:21:53 GMT, "aunwin@insightbb.com"
>> <aunwin@insightbb.com@insightbb.com> wrote:
>>
>> >Examiners get a salary of $43,000 PER YEAR which is not much in Maryland.
>> >The majority of examiners have English as a second language and most have
>> >Asian or
>> >Vietnamese heritage. ( A look at the telephone directory of the
>department
>> >is quite an eye opener).
>> >They are also on a time schedule on how many patents that they must move
>> >along
>> >per hour. Since the Patent Office is a "cash cow" patents or "'prior art"
>> >have been put on computor record
>> >so that examiners can feed in a few salient words from the application
>and
>> >then forward
>> >the resulting computor patent matches to the new applicant so that he can
>> >defend against the
>> > grammar of"prior art"

>> >.This now means that the new applicant cannot "plagerise" a pre awarded
>> >patent grammatically.
>> >Since the patent office does not spend time researching physics or
>reviewing
>> >workability it does
>> >not matter if the patent works or not.
>> >Since the Government TAKES cash from the patent office where normally it
>> >gives money to various
>> > government offices it is encumbent on the patent office to move along
>> >patent requests as fast as possible
>> >and with as little work as possible to maintain the establishment and
>senior
>> >examiners salaries,
>> >of the latter there is very few., so that the department stays in
>business
>> >So to sum up, the patent office now review patent requests for
>grammatical
>> >duplication of "prior art"
>> >plus ensuring that the format of any new application meets regulations
>and
>> >to ensure that said application
>> >is placed in the correct pre-assigned grouping depending on its physics
>or
>> >intended use.
>> >Now some may argue against the above but this is how I see patents are
>dealt
>> >with at the present time.
>> >Art
>> >
>> >
>> >
>> >"Walter Maxwell" <w2du@iag.net> wrote in message
>> >news:i7jtm0hgn55hc3ot4l1emvjh2s2mqne9fp@4ax.com...
>> >> Sorry to hear that, Roy. I was very much involved with the RCA Patent
>> >Dept in
>> >> my early years with RCA, 1949 to 1957. During that time the US Patent
>> >Office
>> >> examiners were smart and tough. A patent used to be worth something.
>> >>
>> >> Walt
>> >>
>> >> On Thu, 14 Oct 2004 10:54:49 -0700, Roy Lewallen <w7el@eznec.com>
>wrote:
>> >>
>> >> >Hate to break the news, Walt, but it happens very, very often. Even
>> >> >years ago, when I was doing some consulting work on a patent case and
>> >> >read a couple of hundred antenna patents, there was a great deal of
>> >> >pseudo- and voodoo-science in issued patents. These days, it's
>rampant.
>> >> >

>> >> >My favorite example is US patent #6,025,810, "Hyper-Light-Speed
>> >> >Antenna", but I'm sure even this is far from the most egregious.
>> >> >
>> >> >Roy Lewallen, W7EL
>> >> >
>> >> >Walter Maxwell wrote:
>> >> >>
>> >> >> I f there really is an issued patent on the EH antenna, the
>paragraph
>> >above is
>> >> >> proof that the Patent Office examiner who approved the patent
>> >application for
>> >> >> issuance was completely snowed by the applicant's patent attorney
>who
>> >wrote the
>> >> >> application.
>> >> >>
>> >> >> This doesn't happen too often, but it does happen. Unless the patent
>> >examiner is
>> >> >> extremely well versed in electromagnetic theory he could easily be
>> >persuaded
>> >> >> that the EH principle is valid, while it is not.
>> >> >>
>> >> >> Walt Maxwell, W2DU
>> >> >>
>> >>
>> >
>>
>

## 478. Re: Another lie...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-15 15:36:42 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <e8Sbd.5957$6q2.1106@newssvr14.news.prodigy.com>
Source record: 88400

Richard Clark wrote:
> On 15 Oct 2004 01:19:49 GMT, k3bu@aol.comNoUsama (Yuri Blanarovich)
> wrote:
>
>
>>Have you figured out how to model loading coil of
>>particular inductance and physical size to reflect the real current drop across
>>it?
>
>
> Hi Yuri,
>
> From Roy's description, you published at your web site how to do this
> nearly a year ago. Have you lost that page?
>
> 73's
> Richard Clark, KB7QHC

What is a "current drop?"
73,
Tom Donaly, KA6RUH

## 479. Re: Another lie...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-15 15:52:34 UTC
From: richardharrison@webtv.net
Message-ID: <7792-416FF242-400@storefull-3254.bay.webtv.net>
Source record: 88378

Yuri Blanarovich, K3BU wrote:
"Have you figured out how to model loading coil of particular inductance and physical size to reflect the real current drop across it?"

Current drop across a coil is E/Z where Z is complex. If a reflection is involved in the antenna, there are multiple Es involved, perhaps.

Growing or shrinking current through a coil, generates a voltage which opposes current in the coil. Because of its opposing direction it is called "counter emf". The change in current in the coil generates the counter emf. A steady d-c current in a coil generates no emf.

A given length of wire has much greater counter emf when coiled than when stretched out straight. We say it has more "inductance". It`s because fields from close-wound turns intercouple. With 3 turns closewound in a coil, 3 times the lines of force cut 3 turns, so 9 times the counter emf is generated. As a first approximation, the inductance varies as the square of the number of turns.

Opposition of counter emf in a coil delays the rise of current in a coil from the phase of an a-c voltage. In a perfect coil with no resistance, the delay is 90-degrees or 1/4-cycle. Resistance, useful or useless, reducees the current delay. Due only to the L/R ratio, the phase delay imposed by a coil can vary from 90-degrees down to zero.

I did a web search on "r.r.a.a" which produced 590 hits. One of these was something posted by Roy Lewallen entitled "Inductor Operation". Roy had measured phase delay in a loading coil. If I understood Roy, he found no phase delay in an antenna loading coil.

In my opinion, he should find delay even in a coil feeding a dummy load, especially if the coil is large as compared with the dummy load.

Best regards, Richard Harrison, KB5WZI

## 480. Re: balcony railing mount for DBS dish

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-15 17:20:20 UTC
From: Seth <seth_lermanNOSPAM@hotmail.com>
Message-ID: <oFTbd.7137$GM1.2186@news01.roc.ny>
Source record: 88381
Cross-posted to: rec.radio.amateur.antenna,rec.video.satellite.dbs,rec.video.satellite.tvro,alt.dss.hack,alt.dbs.echostar.hack

"Gary" <satmaverick@REMOVEMEhotmail.com> wrote in message
news:QpTbd.109835$a41.92699@pd7tw2no...
>
> Like some stores where on the door it says they reserve the right to
> inspect
> packages, backpacks, purses etc brought into the store. Back in my legal
> relations class I learned that is against the law. They can say it all
> they
> want - they do not have that right. - In Canada anyway.

It's all a matter of interpretation. They do reserve that right. And if
you choose not to grant consent they can bar your entrance from said
establishment. The consumer then has the choice. Allow inspection or don't
enter.

No, they can't force your backpack open at the store threshold, but they can
make it a condition of being there.

## 481. Pipe antenna mast

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-15 17:24:23 UTC
From: Jimmie <Gfender@carolina.rr.com>
Message-ID: <bJTbd.62836$ci3.3662724@twister.southeast.rr.com>
Source record: 88394

There used to be a web site about building pipe antenna mast. The kind that looks like a giant telescoping antenna. I havent been there in years and cant find it now. I hope I am just googling for the wrong thing. I first learned about tit in an article on same in 73. Any info on this site or other similar would be greatly appreciated.

## 482. Re: Discone and quadrifilar helix ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-15 17:29:59 UTC
From: Jimmie <Gfender@carolina.rr.com>
Message-ID: <rOTbd.62837$ci3.3662847@twister.southeast.rr.com>
Source record: 88414

I used to rx wx images off of the sat. USed a pair of crossed dipoles with a reflector. Put it up on a pole high enough to clear the trees and you can recive the sat from nearly horizon to horizon.
"Thierry" <-> wrote in message news:416d4d56@news.vo.lu...
> Hi,
>
> To pick up a 137 MHz signal from wx satellite (POES), are the discone and
> quadrifilar helix antennas similar, I mean, they are different in design but
> for the rest ?
> Are they both omnidirectional and are they both able to change automatically
> the elevation and azimuth to the satellite direction without interruption
> and without requiring a rotator ? or only the helix provides this capability
> ?
>
> Thanks in advance
>
> Thierry, ON4SKY
> http://www.astrosurf.com/lombry
>
>
>

## 483. Re: Pipe antenna mast

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-15 18:06:51 UTC
From: AB2RC <AB2RC@localhost.localdomain>
Message-ID: <slrncn04q3.nr1.AB2RC@localhost.localdomain>
Source record: 88408

On 2004-10-15, Jimmie <Gfender@carolina.rr.com> wrote:
> cant find it now. I hope I am just googling for the wrong thing. I first
> learned about tit in an article on same in 73. Any info on this site or

I don't think I learned anything about tit in 73, but it might have been in
Playboy....

Sorry -- couldn't pass that one up.

--

Alex / AB2RC
There are two rules for success in life:
Rule 1: Don't tell people everything you know.

## 484. Do you also believe in the Tooth Fairy? (nt)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-15 18:12:09 UTC
From: Old Ed <eXseniorsDeleteThisAndTheX@earthlink.net>
Message-ID: <ZpUbd.4958$gy1.4320@newsread1.news.pas.earthlink.net>
Source record: 88412

(nt)

## 485. Re: BPL AOK!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-15 18:48:08 UTC
From: Noname <NobodyHome@Hotmail.com>
Message-ID: <MXUbd.2684$8W4.4233280@news.sisna.com>
Source record: 88373

"Fractenna"
> ...regarding BPL.

BPL sucks.

Why use HF spectrum when there is so much other, more suitable and much wider, spectrum available way up the bands? Between improved DSL (higher speed, much farther, as being implemented in the UK), Cable, WildBlue (satellite), and soon Wi-Max (35km, 56Mbps), BPL will be nothing more than a footnote.

In the future, some of those HF users being bothered by BPL might stoop to doing a quick 'sweep' across the bands. This would cause the BPL DSP algorithms to think that all frequencies are in local use thus lock-out ALL the frequency bins and effectively shut down the link for several minutes.

BPL is a REALLY stupid concept. Obviously the HF signal is going to leak out (and other HF is going to leak in). Dumb. Power lines aren't exactly twisted pair (close, but no cigar).

BPL has about as much future as Fractal Antennas (none).

## 486. Re: BPL AOK!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-15 18:53:05 UTC
From: fractenna@aol.com
Message-ID: <20041015145305.13199.00002098@mb-m28.aol.com>
Source record: 88376

>BPL has about as much future as Fractal Antennas

I couldn't agree more.

73,
Chip N1IR

## 487. logper

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-15 18:53:15 UTC
From: lem <lemmy@pen.nl>
Message-ID: <41701c9c$0$37789$e4fe514c@news.xs4all.nl>
Source record: 88383

who has buildingplans of a logperiodical antenna for vhf-uhf -svhf made on printboard.
sorry for bad english.

## 488. Re: Another lie...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-15 19:30:39 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <ckpadb$2l2$1@news.service.uci.edu>
Source record: 88379

Richard Harrison wrote:

> Yuri Blanarovich, K3BU wrote:
> "Have you figured out how to model loading coil of particular
> inductance and physical size to reflect the real current drop across
> it?"
>
> Current drop across a coil is E/Z where Z is complex. If a reflection is
> involved in the antenna, there are multiple Es involved, perhaps.
>
> Growing or shrinking current through a coil, generates a voltage which
> opposes current in the coil. Because of its opposing direction it is
> called "counter emf". The change in current in the coil generates the
> counter emf. A steady d-c current in a coil generates no emf.
>
> A given length of wire has much greater counter emf when coiled than
> when stretched out straight. We say it has more "inductance". It`s
> because fields from close-wound turns intercouple. With 3 turns
> closewound in a coil, 3 times the lines of force cut 3 turns, so 9 times
> the counter emf is generated. As a first approximation, the inductance
> varies as the square of the number of turns.
>
> Opposition of counter emf in a coil delays the rise of current in a coil
> from the phase of an a-c voltage. In a perfect coil with no resistance,
> the delay is 90-degrees or 1/4-cycle. Resistance, useful or useless,
> reducees the current delay. Due only to the L/R ratio, the phase delay
> imposed by a coil can vary from 90-degrees down to zero.
>
> I did a web search on "r.r.a.a" which produced 590 hits. One of these
> was something posted by Roy Lewallen entitled "Inductor Operation". Roy
> had measured phase delay in a loading coil. If I understood Roy, he
> found no phase delay in an antenna loading coil.
>
> In my opinion, he should find delay even in a coil feeding a dummy load,
> especially if the coil is large as compared with the dummy load.
>
> Best regards, Richard Harrison, KB5WZI

It might be profitable for you to actually try the measurement. Like
Roy, I also find no delay *across* a physically small coil. The coil
does cause a delay between current and voltage, and as theory would
indicate, that delay (and V/I phase relationship) appears everywhere in
the series circuit, rather than locally across the coil. But, as I
believe Reg and others have suggested previously, as the coil begins to
take on dimensions that are a larger faction of a wavelength,

propagation delays begin to produce additional effects, manifested in particular by the standing wave profile. In physically small, inductively large coils, I can find no propagation delay. This is consistent with the report on W8JI's web page. However I think it's reasonable to say that as the coil starts to become physically large, it begins to produce observable delays. These delays appear to be greater than one would expect for a straight conductor of the same length. Perhaps someone here can explain why that might be, but I am as yet unable to. I suspect that it's because as the coupling between turns is reduced, the coil begins to look less like an inductor, and more like a compact length of transmission line arranged in the shape of a helix.

73,

Jim AC6XG

## 489. Re: BPL AOK!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-15 19:37:55 UTC
From: Noname <NobodyHome@Hotmail.com>
Message-ID: <vGVbd.2685$7O6.4866192@news.sisna.com>
Source record: 88386

>> BPL has about as much future as Fractal Antennas (none).

"Fractenna"
> I couldn't agree more.

Yes, "none".

I'm glad that we agree on this point.

## 490. Re: N8WWM the felon cries when confonted

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-15 19:48:38 UTC
From: N8WWM <N8WWM@arrl.net>
Message-ID: <b21de0143aee12288d62dadbc1eb9c6e@localhost.talkaboutradio.com>
Source record: 88406

You guys are ganging up on me again.

## 491. Re: balcony railing mount for DBS dish

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-15 20:15:35 UTC
From: Magus <Magus@nope.com>
Message-ID: <HdWbd.41885$b5.2061307@news3.tin.it>
Source record: 88392
Cross-posted to: rec.radio.amateur.antenna,rec.video.satellite.dbs,rec.video.satellite.tvro,alt.dss.hack,alt.dbs.echostar.hack

Timothy Daniels wrote:
> "Gary" wrote:
>> Can you drill for a door eye viewer or mount a knocker
>> or even a hook for a Christmas decoration on the outside
>> of your door?
>
>
> "Can" and "permitted" are two different things.
> A strict interpretation of the CC&Rs permit neither,
> but the addition of knobs are overlooked as the doors
> originally had only pull handles, and many owners
> have installed knobs that match the pull handle.
> Likewise, the type of lock is overlooked as the
> original lock is no longer made and newer locks
> are more secure. No owner is permitted or allowed
> to remove the large custom pull handle as that would
> cause a major change in architectural appearance
> and a loss of uniformity. Christmas decorations,
> Thanks Giving decorations, Halloween decorations,
> etc, are classed as "temporary decorations of a
> seasonal nature", and they are allowed to remain for
> a maximum of 45 days - long enough to encompass
> all religious and seasonal needs. The goal has been
> to avoid permanent changes which some owners could
> bitch about but yet to allow individual expressions of festivity
> and/or religious observance. So far, things have worked
> out well. As with all rules governing a democratic organization,
> there needs to be both wiggle room and restraint, and
> balancing the two is the mark of a good governing body.
>

My first post here in years and it's not about DSS systems. Arggggggg...

From the U.S. Government Training Manual, No. 2000-25 WAR DEPARTMENT,
Washington, November 30, 1928 and prepared under direction of the Chief of
Staff, under the title of "Citizenship":

"Democracy: A government of the masses, authority derived through mass
meetings or any other form of direct expression; results in mobocracy;
attitude toward property is communistic negating property rights; attitude
toward law is that the will of the majority shall regulate whether it is
based upon deliberation or governed by passion, prejudice, and impulse,
without restraint or regard to consequences; its result is dem-o-gogism,
license, agitation, discontent and anarchy."

Democracy = communistic attitude toward property negating property rights.

> One of the major difficulties with HOAs is that most
> condo owners are previous apartment renters, and they
> don't know the problems of maintaining real property and
> the politics of common ownership. All they know is that
> they pay dues, and they assume that is like paying rent -
> someone *owes* them management services in return,
> and since they are now "owners", they should be allowed
> to do whatever they please with everything in sight.
> Never does it occur to them that *they* are responsible
> for the upkeep of the property, and *they* are responsible
> for behaving in a manner that doesn't offend other owners.
> And in the governing board, all they see is a bunch of peers
> acting like self-important ass holes rather than volunteers
> who are burdened with the job of maintaining the property
> and the living conditions for thankless people while keeping
> everyone off each others' backs. As with parents, you don't
> appreciate what members of governing boards have done
> for you until you become one yourself.
>
> *TimDaniels*

## 492. Re: BPL AOK!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-15 21:04:21 UTC
From: fractenna@aol.com
Message-ID: <20041015170421.22548.00000877@mb-m05.aol.com>
Source record: 88393

>Do you have any logical rebuttal to the bit about the BPL leaking out and
>ruining the HF spectrum (especially for SWLs, even more than Hams)?
><-ANSWER THIS.

My pleasure.

The FCC has, in it's changes announced yesterday, recognized that an occassional --bona fide-- RFI issue will arise. It has assumed that such cases will, in some circumstances, occur,and made it the onus of the BPL providers to provide for appropriate action and mitigation.

There is no evidence, nor reason to believe, that the low level of RF produced in BPL will propagate to bona fide interference levels, in the very or mid far-field.

That means that few active fixed-location radio amateurs will be affected in an adverse way: for example, most HF hams are inactive; and a vast majority of hams are VHF only these days. A simple sensitivity analysis suggests potential cases will be a few hundred in the worst, case, a few dozen in the best case.

You may hear BPL; the issue is whether it constitutes true interference. In a vast, vast majority of cases the answer is, and will be, 'no'.

Thus cases will be rare rather than common. Certainly less common than, say, TVI issues in the early years of television. (We all seem to forget that many predicted the downfall of ham radio when tv came into common usage.)

As for SWL'ing, I am not sure, given the redundancy of bands and the internet, that the broadcasts will be compromised. Is there evidence for this? Why is this important? For example: other than some indescribable indulgence, is it critical to hear Radio Tuva on the 30M band? Is the 40M band good enough ?

Would you be so kind as to ID? This screen you hide behind seems rather compromising, and unnecessary.

73,
Chip N1IR

## 493. Re: BPL AOK!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-15 21:06:23 UTC
From: fractenna@aol.com
Message-ID: <20041015170623.22548.00000878@mb-m05.aol.com>
Source record: 88397

>>> BPL has about as much future as Fractal Antennas (none).
>
>"Fractenna"
>> I couldn't agree more.
>
>Yes, "none".
>
>I'm glad that we agree on this point.
>

If you mean that fractal antennas have no impact on your life, I take this as axiomatic.

I repeat, I agree that BPL has about as much future as fractal antennas. I agree heartily; both have bright futures indeed!

73,
Chip N1IR

## 494. Re: BPL AOK!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-15 21:11:13 UTC
From: k3bu@aol.comNoUsama
Message-ID: <20041015171113.21374.00002022@mb-m15.aol.com>
Source record: 88404

>BPL will be one of many options many folks will have, and in many cases it
>will
>be the only and/or best one. That is why it will be successful in the United
>States.
>
>Other options are bound to capture relevant market share as well. It's a big
>country and a huge market, easily amenable to several tech paths Everyone

Freak me up Scotty!
As they say in Bush country - Bulsheeeeeet!

BUm

Is it universities that are screwing up brains?

## 495. Re: Another lie...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-15 21:20:28 UTC
From: richardharrison@webtv.net
Message-ID: <19873-41703F1C-18@storefull-3251.bay.webtv.net>
Source record: 88391

Jim Kelley wrote:
"The coil does cause a delay between current and voltage, and as theory would indicate that delay (and V/I phase relationswhip) appears everywhere in the series circuit."

As an example, place a perfect coil and a perfect resistor in a series combination. The voltage drop across the resistor is exactly in-phase with the current throuigh the resistor. It is independent of the phase of the circuit current. The voltage drop across the coil precedes the current through the coil by 90-degrees.

The phase of current in the series circuit with respect to the voltage applied to the circuit is determined with vector math.

Best regards, Richard Harrison, KB5WZI

## 496. Re: Another lie...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-15 21:33:42 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <WmXbd.14114$nj.13591@newssvr13.news.prodigy.com>
Source record: 88403

Richard Harrison wrote:
> Yuri Blanarovich, K3BU wrote:
> "Have you figured out how to model loading coil of particular
> inductance and physical size to reflect the real current drop across
> it?"
>
> Current drop across a coil is E/Z where Z is complex. If a reflection is
> involved in the antenna, there are multiple Es involved, perhaps.
>
(the rest snipped)
> Best regards, Richard Harrison, KB5WZI
>

Richard, there is no such thing as a "current drop."
73,
Tom Donaly, KA6RUH

## 497. Re: BPL AOK!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-15 21:42:33 UTC
From: "Dee D. Flint" <deeflint01@comcast.net>
Message-ID: <PIWdnU2ifPPF2e3cRVn-hA@comcast.com>
Source record: 88380

"Fractenna" <fractenna@aol.com> wrote in message
news:20041015150635.13148.00002832@mb-m28.aol.com...
> >
> >Why use HF spectrum when there is so much other, more suitable and much
> >wider, spectrum available way up the bands
>
> Because the extant infrastructure is overly lossy at higher frequencies.
>
> It IS extant infrastructure. Hard to argue that point, my friend.
>

Actually calling it an extant infrastructure is a gross oversimplification. They have to add signal boosters every couple of miles plus bypasses to every transformer. Where the lines are in the average condition for this country (which equates to poor condition), they will have to upgrade the lines themselves. Where there is noise on the lines, say due to industry (welders for example really put a lot of noise across them), they'll have to track it down and filter it out. Dry areas have a lot of static and they may have to shield the lines for reliable data transfer. The plains states have a lot of thunderstorms and once again they may have to shield the lines to have reliable performance.

There's a lot of expense in implementing this and a lot of time consuming work. The rural areas will never get it as there simply aren't enough customers per mile to break even. Besides by the time they get the rural areas covered, if they ever do, these people will have gone to satellite or WI-FI and there won't be a market.

> BPL will be one of many options many folks will have, and in many cases it
will
> be the only and/or best one. That is why it will be successful in the
United
> States.
>

Not true. Small towns and larger already have dial up and many have DSL and cable access. Some already have WI-FI and satellite. People outside of the towns will NOT be served regardless of the marketing hype due to cost. Customers per mile won't justify it.

> Other options are bound to capture relevant market share as well. It's a
big
> country and a huge market, easily amenable to several tech paths Everyone
> wins! What a deal!
>

For BPL to capture and KEEP market share, it's going to have to be as cheap as dial up and as fast and reliable as cable or DSL. Otherwise it may get implemented in spots but is doomed to basically wither and die on the vine.

> That is why BPL is supported by both Presidential candidates. One of the few
> points both these gentlemen agree on.:-)
>

No they support it because of the marketing hype that has been done and the fact that neither is really conversant with the technology. After all they few it as having an infrastructure in place, which is in fact not true.

Dee D. Flint, N8UZE

## 498. Re: BPL AOK!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-15 22:26:59 UTC
From: fractenna@aol.com
Message-ID: <20041015182659.22466.00000890@mb-m06.aol.com>
Source record: 88407

>Actually calling it an extant infrastructure is a gross oversimplification.

I beg to differ. I used the word properly.

>They have to add signal boosters every couple of miles plus bypasses to
>every transformer. Where the lines are in the average condition for this
>country (which equates to poor condition), they will have to upgrade the
>lines themselves. Where there is noise on the lines, say due to industry
>(welders for example really put a lot of noise across them), they'll have to
>track it down and filter it out. Dry areas have a lot of static and they
>may have to shield the lines for reliable data transfer. The plains states
>have a lot of thunderstorms and once again they may have to shield the lines
>to have reliable performance.
>

Minor logistical issues; part of doing business.

>There's a lot of expense in implementing this and a lot of time consuming
>work.

Incremental.

The rural areas will never get it as there simply aren't enough
>customers per mile to break even. Besides by the time they get the rural
>areas covered, if they ever do, these people will have gone to satellite or
>WI-FI and there won't be a market.
>

Speculation; asserted but not shown.

>> BPL will be one of many options many folks will have, and in many cases it
>will
>> be the only and/or best one. That is why it will be successful in the
>United
>> States.
>>
>
>Not true. Small towns and larger already have dial up and many have DSL and
>cable access. Some already have WI-FI and satellite. People outside of the
>towns will NOT be served regardless of the marketing hype due to cost.
>Customers per mile won't justify it.

Obviously there will be market locations where the business case is compelling;
others where it will be not. Are you saying that they haven't done the business
case? I don't see evidence that your assertions come from such analyses.

The important point is that ham radio is not a factor in the business case, in my opinion. Ham radio: 'we did you already, didn't we?' Why should we belabor a point already dealt with, and deal with in great sensitivity and fairness?.

>> Other options are bound to capture relevant market share as well. It's a
>big
>> country and a huge market, easily amenable to several tech paths Everyone
>> wins! What a deal!
>>
>
>For BPL to capture and KEEP market share, it's going to have to be as cheap
>as dial up and as fast and reliable as cable or DSL. Otherwise it may get
>implemented in spots but is doomed to basically wither and die on the vine.
>

Yes, I agree. Except the 'doomed' case sounds like 20 sigma, to me.

>> That is why BPL is supported by both Presidential candidates. One of the
>few
>> points both these gentlemen agree on.:-)
>>
>
>No they support it because of the marketing hype that has been done and the
>fact that neither is really conversant with the technology.

That is SO wrong. Senator Kerry--I know as a fact--is VERY cognizant in telecom matters, which include BPL. His staff is superb. I cannot speak from experience regarding President Bush, although I like what I hear.

After all they
>few it as having an infrastructure in place, which is in fact not true.

Sure it is. Infrastructure is not the same as implementation.

>
>Dee D. Flint, N8UZE
>

73,
Chip N1IR

## 499. Re: Discone antenna & antenna tuner?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-15 22:29:35 UTC
From: fractenna@aol.com
Message-ID: <20041015182935.22466.00000891@mb-m06.aol.com>
Source record: 88388

>Greetings all!..I've got one of them discone antennas, you know, like
>28-500mhz, blah..blah...on the roof...do I have to use an antenna
>tuner if I would, let's say, try to operate on 2/6 or 440?... I don't
>want to damage my UHF xcvr if there is a high SWR...any info from
>you experts or who done did that is greatly appreciated...You all,
>have a nice weekend & 73's....tony...wa9yoz...Amiga computer user
>going over 12 years now.. Ciao!

Hi Tony,

The true discone part only works above about 100 MHz. Occassionally these hybrid antennas have spikes of SWR from 100 MHz to 440, but I would say you should probably be fine--without tuner.

73,
Chip N1IR

## 500. Re: I am normally mild and polite...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-15 22:44:49 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <qpYbd.37007$kz3.18822@fed1read02>
Source record: 88372

"Fractenna" <fractenna@aol.com> wrote in message
news:20041015131613.01927.00001336@mb-m23.aol.com...
> Dear OM,
>
> I am sorry that you take personal offense; I will be happy to state why
> this
> was posted:
>
> 1) it has been an ongoing topic on this NG for a long time, and now we
> have
> final resolution;
> 2) I did not expect nor require anyone to respond, ergo the 'troll factor'
> is
> not an issue;
> 3) The FCC has taken careful and measured steps to assure that US amateurs
> remain with the enjoyment of the HF bands, given the sharing of spectrum
> with
> BPL.
> 4)It is the very best scenario for all involved. That is definitely worth
> gloating over.
>
> Wishing you the best,
>
> Chip N1IR

The "very best solution" would be to allow the utilities to use their extensive system of power poles to string a fiberoptic cable to residences (either direct, or maybe the last half-mile as an RF node). If the power companies had spent their lobbying and legal money on installing this base, a lot of people would now have high-speed net connections.

BPL is simply a poor technical solution, and is an interim communications step that should be bypassed. You may gloat over your prediction accuracy, but certainly not over the existence of any form of BPL.

Ed
wb6wsn

## 501. Re: BPL AOK!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-15 22:54:00 UTC
From: fractenna@aol.com
Message-ID: <20041015185400.08241.00001977@mb-m10.aol.com>
Source record: 88375

>Guess it depends on your definition of "none". <g>
>
>
>Ed

Don't follow...what is context?

73,
Chip N1IR

## 502. Re: I am normally mild and polite...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-15 22:57:29 UTC
From: fractenna@aol.com
Message-ID: <20041015185729.08241.00001978@mb-m10.aol.com>
Source record: 88398

>BPL is simply a poor technical solution, and is an interim communications
>step that should be bypassed.

Why wait? People have things to say and see right now.

Ultimately, all telecom systems transition. BPL has the good fortune of having an infrastructure and a need right now; tomorrow; and for some time to come.

Seize the day! Solve a pressing problem. BPL looks very promising.

73,
Chip N1IR

## 503. Re: BPL AOK!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-15 22:58:15 UTC
From: sideband <AINO8SPAMW@cac.net>
Message-ID: <bCYbd.17831$Qv5.10704@newssvr33.news.prodigy.com>
Source record: 88385

You never were much for details, were you?

>>BPL has about as much future as Fractal Antennas (none).

Note the (none) at the end of the sentence, before the period.

-SSB

Fractenna wrote:

>>Guess it depends on your definition of "none". <g>
>>
>>
>>Ed
>
>
> Don't follow...what is context?
>
> 73,
> Chip N1IR

## 504. Re: I am normally mild and polite...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-15 22:59:27 UTC
From: sideband <AINO8SPAMW@cac.net>
Message-ID: <jDYbd.17832$Qv5.3918@newssvr33.news.prodigy.com>
Source record: 88410

At the expense of interference on the HF bands? No thanks.

-SSB

Fractenna wrote:

>>BPL is simply a poor technical solution, and is an interim communications
>>step that should be bypassed.
>
>
> Why wait? People have things to say and see right now.
>
> Ultimately, all telecom systems transition. BPL has the good fortune of having
> an infrastructure and a need right now; tomorrow; and for some time to come.
>
> Seize the day! Solve a pressing problem. BPL looks very promising.
>
> 73,
> Chip N1IR
>
>

## 505. Re: BPL AOK!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-15 23:02:39 UTC
From: fractenna@aol.com
Message-ID: <20041015190239.08241.00001979@mb-m10.aol.com>
Source record: 88405

Don't follow...are you saying that fractal antennas don't have a future? Why would you say this?

It's a bit off topic, but if you know something I don't on this subject, it would be a wonderful opportunity to learn. Feel free to ID and e-mail me off NG.

73,
Chip N1IR

## 506. Re: EH-antenna: sensation or fraude?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-15 23:11:12 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <9OYbd.37290$kz3.35540@fed1read02>
Source record: 88396

"k4wge" <k4wge@arrl.net> wrote in message
news:7b671b4e.0410140746.7f6f74e5@posting.google.com...
>>
>>
>> And the crap begins to flow, now that classical physics has been slain.
>>
>> Ed
>> wb6wsn
>
> Physics? You want physics? I'll show you physics :-)
>
>
> "The voltage and current applied to a Hertz antenna are in phase,
> therefore the E and H fields are not in phase, thus radiation does not
> occur until a great distance from the antenna.

Now that explanation is worth a patent all by itself! If "radiation does not occur until a great distance from the antenna", just how does the energy sneak out that great distance and suddenly manifest itself? Don't know about your world, but I've been in the near field of a lot of antennas, and tissue heating easily proved that they were radiating.

I believe the quote is:

"You want physics?"
"I think I'm entitled..."
"You want physics?!"
"I want the truth!"
"You can't handle physics!"

Anyway, patents and glib text are cheap (well, maybe not patents), but far-field performance is the ultimate judge. Build me a couple of EH's, and compare them to dipoles, say, mountain-top to mountain-top. Get 3rd party witnessing, and publish. You know, extraordinary claims demand extraordinary proof.

Ed
wb6wsn

Ed
wb6wsn

## 507. Re: BPL AOK!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-15 23:28:49 UTC
From: fractenna@aol.com
Message-ID: <20041015192849.26483.00002715@mb-m07.aol.com>
Source record: 88389

>1. I ID every time I post. If you can't figure it out, it goes to show

No, there is no positive ID.

>your lack of attention to detail.

>2. You started pushing your trip trap about fractal antennas when?

My discovery dates to 1988.

Was
>it 1999-ish? I have yet to see a single commercial offering of such
>antennas.

Well, let's see... today I worked on 6 different project/ orders for customers, and three were commercial ones. Two were, well, something else:-) The other was product dev.

The staff worked on 4 commercial ones.

At any given time there are anywhere many different commercial orders for various different designs. Ergo, I respect the fact that your knowledge is incomplete, and certainly not factually based. Happy to discuss this with your further off line if you wish.

Draw your own conclusions there.
>

Money in the bank:-)

>You mean you don't remember the sound thrashing I gave you last time,
>when you got all defensive and evasive when asked for more performance
>data on the antennas?

Nope. That's not factually true, and I don't know who you are. Who are you?

I was willing to give you the benefit of the
>doubt then, but you proved to me that your claims then were unfounded
>and without basis, either in practical application or in theory.
>

Hmmm...let's take oh, one wee example: what are the geometrical requirements for frequency invariance? Who found them? What do they have to do with fractals?

>I don't see a future for either BPL or fractal antennas.
>

I appreciate your opinion.

Being somewhat better informed on the facts, I have a compelling reason to opine that you are incorrect.

>'But they radiate!!" you say.. yeah, so do my rain gutters.

I never, ever, said this.

>-SSB

Love to know who you are, and to take this of-NG, as I requested.

With best wishes,
Chip N1IR

## 508. Re: BPL AOK!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-15 23:35:32 UTC
From: fractenna@aol.com
Message-ID: <20041015193532.08576.00002376@mb-m07.aol.com>
Source record: 88401

>>1. I ID every time I post. If you can't figure it out, it goes to show

A friend says you are a truckdriver in Michigan. Is this true? If so, it is important to know your perspective given your comments.

Mind you, truckdriving is a noble and important job--but says nothing about a knowledge base on antenna technologies; BPL; and so on.

Oh well, nice to beep ya!

10-4 there good buddy!

Chip N1IR

## 509. Re: balcony railing mount for DBS dish

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-16 00:47:53 UTC
From: Fat Bastard <a_fat_bastard-NOSPAM-@hotmail.com>
Message-ID: <ckpr1f02nto@news3.newsguy.com>
Source record: 88382
Cross-posted to: rec.radio.amateur.antenna,rec.video.satellite.dbs,rec.video.satellite.tvro,alt.dss.hack,alt.dbs.echostar.hack

<kashe@sonic.net> wrote in message
news:fs3vm0p69ij18vta3f4hq7mc0hge0aee2f@4ax.com...
> As when using in terrorem clauses, designed to frighten
> someone from taking legal action to recover loss. The classic example
> is the signs some cleaners post saying that clothes left over X days
> can be sold for charges and need not be sold for actual cash value.
> The signs normally specify X days as far shorter than that specified
> by law. If the cleaner actually sells the clothes before the legally
> required time, he is liable for damages for the entire market value of
> the clothes less the agreed-upon cleaning charge.

Exactly. As a small business owner, I too deal with that every day. We have what is commonly referred to as a 'mechanics lien" on any items we work on, and if the item is not claimed within a certain period of time, as determined by law, the item is by default OURS, and we can sell it for whatever we want, to recoup some expenses. I rarely ever do that, because there is not much reason to since i have space to store things and the customer typically comes back eventually. lol

> >Walkways have never needed a railing, unless they are above ground level
> >(2nd through xxx stories high) and are required for "safety" to prevent
> >someone from falling.
>
> Or to prevent people from falling into something like a pond
> traversed by the walkway.

true. if there is a pond, or something else in an area that they don't want people trampling on, or falling into, they may put up a railing, or a fence, but a walkway in and of itself doesn't necessitate a railing.

## 510. Re: balcony railing mount for DBS dish

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-16 00:52:19 UTC
From: Fat Bastard <a_fat_bastard-NOSPAM-@hotmail.com>
Message-ID: <ckpr9o02o66@news3.newsguy.com>
Source record: 88390
Cross-posted to: rec.radio.amateur.antenna,rec.video.satellite.dbs,rec.video.satellite.tvro,alt.dss.hack,alt.dbs.echostar.hack

"Gary" <satmaverick@REMOVEMEhotmail.com> wrote in message
news:QpTbd.109835$a41.92699@pd7tw2no...
>
> Like some stores where on the door it says they reserve the right to
inspect
> packages, backpacks, purses etc brought into the store. Back in my legal
> relations class I learned that is against the law. They can say it all
they
> want - they do not have that right. - In Canada anyway.

That was my understanding here in the states as well. Same goes for them inspecting your bags/packages/etc. as you LEAVE a business. However, they have gotten around that by claiming they are doing it for YOUR benefit, to be sure they didn't forget to give you one of your items you paid for.

In todays world, i can understand them searching your bags if you are entering into a large public arena (sporting events, etc.), but it's still a little intrusive, and some people take it way too far. you'll notice that they don't physically touch your bag or anything when they inspect, they actually have YOU pull stuff out of the way,e tc., and they just glance in real quick, to be sure you aren't carrying anything you aren't supposed to. (this doesn't include airports, etc., where they do physically handle things regularly, but the average store, etc. that wants to check your bags won't touch them physically, at least not usually, and not here in the states).

## 511. Re: balcony railing mount for DBS dish

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-16 01:01:44 UTC
From: Fat Bastard <a_fat_bastard-NOSPAM-@hotmail.com>
Message-ID: <ckprre02oos@news3.newsguy.com>
Source record: 88374
Cross-posted to: rec.radio.amateur.antenna,rec.video.satellite.dbs,rec.video.satellite.tvro,alt.dss.hack,alt.dbs.echostar.hack

"Timothy Daniels" <TDaniels@NoSpamDot.com> wrote in message
news:3-udnRuwoIvlPfLcRVn->
> > Walkways have never needed a railing, unless they are
> > above ground level (2nd through xxx stories high) and
> > are required for "safety" to prevent someone from falling.
> > A walkway is simply a passage for walking.
>
>
> Nonsense. Have you ever seen walkways at a
> condo complex for the elderly? Ground level
> walkways frequently have railings because of need.

LOL, You are trying to twist the facts. The fact is, a WALKWAY, by
definition does NOT include a railing, PERIOD. railings added for other
purposes, such as the elderly so they can hold on while moving around, do
NOT magically make them a requirement for a "walkway". Plain and simple!

> > Main Entry: walk�way
> > Pronunciation: 'wok-"wA
> > Function: noun
> > : a passage for walking : WALK
> >
> > Note, there is NO REFERENCE to a railing.
> > I've never known of a walkway to include a
> > railing as part of the definition.
>
>
> If you are arguing that a walkway needn't have a railing
> to be defined as a walkway, OK, but neither I nor
> anyone else claimed that a railing was a defining part
> of a "walkway".
>
>
> > Nor have I known the definition of Patio to have a fence.
> >
> > Main Entry: pa�tio
> > Pronunciation: 'pa-tE-"O also 'p�-
> > Function: noun
> > Inflected Form(s): plural pa�ti�os
> > Etymology: Spanish
> > 1 : COURTYARD; especially : an inner court open to the sky
> > 2 : a recreation area that adjoins a dwelling, is often paved, and is
> > adapted especially to outdoor dining

> >
> > no reference to a fence here either. (courtyard however does
> > reference being an "enclosure")
>
>
> Right. The fence around a patio is part of the Common Area,
> not part of the Unit or a part of the patio.

Yes, you could argue that the fence around a patio in this case is part of the common area, because the patio doesn't reference a fence. I'd probably still challenge it, but this one might be a little tougher. It however would depend on the location with regards to the property owned by the tenant, etc..

>
> So what? Our patios are all fenced. The fence is 8 feet
> high and built of tongue 'n groove boards so that no one
> can see in. People like the privacy.

Are you sure you have "patio's" and not "yards"? ;)

>
>
> > Now, note the definition of BALCONY:
> >
> >
> > Main Entry: bal&#65533;co&#65533;ny
> > Pronunciation: 'bal-k&-nE
> > Function: noun
> > Inflected Form(s): plural -nies
> > Etymology: Italian balcone, from Old Italian, large window, of
> > Germanic origin; akin to Old High German balko beam -- more at BALK
> > 1 : a platform that projects from the wall of a building and is
> > enclosed by a parapet or railing
> > 2 : an interior projecting gallery in a public building (as a
theater)
> > - bal&#65533;co&#65533;nied /-nEd/ adjective
> >
> > See how it specifically states "and is enclosed by a parapet or
> > RAILING". So, without a railing, it is not really a "balcony", but
rather a
> > "patio". :)
>
>
> Fat Bastard, you've become tedious.
>
> *TimDaniels*

You are just angry that I have proper definitions, that defy your own personal beliefs. the facts are, definitions hold true in most court cases, because these are the common reference points, and commonly accepted

definitions for such items, that MOST people would KNOW if they did a little research. Therefore, if the majority believe that the definition is as described in common reference material, it is FACT, and will usually support the argument. I would challenge your CC&R's any day of the week based on these simple facts. Tedium is what makes a WINNER. ;)

>

## 512. Re: balcony railing mount for DBS dish

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-16 01:02:09 UTC
From: Fat Bastard <a_fat_bastard-NOSPAM-@hotmail.com>
Message-ID: <ckprs702ops@news3.newsguy.com>
Source record: 88384
Cross-posted to: rec.radio.amateur.antenna,rec.video.satellite.dbs,rec.video.satellite.tvro,alt.dss.hack,alt.dbs.echostar.hack

On another note, you are aware i'm just having a little fun with you, and this subject, aren't you?

"Timothy Daniels" <TDaniels@NoSpamDot.com> wrote in message news:3-udnRuwoIvlPfLcRVn-pA@comcast.com...

## 513. Re: BPL AOK!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-16 01:03:43 UTC
From: Fractenna <fractenna@aol.com>
Message-ID: <Ot_bd.2695$Lj5.8306850@news.sisna.com>
Source record: 88409

"Fractenna"
> Would you be so kind as to ID? This screen you
> hide behind seems rather compromising, and
> unnecessary.

Sure thing.

## 514. Re: BPL AOK!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-16 01:03:43 UTC
From: Fractenna <fractenna@aol.com>
Message-ID: <Vt_bd.2696$Bj5.8299680@news.sisna.com>
Source record: 88413

"Fractenna"
> Would you be so kind as to ID? This screen you
> hide behind seems rather compromising, and
> unnecessary.

Sure thing.

## 515. Re: I am normally mild and polite...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-16 01:08:32 UTC
From: Mike Coslo <mcoslo@adelphia.net>
Message-ID: <dradnYe5RoQT6e3cRVn-2A@adelphia.com>
Source record: 88395

Ed Price wrote:

>
> "Fractenna" <fractenna@aol.com> wrote in message
> news:20041015131613.01927.00001336@mb-m23.aol.com...
>
>> Dear OM,
>>
>> I am sorry that you take personal offense; I will be happy to state
>> why this
>> was posted:
>>
>> 1) it has been an ongoing topic on this NG for a long time, and now we
>> have
>> final resolution;
>> 2) I did not expect nor require anyone to respond, ergo the 'troll
>> factor' is
>> not an issue;
>> 3) The FCC has taken careful and measured steps to assure that US
>> amateurs
>> remain with the enjoyment of the HF bands, given the sharing of
>> spectrum with
>> BPL.
>> 4)It is the very best scenario for all involved. That is definitely worth
>> gloating over.
>>
>> Wishing you the best,
>>
>> Chip N1IR
>
>
>
> The "very best solution" would be to allow the utilities to use their
> extensive system of power poles to string a fiberoptic cable to
> residences (either direct, or maybe the last half-mile as an RF node).
> If the power companies had spent their lobbying and legal money on
> installing this base, a lot of people would now have high-speed net
> connections.

Ed, if my understanding is correct, the power companies will indeed be stringing fiber optic cables. There will be one going right by your house if you are blessed to live in an bpl blessed neighborhood. THe infrastructure must be built. I think there is an impression that the power companies are just going to alligator clip a bpl signal on the lines at the generating plant. Power lines are fair at delivering low

frequency and high power. At HF they aren't so hot.

So while you have the leaky, degraded signal with the dubious convenience of being placed from the HV lines to the other side of your line transformer (and let's just hope that has been worked out to be safe) wouldn't it just make more sense to get the fast signal from the proper source? Going right by your house....

BPL is the industry equivalent of putting bicycle tires on a top fuel dragster.

A triumph of politics over technology.

- Mike KB3EIA -

## 516. Re: Why do WiFi basestations use two antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-16 01:08:52 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <tw_bd.37586$kz3.18770@fed1read02>
Source record: 88415
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,uk.radio.amateur,uk.tech.broadcast

"Jock." <real_class_a@yahoo.co.uk> wrote in message
news:io9qm05n2qc49b5m00fka06nrbmnf4jffl@4ax.com...
> On Wed, 13 Oct 2004 03:07:11 -0700, "Ed Price" <edprice@cox.net> wrote:
>

>>And as far as I can remember, the French plan for Mideast
>>stability, protection of human rights and assurance of World oil supplies
>>just wasn't working. Uhh, they DID have a plan, didn't they?
>
> They may well have had, but I'd bet it didn't involve illegal, Nazi-style
> invasion and occupation of a sovereign country.

Then you agree that the French did learn something from their disaster in
Indochina. But not enough to avoid invading Egypt in 1956. Maybe the
post-grad course in Algeria was what turned them into peace-loving
post-colonialists.

Yes, the French have tried mightily to avoid foreign provocation. Why, take
Rwanda. As the genocide reached its peak in the early summer of 1994,
France's President Franï¿½ois Mitterand was reported to say, "In such
countries as this, genocide is not too important." IIRC, the French Foreign
Legion was really on a protracted African vacation in Zaire in 1978.

I cite these instances not to demean France (although I think the average
Frenchman deserves a better government than he usually gets), but to deflate
the Francophile pomposity you wear as a veneer over your hatred of America
in general and the present administration in particular.

Nothing I say will change your pickled attitude, so I'll grant you the
high-ground of a last idiotic reply.

Ed
wb6wsn

## 517. Re: BPL AOK!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-16 01:13:50 UTC
From: NOYB <NoName@Hotmail.com>
Message-ID: <mB_bd.2697$yx5.8463436@news.sisna.com>
Source record: 88377

"Fractenna"
> You're named Chris... <snip>
> 73,
> Chip N1IR

Nathan, you're still an asshole.

## 518. Re: BPL AOK!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-16 01:25:58 UTC
From: NOYB <NoName@Hotmail.com>
Message-ID: <zP_bd.2698$iA5.8588412@news.sisna.com>
Source record: 88402

"Fractenna"
> There is no evidence, nor reason to believe, that the
> low level of RF produced in BPL will propagate to
> bona fide interference levels, in the very or mid
> far-field.

See ? There's the bit your not getting.

I listen to SW. My neighbor signs-up for BPL. We share a pole-mounted transformer. The AC in MY house, under my desk, will be infested with BPL.

Eventually someone might drop by and install some ferrite onto my power line drop and that might reduce the noise by a few dB at certain frequencies.

The whole thing is a kludge.

By the way, there are plenty of reports of interference in other countries and in the US trials. Start with ARRL.org and read.

## 519. Re: balcony railing mount for DBS dish

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-16 01:40:04 UTC
From: Timothy Daniels <TDaniels@NoSpamDot.com>
Message-ID: <6Y-dnXRztv9v5u3cRVn-ow@comcast.com>
Source record: 88399
Cross-posted to: rec.radio.amateur.antenna,rec.video.satellite.dbs,rec.video.satellite.tvro,alt.dss.hack,alt.dbs.echostar.hack

"Fat Bastard" wrote:
> Are you sure you have "patio's" and not "yards"? ;)

As a matter of fact, all open air portions of our
Units are called "balconies" in our CC&Rs,
whether they are on the ground or protruding
from elevated floors. But legal definitions would
just confuse you.

> You are just angry that I have proper definitions...

You have dictionary definitions of words in
everyday use - NOT legal definitions. As long
as our CC&Rs defined a "rumpus room", they
could call patios and balconies "rumpus rooms"
and be just as valid. In short, you are stuck on
everyday definitions and mistakingly apply them
to legal documents.

*TimDaniels*

## 520. Re: balcony railing mount for DBS dish

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-16 01:41:11 UTC
From: Timothy Daniels <TDaniels@NoSpamDot.com>
Message-ID: <5KOdnQY3idKo4e3cRVn-vw@comcast.com>
Source record: 88387
Cross-posted to: rec.radio.amateur.antenna,rec.video.satellite.dbs,rec.video.satellite.tvro,alt.dss.hack,alt.dbs.echostar.hack

"Fat Bastard" wrote:
> On another note, you are aware i'm just having a little fun with you, and
> this subject, aren't you?

I am aware that you are misinforming the public.

*TimDaniels*

## 521. Re: BPL AOK!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-16 02:18:50 UTC
From: fractenna@aol.com
Message-ID: <20041015221850.11378.00001929@mb-m15.aol.com>
Source record: 88417

>Subject: Re: BPL AOK!
>From: "Fractenna" fractenna@aol.com
>Date: 10/15/2004 9:03 PM Eastern Daylight Time
>Message-id: <Vt_bd.2696$Bj5.8299680@news.sisna.com>
>
>"Fractenna"
>> Would you be so kind as to ID? This screen you
>> hide behind seems rather compromising, and
>> unnecessary.
>
>Sure thing.
>

Dear Bogus,

Be a good boy and go hide again. Sisna knows the difference between you and the genuine article--at least they do now.

73,
Chip N1IR

## 522. Re: BPL AOK!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-16 02:45:25 UTC
From: "There u have it..." <NOYB@notSISNA.com>
Message-ID: <dX%bd.2702$3X5.9247846@news.sisna.com>
Source record: 88418

"Fractenna"
> ...what is the value of SW
> BCB in an era of web cast?

There ya go.

If you're willing to trade-off the HF spectrum against YAIP (yet another Internet Provider), and a sucky one at that, then BPL is a 'worthwhile' (sic) technology. We'll mark you down as firmly pro-BPL, anti-amateur radio, since you can spend your nights annoying people on the 'net rather than on the air.

If you don't understand the ultimate utility of the HF spectrum then <rolls eyes>... SWL includes a whole world more than just broadcasting. Your ignorance, or at least a very poor assumption, is showing. And BCB is the wrong acronym and the wrong band. Again, YIIS.

You've picked an argument and lost (badly).

## 523. Re: EH-antenna: sensation or fraude?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-16 02:59:46 UTC
From: "J. Mc Laughlin" <jcm@power-net.net>
Message-ID: <10n13jm856mur6d@corp.supernews.com>
Source record: 88419

Art has invoked my name so the genie comes forth to tell a (short) story
somewhat simplified:

A client invented a useful device. Application was made. A long time
passed. Application was rejected in a communication that contained only
English words, but that was unintelligible. Efforts were made for
clarification. "Clarifications" were unintelligible. Client fell on hard
times and could no longer pay more than court fees. Another patent attorney
and I filed an appeal a significant part of which consisted of quotations
from PTO communications. (As in engineering, when doing really serious
stuff one wants a second opinion.) A panel of three of the most senior
judges held in our favor with a chastisement (to us) for a non-traditional
presentment. Examiner appealed. Another three judge panel again held for
our side and ordered the patent to be issued. Patent was issued some five
or six years after the start of this process. Someday, the client might
pay, but is under no obligation to do so and we have the satisfaction of
having done the right thing.

I do not think that things like this happened in the PTO in the "old"
days. All of those examiners could read and write in the English language.
Many, perhaps most, saw their time in the PTO as part of an apprenticeship
not as a job.

As an aside: I admonish you not to believe the characterizations you
see on TV.

73 Mac N8TT

--
J. Mc Laughlin; Michigan U.S.A.
Home: JCM@Power-Net.Net

## 524. Re: Discone antenna & antenna tuner?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-16 03:55:16 UTC
From: Mispan <nospam@hotmail.com>
Message-ID: <2tbkk3F1uiun8U1@uni-berlin.de>
Source record: 88416

"Fractenna" <fractenna@aol.com> wrote in message
news:20041015182935.22466.00000891@mb-m06.aol.com...
> >Greetings all!..I've got one of them discone antennas, you know, like
> >28-500mhz, blah..blah...on the roof...do I have to use an antenna
> >tuner if I would, let's say, try to operate on 2/6 or 440?... I don't
> >want to damage my UHF xcvr if there is a high SWR...any info from
> >you experts or who done did that is greatly appreciated...You all,
> >have a nice weekend & 73's....tony...wa9yoz...Amiga computer user
> >going over 12 years now.. Ciao!
>
> Hi Tony,
>
> The true discone part only works above about 100 MHz. Occassionally these
> hybrid antennas have spikes of SWR from 100 MHz to 440, but I would say
you
> should probably be fine--without tuner.
>
> 73,
> Chip N1IR

Discone lower frequency cutoff is near the length of the skirt (1/4
wavelength) so measure it 100 Mhz is about 2.5 feet, 28 would be 9 foot.
Impeadance is great over the range, should not need tuner, unless the
discone is built cheap. I have a Mil one, good from near 200 to about 1.2
Ghz high power. It has 12 rods that make up the skirt. Google it to check.
UHF should be great.

## 525. Re: BPL AOK!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-16 04:06:45 UTC
From: k3bu@aol.comNoUsama
Message-ID: <20041016000645.05436.00001452@mb-m20.aol.com>
Source record: 88321

Didn't someone said that if you argue with idiot, you might look like one, or it is hard to tell who is?

Troll, trollll, trolllll

BUm

## 526. Re: BPL AOK!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-16 04:11:22 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <ur61n099brjqnagi6lh2c86ugdp77a5k2q@4ax.com>
Source record: 88420

On Fri, 15 Oct 2004 15:48:08 -0300, "Noname" <NobodyHome@Hotmail.com>
wrote:

>BPL sucks.

Hi OM,

It is worse than that. It is "science" by the mandate of government
definition. Worseï¿½ the definition is couched by the Republican Guard
in the economic terms of "business" which by the sheer inept example
of a flat-line Dow Average has been shown to be pure fantasy cloaked
as wisdom of the ages.

Philip Gold, a Neo-Con writer of some 800 articles, in his book
"Taking Back the Right" has characterized this administration's
abilities in managing ANY of these issues of policy as the work of
SUMOs (Screw Up - Move On).

The evidence of this Neanderthalic intelligence mounts every day, and
Worseï¿½ it conforms to a substantial Neanderthalic following that focus
on their portion of the public wealth being slopped into the trough
for their benefit.

73's
Richard Clark, KB7QHC
(1200 new registered voters in 3 days)

# 527. Re: Discone antenna & antenna tuner?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-16 05:20:07 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <62b1n0l6latk50nnmpducgi013h2g9auoi@4ax.com>
Source record: 88322

On 15 Oct 2004 15:23:31 -0700, abodo@netnitco.net (Amigaman) wrote:

>do I have to use an antenna
>tuner if I would, let's say, try to operate on 2/6 or 440?

Hi OM,

The need for a tuner, and the justification for the use of an antenna design are separate issues. A dummy load will always tune up....

As for this frequency spread, yes, the Discone could easily tune up on these frequencies, and every one in between. You also need to consider what will happen if you actually try to USE this antenna for a purpose other than a dummy load.

For one or two octaves it may operate very usefully, but when you try to stretch it over a decade of frequency you will find that its best performance is straight up for occasional satellite work.

When you get into the high end of the "specified" range, the overall dimension of antenna becomes end-fire straight up because it is becoming significantly long in terms of wavelength. If your interest is in activity along the horizon, then you would experience a sensation of being "deaf."

This deafness is the most common complaint of mis-interpreting the ability to tune with ability to use.

73's
Richard Clark, KB7QHC

## 528. Re: I am normally mild and polite...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-16 05:46:13 UTC
From: CW <"no adddress"@spam>
Message-ID: <DP-dnT1W9KI5KO3cRVn-og@comcast.com>
Source record: 88323

Fracky, you have been a regular troll on this group for years. That is why
you posted it and you know it.

"Fractenna" <fractenna@aol.com> wrote in message
news:20041015131613.01927.00001336@mb-m23.aol.com...
> Dear OM,
>
> I am sorry that you take personal offense; I will be happy to state why
this
> was posted:
>
> 1) it has been an ongoing topic on this NG for a long time, and now we
have
> final resolution;
> 2) I did not expect nor require anyone to respond, ergo the 'troll factor'
is
> not an issue;
> 3) The FCC has taken careful and measured steps to assure that US amateurs
> remain with the enjoyment of the HF bands, given the sharing of spectrum
with
> BPL.
> 4)It is the very best scenario for all involved. That is definitely worth
> gloating over.
>
> Wishing you the best,
>
> Chip N1IR

## 529. Re: I am normally mild and polite...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-16 05:48:12 UTC
From: Wes Stewart <n7ws_@_yahoo.com>
Message-ID: <kmc1n0pccaj0ofi3prfdrelud7dc6kc9ua@4ax.com>
Source record: 88324

On Fri, 15 Oct 2004 21:08:32 -0400, Mike Coslo <mcoslo@adelphia.net>
wrote:

[snip]

| A triumph of politics over technology.
|
Bingo!

## 530. Re: BPL AOK!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-16 06:08:58 UTC
From: Wes Stewart <n7ws_@_yahoo.com>
Message-ID: <ipd1n0h4lmfmgjn784jdsau1coc55kd0jd@4ax.com>
Source record: 88325

On Sat, 16 Oct 2004 04:11:22 GMT, Richard Clark <kb7qhc@comcast.net>
wrote:

|(1200 new registered voters in 3 days)

If these folks haven't bothered to register before and educate
themselves on the issues, why should they be voting?

As a BTW, the citizens of Arizona have the right to initiate law via
the ballot. (There are a couple of propositions on the ballot to take
away this right, politicians not wanting any meddling by the common
folk, doncha ya know.)

One of these initiative propositions would require a simple proof of
citizenship when you register and when you show up at the polls. The
usual suspects, i.e., the newspapers, the Hispanic "activists", my
gerrymandered-into-office Hispanic congressman, etc. are needless to
say suffering from severe panty bunching over this.

They claim that there has never been any instance of non-citizens, or
those ineligible, registering or voting.

The evening news just reported that 45 residents of the county
lock-up, felons all, were just registered to vote. Some of them
several times.

I guess that's good, huh?

## 531. Re: BPL AOK!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-16 06:15:36 UTC
From: John Franklin <jpfrank@peoplepc.com>
Message-ID: <c03cd.6238$SZ5.3131@newsread2.news.atl.earthlink.net>
Source record: 88326

"Fractenna" <fractenna@aol.com> wrote in message
news:20041015220535.11669.00001907@mb-m15.aol.com...
> >See ? There's the bit your not getting.
>>
>>I listen to SW. My neighbor signs-up for BPL. We share a pole-mounted
>>transformer. The AC in MY house, under my desk, will be infested with BPL.
>
> I confess I don't get it.
>
> SWLing may be fun, but is it necessary--in the sense that many and maybe
> most
> major foreign broadcasters already have web cast?
>
> Genuinely--please correct my lack of knowledge on this: what is the value
> of SW
> BCB in an era of web cast?
>
> 73,
> Chip N1IR

Perhaps He WANTS to listen to the short wave bands! Who really gives a crap about web cast, if he chooses to listen to the radio? I hate to break this to you, but the world does not revolve around the bloody internet!

-30-

## 532. Re: I am normally mild and polite...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-16 06:31:52 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0410152231.1823b3d8@posting.google.com>
Source record: 88327

fractenna@aol.com (Fractenna) wrote in message
news:<20041015185729.08241.00001978@mb-m10.aol.com>...
> >BPL is simply a poor technical solution, and is an interim communications
> >step that should be bypassed.

True. Very true.
>
> Why wait? People have things to say and see right now.

People need to cross the highway right now, but running in front of a
truck is not recommended.
>
> Ultimately, all telecom systems transition. BPL has the good fortune of having
> an infrastructure and a need right now; tomorrow; and for some time to come.

On a personal level, I need BPL like I need an enema.
>
> Seize the day!

Ok... the day is under arrest...Should I hold it for 72 hours?

>Solve a pressing problem.

BPL is a dumbass answer to a nonexistant problem.

>BPL looks very promising.

It would, to you....
Simply put....BPL, in it proposed configuration, sucks. Only
tweezerbrained people with a commercial or political agenda would
disagree. The idea of the HF spectrum becoming a digital noise
wasteland does not appeal to me. I bet the people over at Houston
Universal Radio will just love it. I can hear it now...Continental
1256 heavy, you are 1 by 1....You are buried in our BPL garbage bin.
Call San Juan Radio... Maybe they can hear you....Forget New York
Radio, they are in worse shape than we are. If no joy, just deviate to
Boston, descend to 2000 and stick your head out the window and yell
real, real, real, loud....Maybe that goofy ass Chip will hear you and
will relay your intentions back to us via his coveted BPL internet
connection....Then, again, maybe he won't...MK

## 533. Re: BPL AOK!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-16 06:36:45 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <lae1n0h48c78jaep2lpv9fjkfj3bsniu1p@4ax.com>
Source record: 88328

On Sat, 16 Oct 2004 04:11:22 GMT, Richard Clark <kb7qhc@comcast.net>
wrote:

>Worseï¿½ the definition is couched by the Republican Guard
>in the economic terms of "business" which by the sheer inept example
>of a flat-line Dow Average has been shown to be pure fantasy cloaked
>as wisdom of the ages.

Hello All,

One of the things you learn in a classic "liberal" education is that oftentimes reality mimics fiction (and even more frequently, much to the consternation of fiction writers, if you attempt to write actual events it comes out sounding wholly absurd). This has just occurred in conjunction with the purple prose offered above compared to the reports of recent events from the Insurance Industry Debacle:

"Shares of Marsh fell another 16 percent yesterday, to close at $29.20 after plunging on Thursday. In the last two days, the stock has fallen 37 percent, wiping out about $8 billion in market value."

The current ethic (or should I say the emulation of the Republican perversion of government for sale) has robbed the investor of $8 billion (should we privatize Social Security to add commissions and fees for this transaction?).

One time loss.... Will never be repeated..... Isolated event.... Hiccup in the statistics..... Market aberration.....

"Shares of A.I.G. also fell sharply a second day, closing down 3.6 percent, at $57.85, a loss of $24 billion in market value over the last two days."

If we do the math, more money has gone down the tubes in 2 days than will be spent in Iraq in 6 months. Who's the terrorist organization? Do we go after Ossama, or do the American thing supporting the Corporate welfare state and take out that trial lawyer Attorney General Spitzer?

73's
Richard Clark, KB7QHC

## 534. Re: balcony railing mount for DBS dish

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-16 08:57:14 UTC
From: kashe@sonic.net
Message-ID: <btn1n0ph536u2keoqpk7matkii7q2qqoie@4ax.com>
Source record: 88329
Cross-posted to: rec.radio.amateur.antenna,rec.video.satellite.dbs,rec.video.satellite.tvro,alt.dss.hack,alt.dbs.echostar.hack

```
On Fri, 15 Oct 2004 17:03:44 GMT, "Gary"
<satmaverick@REMOVEMEhotmail.com> wrote:

>
><kashe@sonic.net> wrote in message
>news:fs3vm0p69ij18vta3f4hq7mc0hge0aee2f@4ax.com...
>> On Thu, 14 Oct 2004 14:42:28 -0700, "Fat Bastard"
>> <a_fat_bastard-NOSPAM-@hotmail.com> wrote:
>>
>> >
>> >"Timothy Daniels" <TDaniels@NoSpamDot.com> wrote in message
>> >news:9padnYLFiaH01PPcRVn->
>> >>
>> As when using in terrorem clauses, designed to frighten
>> someone from taking legal action to recover loss. The classic example
>> is the signs some cleaners post saying that clothes left over X days
>> can be sold for charges and need not be sold for actual cash value.
>> The signs normally specify X days as far shorter than that specified
>> by law. If the cleaner actually sells the clothes before the legally
>> required time, he is liable for damages for the entire market value of
>> the clothes less the agreed-upon cleaning charge.
>>
>
>Like some stores where on the door it says they reserve the right to inspect
>packages, backpacks, purses etc brought into the store. Back in my legal
>relations class I learned that is against the law. They can say it all they
>want - they do not have that right. - In Canada anyway.

That can be a bit more difficult, at least in the US. The sign
would have to be very well placed, and even then it might not fly. An
exception would apply to membership stores where you agree in writing
that, as a condition of mambership, you agree to inspection (of cart
contents, anyway) upon exit. They've recently started posting large
signs saying it's for your *cough* protection *cough*, like to make
sure any applicable rebate information was printed on your receipt.

It's become pretty much of a game at an electronics chain
called Fry's, which everyone likes to mock. Some of their door guards
get pretty testy at times, though most know that they're not to push
it when a customer blows off their attempts to "inspect"

For some low grade entertainment, google frys + electronics.
The horror stories can be quite amusing.
```

## 535. Re: Pipe antenna mast

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-16 09:22:44 UTC
From: kashe@sonic.net
Message-ID: <13q1n0tejo3ha1lmk2c9p3ovuaaasglqv0@4ax.com>
Source record: 88330

On Fri, 15 Oct 2004 18:06:51 GMT, AB2RC <AB2RC@localhost.localdomain>
wrote:

>On 2004-10-15, Jimmie <Gfender@carolina.rr.com> wrote:
>> cant find it now. I hope I am just googling for the wrong thing. I first
>> learned about tit in an article on same in 73. Any info on this site or
>
>I don't think I learned anything about tit in 73, but it might have been in
>Playboy....

Might have been in 73 -- he was looking for information about
a mast. Mastos is the Greek word for breast.

## 536. Re: BPL AOK!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-16 09:25:19 UTC
From: fractenna@aol.com
Message-ID: <20041016052519.25923.00002398@mb-m03.aol.com>
Source record: 88331

>If you don't understand the ultimate utility of the HF spectrum then <rolls
>eyes>... SWL includes a whole world more than just broadcasting. Your
>ignorance, or at least a very poor assumption, is showing. And BCB...

Thanks for your opinion.

Firsty, I am not the FCC. This issue was duly considered and carefully thought through, so please don't use me as a proxy: they know more about the SW BCB than me.

Second, I asked you to educate me: not because I'm clueless, but because I wanted to give you the benefit of perhaps mentioning an aspect of this, that is (allegedly) beyond the extant solutions and prescribed remedies of Part 15.

If you think its worthwhile then its worthwhile to you: I'm glad you enjoy it. The issues are:1) what is preventing you from getting the info in the multitude of ways available; 2) what steps have you taken to mitigate the interference (if it exists); 3) can you cite cases where --bona fide- broadcasts to North America were uncopyable from all locations (with extant filtering methods) of a residence because of BPL ?

As for non- BC SWL'ing, may we presume that the intended transmissions were not made for your information nor benefit? If so, then how is one to presume that eavesdropping from a residence as a form of entertainment needs to be assured under all times and conditions?

It would be unfortunate to presume this is my argument: remedies have already been prescribed due to these arguments being prevuiously made to the FCC. So, why aren't they sufficient?

Please: some substance. Let's learn together--no malice intended nor sought.

73,
Chip N1IR

## 537. Re: BPL AOK!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-16 09:27:34 UTC
From: fractenna@aol.com
Message-ID: <20041016052734.25923.00002399@mb-m03.aol.com>
Source record: 88332

> Perhaps He WANTS to listen to the short wave bands! Who really gives a
>crap about web cast, if he chooses to listen to the radio? I hate to break
>this to you, but the world does not revolve around the bloody internet!
>

Hi Hoe,

Please read my response (on another post), which poses some important questions to him.

73,
Chip N1IR

## 538. Re: BPL AOK!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-16 09:30:33 UTC
From: fractenna@aol.com
Message-ID: <20041016053033.25923.00002400@mb-m03.aol.com>
Source record: 88333

>Hi Hoe,

Fat fingers Joe; apologies.

Replace as "Hi Joe,"

73,
Chip N1IR

## 539. Re: Why do WiFi basestations use two antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-16 10:37:22 UTC
From: "Jock." <real_class_a@yahoo.co.uk>
Message-ID: <ebu1n09g4m8otaum546qflqt8flunh9mfh@4ax.com>
Source record: 88334
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,uk.radio.amateur,uk.tech.broadcast

On Fri, 15 Oct 2004 18:08:52 -0700, "Ed Price" <edprice@cox.net> wrote:

>Then you agree that the French did learn something from their disaster in
>Indochina.

Not as much as your disaster in Indo-China. At least they learned.

>Nothing I say will change your pickled attitude, so I'll grant you the
>high-ground of a last idiotic reply.

No it won't. Now piss off!

--

Jock.

It's the Afghan National Army that went into Najaf
and did the work there.

George W. Bush

## 540. Re: BPL AOK!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-16 11:48:29 UTC
From: kelly@dvol.com
Message-ID: <d22b54c3.0410160348.4b174d40@posting.google.com>
Source record: 88335

fractenna@aol.com (Fractenna) wrote in message
news:<20041015182659.22466.00000890@mb-m06.aol.com>...
> >Actually calling it an extant infrastructure is a gross oversimplification.
>
> I beg to differ. I used the word properly.
>
> >They have to add signal boosters every couple of miles plus bypasses to
> >every transformer. Where the lines are in the average condition for this
> >country (which equates to poor condition), they will have to upgrade the
> >lines themselves. Where there is noise on the lines, say due to industry
> >(welders for example really put a lot of noise across them), they'll have to
> >track it down and filter it out. Dry areas have a lot of static and they
> >may have to shield the lines for reliable data transfer. The plains states
> >have a lot of thunderstorms and once again they may have to shield the lines
> >to have reliable performance.
> >
>
> Minor logistical issues; part of doing business.
>
> >There's a lot of expense in implementing this and a lot of time consuming
> >work.
>
> Incremental.
>
> The rural areas will never get it as there simply aren't enough
> >customers per mile to break even. Besides by the time they get the rural
> >areas covered, if they ever do, these people will have gone to satellite or
> >WI-FI and there won't be a market.
> >
>
> Speculation; asserted but not shown.
>
> >> BPL will be one of many options many folks will have, and in many cases it
> will
> >> be the only and/or best one. That is why it will be successful in the
> United
> >> States.
> >>
> >
> >Not true. Small towns and larger already have dial up and many have DSL and
> >cable access. Some already have WI-FI and satellite. People outside of the
> >towns will NOT be served regardless of the marketing hype due to cost.
> >Customers per mile won't justify it.
>

> Obviously there will be market locations where the business case is compelling;
> others where it will be not. Are you saying that they haven't done the business
> case? I don't see evidence that your assertions come from such analyses.
>
> The important point is that ham radio is not a factor in the business case, in
> my opinion. Ham radio: 'we did you already, didn't we?' Why should we belabor a
> point already dealt with, and deal with in great sensitivity and fairness?.
>
>
> >> Other options are bound to capture relevant market share as well. It's a
> big
> >> country and a huge market, easily amenable to several tech paths Everyone
> >> wins! What a deal!
> >>
> >
> >For BPL to capture and KEEP market share, it's going to have to be as cheap
> >as dial up and as fast and reliable as cable or DSL. Otherwise it may get
> >implemented in spots but is doomed to basically wither and die on the vine.
> >
>
> Yes, I agree. Except the 'doomed' case sounds like 20 sigma, to me.
>
> >> That is why BPL is supported by both Presidential candidates. One of the
> few
> >> points both these gentlemen agree on.:-)
> >>
> >
> >No they support it because of the marketing hype that has been done and the
> >fact that neither is really conversant with the technology.
>
> That is SO wrong. Senator Kerry--I know as a fact--is VERY cognizant in telecom
> matters, which include BPL. His staff is superb. I cannot speak from experience
> regarding President Bush, although I like what I hear.
>
> After all they
> >few it as having an infrastructure in place, which is in fact not true.
>
> Sure it is. Infrastructure is not the same as implementation.

Nathan you silly thing she's 99% on the money. And you know it.

Remember the daze around here when you ran your brag tapes about how
well you did in some 10M contest or another with one of your fractal
quads and the JRC xcvr back then? I do. Now lay BPL over the 10M band
and try it again.

Whatever it takes to stir up a pissin' contest eh . . ?

> >
> >Dee D. Flint, N8UZE
> >

>
> 73,
> Chip N1IR

Love as usual,

Brian w3rv

## 541. Re: BPL AOK!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-16 12:01:08 UTC
From: fractenna@aol.com
Message-ID: <20041016080108.22732.00002129@mb-m15.aol.com>
Source record: 88336

>Love as usual,
>
>Brian w3rv

Hi Brian,

I imagine that when 10M comes back, I will be fascinated to do so. I still have the JRC and use it for MF antenna testing on occassion.

I do hope that, when this occurs, we in the ham 'fraternity' (a horrible sexist misnomer IMO) will have finally switched to voice-digital modes on HF and away from SSB . Such digital modes are far less sensitive to supposed 'interference'. About time we were 'with it' and don't let the totality of the wireless/telecom revolution pass us by..

73,
Chip N1IR

## 542. Re: EH-antenna: sensation or fraude?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-16 13:00:00 UTC
From: bozidar.pasaric@ri.htnet.hr
Message-ID: <1glr20d.12q1l075144w0N%bozidar.pasaric@ri.htnet.hr>
Source record: 88337

Roy Lewallen <w7el@eznec.com> wrote:

> Hate to break the news, Walt, but it happens very, very often. Even years
> ago, when I was doing some consulting work on a patent case and read a
> couple of hundred antenna patents, there was a great deal of pseudo- and
> voodoo-science in issued patents. These days, it's rampant.
>
> My favorite example is US patent #6,025,810, "Hyper-Light-Speed Antenna",
> but I'm sure even this is far from the most egregious.
>
> Roy Lewallen, W7EL
>
> Walter Maxwell wrote: > > I f there really is an issued patent on the EH
> antenna, the paragraph above is > proof that the Patent Office examiner
> who approved the patent application for > issuance was completely snowed
> by the applicant's patent attorney who wrote the > application. > > This
> doesn't happen too often, but it does happen. Unless the patent examiner
> is > extremely well versed in electromagnetic theory he could easily be
> persuaded > that the EH principle is valid, while it is not. > > Walt
> Maxwell, W2DU

Firstly, sorry for the 'e' in 'fraud' which does not belong there. In fact, I asked for help from the hams' fraternity ('all the people know all' ) - and in connection with the US PTO patent No. 6,486,846 B1, issued on November 26, 2002 to Robert T. Hart. I live on the fifth floor of a condominium building, and like many hams, I have no space on the roof for a proper antenna. So, an EH-antenna would be ideal - if it worked. I have not tried to build it yet, but I am trying to learn about it as much as possible before that.

Obviously, my question has two aspects: a practical and a theoretical one. The practical one: "The proof of a pie is in eating it." Has anyone built it and can testify it is successful at least as much as a standard dipole - according to the inventor's statements? I have not found such an answer yet.

The theoretical one: My theoretical education in that field is rather amateurish, but still I think I can put some questions: On the EH-antenna homepage (http://EH-antenna.com) I found a statement that in the classical dipole the E and the H fields are a result of a LINEAR movement of electric charges, while those fields in the EH-antenna are a result of the ROTATION of those charges - a feature unknown until now. Nowhere in textbooks could I find any word about this possible phenomenon. In science discoveries must be double confirmed at least, but here this is not the case.

By the way, it was interesting to read that once an issued US Patent was a guarantee that the patent at least worked, but today it seems it is only a certificate that someone was the first to register his idea or wouldbe invention. If so, I could even understand that, because today the USPTO should have armies of different experts and endless laboratories to test all the applications. However, it would be fair to openly proclaim such a principle. In my country (Croatia) the situation is similar. (The other day I read in the newspapers that someone got a patent for superconductivity at normal temperatures (through some alloys), although, to my knowledge, nobody saw it work.) Imagine a coil without ohmic resistance, or long distance lines without any losses!

I am still dreaming about an ideal antenna having not more than 10% of wavelength and 100% efficiency. Thanks for all the posts, anyhow.

Bozidar, 9a2hl

## 543. Re: EH-antenna: sensation or fraude?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-16 13:07:25 UTC
From: fractenna@aol.com
Message-ID: <20041016090725.29543.00000915@mb-m05.aol.com>
Source record: 88338

>I am still dreaming about an ideal antenna having not more than 10% of
>wavelength and 100% efficiency. Thanks for all the posts, anyhow.
>
>Bozidar, 9a2

Moderate/high efficiency with a 10% physical height is pretty easy to attain.
That's not an e/h antenna, as far as I am aware.

The e/h antenna appears to ignore the main point about Maxwell's equations:
changing fields generate changing fields. E' make B's and so on. You can't
separate a changing E field from its B field, and so on. Thus the premise is
wrong.

In a --very-- small volume (fraction of a radiansphere), any single current max
radiator is very inefficient. Similarly, any multiple current max radiator does
not exhibit constructive interference in the far field. That's the physics.
Antennas as a pure science are now an exhausted field.

73,
Chip N1IR

## 544. Re: Discone antenna & antenna tuner?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-16 13:13:50 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <pr6dnaMm8aHwg-zcRVn-2g@comcast.com>
Source record: 88339

"Mispan" <nospam@hotmail.com> wrote in message
news:2tbkk3F1uiun8U1@uni-berlin.de...
>
> "Fractenna" <fractenna@aol.com> wrote in message
> news:20041015182935.22466.00000891@mb-m06.aol.com...
>> >Greetings all!..I've got one of them discone antennas, you know, like
>> >28-500mhz, blah..blah...on the roof...do I have to use an antenna
>> >tuner if I would, let's say, try to operate on 2/6 or 440?... I don't
>> >want to damage my UHF xcvr if there is a high SWR...any info from
>> >you experts or who done did that is greatly appreciated...You all,
>> >have a nice weekend & 73's....tony...wa9yoz...Amiga computer user
>> >going over 12 years now.. Ciao!
>>
>> Hi Tony,
>>
>> The true discone part only works above about 100 MHz. Occassionally these
>> hybrid antennas have spikes of SWR from 100 MHz to 440, but I would say
> you
>> should probably be fine--without tuner.
>>
>> 73,
>> Chip N1IR
>
> Discone lower frequency cutoff is near the length of the skirt (1/4
> wavelength) so measure it 100 Mhz is about 2.5 feet, 28 would be 9 foot.
> Impeadance is great over the range, should not need tuner, unless the
> discone is built cheap. I have a Mil one, good from near 200 to about 1.2
> Ghz high power. It has 12 rods that make up the skirt. Google it to
> check.
> UHF should be great.
>
My understanding is that there is also a problem at the other frequency end.
For example, if it actually works on 6 meters, then, at 432 MHz you will
have very high angle radiation; i.e. going up, instead of along the horizon.

Tam/WB2TT

## 545. Re: Discone antenna & antenna tuner?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-16 13:16:16 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <sqidnSWYffFig-zcRVn-sA@comcast.com>
Source record: 88340

Richard,
Sorry I stepped on you. Hadn't read your posting.

Tam/WB2TT

## 546. Re: balcony railing mount for DBS dish

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-16 13:31:19 UTC
From: Jack Painter <223bthp@cox.net>
Message-ID: <Jo9cd.56654$Lo6.36945@fed1read03>
Source record: 88341

"Magus" <Magus@nope.com> wrote
> "Democracy: A government of the masses, authority derived through mass
> meetings or any other form of direct expression; results in mobocracy;
> attitude toward property is communistic negating property rights; attitude
> toward law is that the will of the majority shall regulate whether it is
> based upon deliberation or governed by passion, prejudice, and impulse,
> without restraint or regard to consequences; its result is dem-o-gogism,
> license, agitation, discontent and anarchy."
>
>
> Democracy = communistic attitude toward property negating property rights.
>

This is what "Freedumb loving people" want!

Lost, is the notion that a constitutional republic once offered the greatest protection of individual and property rights while encouraging economic growth under free enterprise. We appear destined to follow the Ur-a-Peon model of high-density housing voters electing our rulers. Subjects v. citizens, for the common good, isn't that sweet. We can gather in our collective-gardens and listen to National Public Radio whilst our selected rulers redistibute the last "earned" wealth remaining...to themselves. Before that time Idaho will have closed its borders.

Jack

## 547. Re: BPL AOK!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-16 13:51:51 UTC
From: No Name <NoName@HotMail.com>
Message-ID: <ZH9cd.2716$Vu6.17645718@news.sisna.com>
Source record: 88342

"Fractenna"
> Thanks for your opinion.
> As for non- BC SWL'ing, may we presume
> that the intended transmissions were not
> made for your information nor benefit? If so,
> then how is one to presume that eavesdropping
> from a residence as a form of entertainment...

You're one of those brainwashed, Orwellian-fans.

You're living down to your well-established reputation as an idiot.

It is apparent that you'll not be convinced, so it is a waste of perfectly good bits to argue further.

Oh, you ask me to cite references, I did.

You big fat jerk.

# 548. Re: BPL AOK!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-16 14:17:49 UTC
From: fractenna@aol.com
Message-ID: <20041016101749.25764.00002332@mb-m07.aol.com>
Source record: 88343

>"Fractenna"
>> Thanks for your opinion.
>> As for non- BC SWL'ing, may we presume
>> that the intended transmissions were not
>> made for your information nor benefit? If so,
>> then how is one to presume that eavesdropping
>> from a residence as a form of entertainment...
>
>You're one of those brainwashed, Orwellian-fans.
>
>You're living down to your well-established reputation as an idiot.
>
>It is apparent that you'll not be convinced, so it is a waste of perfectly
>good bits to argue further.
>
>Oh, you ask me to cite references, I did.
>
>You big fat jerk.

My dear friend,

This is not a personal issue; I have faith that you can transcend your tone here and say something that could be helpful in making your point compelling.

If the point is compelling, then it certainly would make your case , which would undoubtedly be carefully echoed in the BPL issue.

Emotional gut reactions and name calling aren't the way to convince those who make the decisions.

I tried; I am sorry I cannot help you unless you help yourself.

Best wishes,
Chip N1IR

## 549. Re: Discone antenna & antenna tuner?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-16 14:20:26 UTC
From: fractenna@aol.com
Message-ID: <20041016102026.25764.00002333@mb-m07.aol.com>
Source record: 88344

>My understanding is that there is also a problem at the other frequency end.
>For example, if it actually works on 6 meters, then, at 432 MHz you will
>have very high angle radiation; i.e. going up, instead of along the horizon.
>
>Tam/WB2TT

Hi Tam,

If its the design I've worked with, it should be OK on the horizon on 432.

When the disc section no longer functions as a counterpoise, then multiple resonances happen across the cone and you get a lobe on the horizon. That is probably what you are describing.

73,
Chip N1IR

## 550. Re: I am normally mild and polite... ATTN: Old Ed, OE6 killfile info

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-16 14:45:00 UTC
From: - XC - <nobody@home.net>
Message-ID: <gfqdnc9KB4pyruzcRVn-oA@comcast.com>
Source record: 88345

Hi Old Ed, it's pretty easy, just did it myself, you just need to setup a message rule.....

-Go to menu Tools/Message Rules/News
-On the New News Rule checkoff in the following boxes to setup a new rule:
-1) Where the From line contains people
-2) Delete it
-3) click the Contains People link

-type in the name of the offending sender, then Add, then OK
-couple more OK's to close all the windows and put the settings into effect
(you can repeat the above to add more names too)

Have fun, you can add, modify, delete as many rules as you like.
The next time you access the group you will not see any *new* posts from that person.

73,
John

"Old Ed" <eXseniorsDeleteThisAndTheX@earthlink.net> wrote in message news:2ISbd.3883$6k2.2949@newsread3.news.pas.earthlink.net...
> But for someone who comes on an amateur radio forum to gloat over
> the probable destruction of the HF radio spectrum, I'll make an exception.
>
> Will someone please tell me how to "killfile" this F***ING STUPID
> TROLL? I haven't quite figured out how to do it in OE6. (That will
> also save me from feeding this Troll, which I'm afraid I just did.)
>

## 551. Re: balcony railing mount for DBS dish

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-16 14:51:23 UTC
From: CW <"no adddress"@spam>
Message-ID: <8cWdnQe3hoj3qOzcRVn-rg@comcast.com>
Source record: 88346
Cross-posted to: rec.radio.amateur.antenna,rec.video.satellite.dbs,rec.video.satellite.tvro,alt.dss.hack,alt.dbs.echostar.hack

<kashe@sonic.net> wrote in message
news:btn1n0ph536u2keoqpk7matkii7q2qqoie@4ax.com...
> On Fri, 15 Oct 2004 17:03:44 GMT, "Gary"
> <satmaverick@REMOVEMEhotmail.com> wrote:
> It's become pretty much of a game at an electronics chain
> called Fry's, which everyone likes to mock. Some of their door guards
> get pretty testy at times, though most know that they're not to push
> it when a customer blows off their attempts to "inspect"
>
> For some low grade entertainment, google frys + electronics.
> The horror stories can be quite amusing.
>
Good to know that our Fry's is not unique.

## 552. Re: BPL AOK!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-16 15:00:14 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <SHacd.40892$kz3.2073@fed1read02>
Source record: 88347

"Fractenna" <fractenna@aol.com> wrote in message
news:20041016052519.25923.00002398@mb-m03.aol.com...
> >If you don't understand the ultimate utility of the HF spectrum then
> ><rolls
>>eyes>... SWL includes a whole world more than just broadcasting. Your
>>ignorance, or at least a very poor assumption, is showing. And BCB...
>
> Thanks for your opinion.
>
> Firsty, I am not the FCC. This issue was duly considered and carefully
> thought
> through, so please don't use me as a proxy: they know more about the SW
> BCB
> than me.
>
> Second, I asked you to educate me: not because I'm clueless, but because I
> wanted to give you the benefit of perhaps mentioning an aspect of this,
> that is
> (allegedly) beyond the extant solutions and prescribed remedies of Part
> 15.

Because the "extant solutions" will not work in the real world.

Why, we could save a lot of money and trouble if the product emission requirements of Part 15 were eliminated. Then, the general population could deal with interference problems on a "case-by-case" basis; if you were experiencing an interference problem, all you would have to do is locate the source and invoke the general "shall not cause degradation to licensed services" clause, and the offending source would be quickly technically fixed or permanently shut down.

Anybody who thinks this is practical must have a mental age of about 7 (and pardon me if I'm insulting 7-year-olds).

Ed
wb6wsn

## 553. Re: BPL AOK!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-16 15:02:16 UTC
From: sideband <AINO8SPAMW@cac.net>
Message-ID: <YJacd.9943$Rf1.4903@newssvr19.news.prodigy.com>
Source record: 88349

Hrm...

Anyone else see the callsign in my post? Fracky here doesn't see it.
(It's blatantly obvious if you know where to look.)

Yes, I drive truck, by choice. I own two of them, as a matter of fact.
I paid taxes on over $150K last year. I'm a successful independent
business man. How'd you do last year?

Prior to that, I was a regional tech support manager for Bay Networks.
I was making a 6-figure salary there, too. Got burned out and decided
to do something a bit less stressful. It works for me.

Prior to that I taught electronics at a trade school in Salt Lake
City, UT.

Prior to that I was enlisted in the USMC, where I was a networking
technician, small computer systems technician, and was stationed with
1st MarDiv G-6 on mainside, MCB Camp Pendelton, and 11th Marines on
Las Pulgas, Camp Pendelton.

Who's your friend, anyway? Doug, N8WWM? George, WA3MOJ? Known trolls
in rec.radio.cb.

CB is required for my job, so there's that. I also have HF and VHF
gear in the truck, and am licensed to use it all.

Since when is someone's choice of employment indicative of their
intelligence or abilities in other fields? Look up the definition of
Amateur in the dictionary, Fracky.

As for your implied insult, sugar-coated as it was, it didn't hit
home. Try again, Trollboi.

And if you'd ever care to supply that performance data that I asked
for oh, so many years ago, I'd still be interested in seeing it. I'd
like gain figures, and directivity figures of your 10M fractal against
a balun fed 10M dipole oriented in the same direction at the same
height above ground, on the same frequency.

-SSB

Fractenna wrote:

>>>1. I ID every time I post. If you can't figure it out, it goes to show
>
>
> A friend says you are a truckdriver in Michigan. Is this true? If so, it is

> important to know your perspective given your comments.
>
> Mind you, truckdriving is a noble and important job--but says nothing about a
> knowledge base on antenna technologies; BPL; and so on.
>
> Oh well, nice to beep ya!
>
> 10-4 there good buddy!
>
> Chip N1IR

## 554. Re: BPL AOK!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-16 15:03:16 UTC
From: fractenna@aol.com
Message-ID: <20041016110316.22466.00000914@mb-m06.aol.com>
Source record: 88348

>Why, we could save a lot of money and trouble if the product emission
>requirements of Part 15 were eliminated.
>
>Anybody who thinks this is practical must have a mental age of about 7 (and
>pardon me if I'm insulting 7-year-olds).
>
>
>Ed
>wb6wsn
>

Surely no one is suggesting this, Ed.

73,
Chip N1IR
>
>
>
>
>

## 555. Re: Another lie...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-16 15:04:19 UTC
From: richardharrison@webtv.net
Message-ID: <25255-41713873-619@storefull-3258.bay.webtv.net>
Source record: 88353

Tom Donaly, KA6RUH wrote:
"Richard, there is no such thing as a "current drop."

This is where i came in almost a year ago. Yuri may havr posted Fig 9-22 from page 9-15 of the 1994 edition of ON4UN`s "Low-Band DXing". There are base loading, center loading, and continuous loading examples of short vertical antennas, and their current distributions. In every case, the currents at the two ends of the coil are different.

The impedance of an antenna is a function of position along the antenna. There is radiation from an antenna so not only is the impedance along an antenna a variable, but the the transmit power level power level along an antenna is a variable, too. These variables ensure a difference between the current into and out of a loading coil.

Current is high where impedance is low, and current is high where power is high.

Best regards, Richard Harrison, KB5WZI

## 556. Re: BPL AOK!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-16 15:09:37 UTC
From: sideband <AINO8SPAMW@cac.net>
Message-ID: <RQacd.9947$Rf1.1537@newssvr19.news.prodigy.com>
Source record: 88350

Let's pick this one apart....

Fractenna wrote:

>>1. I ID every time I post. If you can't figure it out, it goes to show
>>your lack of attention to detail.
>
>
> Hmmm...here's what I believe to be relevant; this knowledge may be incomplete
> or wrong. Kindly correct? Apologies if wrong. No slight meant in any way. Still
> don't know your proper callsign..assuming you have one.
>
> You're named Chris.
>
That's correct
> You operate out of Michigan. Livingston.You live in the next town over
> (Howell).
>
Yep.
> Most of the time you drive big rigs down the southern corridor into Nashville
> and beyond.
>
That information is a few years old. I run a regional route from
Illinois over to Mass, down to VA.
> You stop and eat often in E-Town Kentucky and don't like Po-Folks restaurant.
> You eat at Cracker Barrel, but they all look the same...same fare.
>
I have nothing against Po-Folks. I only rarely stopped in E-Town. I
like Cracker Barrel, but much prefer Outback or Chilis. Hard to get a
big-rig into either of those during business hours, so I usually eat
at the truckstops. Nope. Wrong there.
> Divorced? Two kids?
>
Divorced. No kids.
> Me-a-n fisherman. Fish fear you. Prefer big mouth bass.
>
Nope. Catfish and Trout. No time for it since I started my new
business, though. That's one of the things I miss.
> Sounds cool! Let me know the next time you're out fishin in KY!
>
That's not going to happen any time soon. No time, and no desire to
get within 100 yards of you. At least not until you can show you're
man enough to provide the data I requested on your fractal antennae.
Even then, I'm not sure I want that much to do with you.

> 73,
> Chip N1IR

Oh, and I am licensed. In fact I went from 22 years on just CB to Extra in 6 months, without having to study anything except the Code. I'm dyslexic, so I had quite the time with that. Took me three tries to pass the code, but I did it, without a waiver.

So just take the "you're not smart enough to have an intelligent conversation about antennas" attitude and point it elsewhere.

-SSB

# 557. Re: BPL AOK!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-16 15:12:05 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <2jd2n012er45pipqvfl89jbtll8738pagm@4ax.com>
Source record: 88351

On Fri, 15 Oct 2004 23:08:58 -0700, Wes Stewart <n7ws_@_yahoo.com>
wrote:

>If these folks haven't bothered to register before and educate
>themselves on the issues, why should they be voting?

Hi Wes,

The HAVE. The problem is we've had a spate of "volunteer" groups
who've pre-screened some registrants and those forms NEVER making it
into the office. Another problem is that we have had a FLOOD of new
registrants this summer (100,000+) in this county, and that has choked
the system such that when they go to check their status, their form
may have not cleared the bottleneck, and the office suggests if there
is any doubt they should apply again. At our first stop, quite a few
have been Troops and the families of Troops and I suppose they've been
too busy out of country (or on their way) to read the paper. The
problem of getting Absentee Ballots has been widely reported in the
Army Times (they had offered solutions last summer, Congress has had
problems fulfilling those solutions for some reason).

To All,

Anyway, it is now national law that any registered voter must be given
a ballot even if their name does not appear on the Voter's Roll.

If any of you is denied a ballot because they claim you do not appear
on the Roll, they cannot deny you a "Provisional Ballot" (this name
may vary by state). If they stonewall you claiming they "never" heard
of such a thing, then you simply go to another Polling Station and
make the same demand (you do not have to be at "your" Polling Station
to vote this way). If your state varies from this significantly, then
you should move out of Florida. When you vote "Provisional Ballot" be
prepared to have it placed into a security envelope, where you will
provide your name, signature, place of residence such that when your
name does appear on the Roll that it can be reconciled and the vote
tallied.

73's
Richard Clark, KB7QHC

## 558. Re: BPL AOK!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-16 15:13:08 UTC
From: sideband <AINO8SPAMW@cac.net>
Message-ID: <8Uacd.9949$Rf1.9940@newssvr19.news.prodigy.com>
Source record: 88352

Fractenna wrote:
> Genuinely--please correct my lack of knowledge on this: what is the value of SW
> BCB in an era of web cast?
>
> 73,
> Chip N1IR
>

In a wartime situation, the internet may, and probably will, be down.
The knowledge and expertise of people who can both receive and
transmit on HF will be invaluable in such situations.

If BPL is trashing the bands, it will make it that much more difficult
to receive HF broadcasts, and HF Amateur transmissions, which will
tend to get people away from HF. They won't want to put up with the
interference. Bad idea.

-SSB

# 559. Re: BPL AOK!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-16 15:15:36 UTC
From: fractenna@aol.com
Message-ID: <20041016111536.22449.00000981@mb-m06.aol.com>
Source record: 88354

> I'd
>like gain figures, and directivity figures of your 10M fractal against
>a balun fed 10M dipole oriented in the same direction at the same
>height above ground,...

Two element 10M FQY= 4dBd compared to such a dipole; F/B about 20 dB at that gain. Last version had bandwidth of 1.5 MHz for 2:1 SWR.

You can see a professional 3 el version for a higher frequency on the slideshow gif on www.fractenna.com.

From what I've seen, about 50 science fairs have had these quads over the years. Always happy to help those who are polite and have legitimate interests, such as students.

Chris, when someone pays you a compliment, don't take it as an insult to your intelligence. Truck driving is AOK with me; I have relatives out your way who drive trucks.

So, when are we goin' fishin'?

73,
Chip N1IR

## 560. Re: BPL AOK!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-16 15:16:42 UTC
From: fractenna@aol.com
Message-ID: <20041016111642.22449.00000982@mb-m06.aol.com>
Source record: 88355

>Who's your friend, anyway? Doug, N8WWM? George, WA3MOJ? Known trolls
>in rec.radio.cb.

Don't know who these folks are.

73,
Chip N1IR

## 561. Re: BPL AOK!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-16 15:20:43 UTC
From: fractenna@aol.com
Message-ID: <20041016112043.22449.00000983@mb-m06.aol.com>
Source record: 88356

>If BPL is trashing the bands, it will make it that much more difficult
>to receive HF broadcasts, and HF Amateur transmissions, which will
>tend to get people away from HF. They won't want to put up with the
>interference. Bad idea.
>
>-SSB

How can you be on CB and say that no one puts up with interference? Also, the actual number of hams affected is probably very small, so the point is interesting but probably better posed in the context of :"if we don't get novices again, with no code privileges, then..."

73,
Chip N1IR.

## 562. Re: BPL AOK!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-16 15:21:20 UTC
From: sideband <AINO8SPAMW@cac.net>
Message-ID: <Q%acd.9951$Rf1.9210@newssvr19.news.prodigy.com>
Source record: 88357

Buuuut you still don't answer the question... Didn't think you would,
but had to ask anyway.

-SSB

Fractenna wrote:

>>Who's your friend, anyway? Doug, N8WWM? George, WA3MOJ? Known trolls
>>in rec.radio.cb.
>
>
> Don't know who these folks are.
>
> 73,
> Chip N1IR

## 563. Re: BPL AOK!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-16 15:26:40 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <E4bcd.40895$kz3.39616@fed1read02>
Source record: 88358

"Fractenna" <fractenna@aol.com> wrote in message
news:20041016052519.25923.00002398@mb-m03.aol.com...
> >If you don't understand the ultimate utility of the HF spectrum then
> ><rolls
>>eyes>... SWL includes a whole world more than just broadcasting. Your
>>ignorance, or at least a very poor assumption, is showing. And BCB...
>
> Thanks for your opinion.
>
> Firsty, I am not the FCC. This issue was duly considered and carefully
> thought
> through, so please don't use me as a proxy: they know more about the SW
> BCB
> than me.

With the caveat that I think the FCC is about the most open example of our Federal government, I have to point out that "due consideration" is a real hoot. Oh sure, issues move along in their majestic dance through the FCC's bureaucracy, but, after all the technical discussion has been input, there's a big, heavy political thumb on the scales of justice. Every FCC Commissioner is a political appointee, and they are all professional administrators, without a trace of experience in electromagnetics or communications theory. Each Commissioner has his own philosophy that he tries to bend the FCC toward, with top-down influence and an eye toward his next career step. To think that hot-button political issues (internet access for everyone) and special interests (what politician doesn't need money, if only to periodically fund his re-election) don't guide the technical issues is to be willfully naive.

Shocking as this may be, Fractenna (and my dog) just might know more about some aspects of electromagnetics than one or more of the FCC Commissioners. OTOH, FCC Commissioners have more friends, dress better, get more sex, and are far more wealthy and articulate than either.

Ed
wb6wsn

## 564. Re: BPL AOK!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-16 15:32:19 UTC
From: sideband <AINO8SPAMW@cac.net>
Message-ID: <7abcd.9953$Rf1.9601@newssvr19.news.prodigy.com>
Source record: 88359

Ouch. Even I wasn't going to be THAT succinct..

-SSB

Ed Price wrote:

> With the caveat that I think the FCC is about the most open example of
> our Federal government, I have to point out that "due consideration" is
> a real hoot. Oh sure, issues move along in their majestic dance through
> the FCC's bureaucracy, but, after all the technical discussion has been
> input, there's a big, heavy political thumb on the scales of justice.
> Every FCC Commissioner is a political appointee, and they are all
> professional administrators, without a trace of experience in
> electromagnetics or communications theory. Each Commissioner has his own
> philosophy that he tries to bend the FCC toward, with top-down influence
> and an eye toward his next career step. To think that hot-button
> political issues (internet access for everyone) and special interests
> (what politician doesn't need money, if only to periodically fund his
> re-election) don't guide the technical issues is to be willfully naive.
>
> Shocking as this may be, Fractenna (and my dog) just might know more
> about some aspects of electromagnetics than one or more of the FCC
> Commissioners. OTOH, FCC Commissioners have more friends, dress better,
> get more sex, and are far more wealthy and articulate than either.
>
>
> Ed
> wb6wsn
>

## 565. Re: BPL AOK!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-16 15:33:30 UTC
From: fractenna@aol.com
Message-ID: <20041016113330.22449.00000984@mb-m06.aol.com>
Source record: 88360

>FCC Commissioners have more friends, dress better,...
>are far more wealthy and articulate than either.
>
>
>Ed
>wb6wsn

Mr. Powell is one bright guy, IMO. He, an attorney, has dozens of engineers and scientists at his call, some of the very best in the country one may presume. He has great respect for radio amateurs and our issues, also my opinion.

You are right that he dresses better than me, at least for daily fare.

I think he knows what he's doing.

73,
Chip N1IR

## 566. Re: BPL AOK!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-16 15:35:22 UTC
From: fractenna@aol.com
Message-ID: <20041016113522.22449.00000985@mb-m06.aol.com>
Source record: 88361

>>>Who's your friend, anyway? Doug, N8WWM? George, WA3MOJ? Known trolls
>>>in rec.radio.cb.
>>
>>
>> Don't know who these folks are.
>>
>> 73,
>> Chip N1IR

It's not someone you know. It's someone I know. That's your answer. Don't be paranoid:-).

73,
Chip N1IR

## 567. Re: BPL NOT AOK! (with me)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-16 15:46:13 UTC
From: sideband <AINO8SPAMW@cac.net>
Message-ID: <9nbcd.9957$Rf1.5712@newssvr19.news.prodigy.com>
Source record: 88362

Fractenna wrote:

>>If BPL is trashing the bands, it will make it that much more difficult
>>to receive HF broadcasts, and HF Amateur transmissions, which will
>>tend to get people away from HF. They won't want to put up with the
>>interference. Bad idea.
>>
>>-SSB
>
>
> How can you be on CB and say that no one puts up with interference? Also, the
> actual number of hams affected is probably very small, so the point is
> interesting but probably better posed in the context of :"if we don't get
> novices again, with no code privileges, then..."
>
> 73,
> Chip N1IR.

CB is intended for short range communications, under 120 miles. Rarely will a legal station be able to transmit much more than 20 miles, when the hash and trash aren't throwing their deadkeys and noise toys. Completely different subject.

Chip, you probably haven't been out driving around in the areas they were testing BPL, while trying to work a net. You can hear, literally, the "motorboating" from BPL interference 40-50 miles away from a test area. By the time you're within 10 miles of a test area, the noise from the BPL (different from magnesium lights and other urban noise sources) is close to 20db over S9.. making working the net nigh-on impossible. We're talking, minimum, a 100 mile radius around a BPL test site where the interference from BPL makes Amateur HF communications, at a minimum, extremely difficult, and at worst, impossible.

Now, mind you, this is receiving from a "compromise" antenna. I've tried switching types from my 40-foot, ICOM AH-4, tuned looped longwire, to Hustler "dummy loads", to Hamstick whips, to Iron Horse whips, to 102" SS whips tuned with LDG tuners, on the 10, 20, 40, 75, and 80 meter bands. ALL of them were affected to varying degrees, but none were affected so little as to make communications in these areas possible.

So your contextual assumptions do not apply to this situation in the least. IMHO, BPL is a bad for the Amateur community, and for emergency communications in general.

The interference on CB is a completely different story.

-SSB

## 568. Re: Pipe antenna mast

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-16 15:50:15 UTC
From: kelly@dvol.com
Message-ID: <d22b54c3.0410160750.244d29cc@posting.google.com>
Source record: 88363

"Jimmie" <Gfender@carolina.rr.com> wrote in message
news:<bJTbd.62836$ci3.3662724@twister.southeast.rr.com>...
> There used to be a web site about building pipe antenna mast. The kind that
> looks like a giant telescoping antenna. I havent been there in years and
> cant find it now. I hope I am just googling for the wrong thing. I first
> learned about tit in an article on same in 73. Any info on this site or
> other similar would be greatly appreciated.

Ham Radio magazine published a number of articles on the design &
construction of antenna masts for ham applications.

http://webhome.idirect.com/~griffith/hr/hrind01e.htm

The ARRL store sells a CD for $40 which contains all issues of HR
magazine and then some.

w3rv

## 569. Re: Pipe antenna mast

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-16 15:54:24 UTC
From: kelly@dvol.com
Message-ID: <d22b54c3.0410160754.46a806a3@posting.google.com>
Source record: 88364

"Jimmie" <Gfender@carolina.rr.com> wrote in message
news:<bJTbd.62836$ci3.3662724@twister.southeast.rr.com>...
> There used to be a web site about building pipe antenna mast. The kind that
> looks like a giant telescoping antenna. I havent been there in years and
> cant find it now. I hope I am just googling for the wrong thing. I first
> learned about tit in an article on same in 73. Any info on this site or
> other similar would be greatly appreciated.

Ooops! $150 . . .

w3rv

## 570. Re: Another lie...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-16 16:20:14 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <1Tbcd.31394$QJ3.2753@newssvr21.news.prodigy.com>
Source record: 88273

Richard Harrison wrote:
> Tom Donaly, KA6RUH wrote:
> "Richard, there is no such thing as a "current drop."
>
> This is where i came in almost a year ago. Yuri may havr posted Fig 9-22
> from page 9-15 of the 1994 edition of ON4UN`s "Low-Band DXing". There
> are base loading, center loading, and continuous loading examples of
> short vertical antennas, and their current distributions. In every case,
> the currents at the two ends of the coil are different.
>
> The impedance of an antenna is a function of position along the antenna.
> There is radiation from an antenna so not only is the impedance along an
> antenna a variable, but the the transmit power level power level along
> an antenna is a variable, too. These variables ensure a difference
> between the current into and out of a loading coil.
>
> Current is high where impedance is low, and current is high where power
> is high.
>
> Best regards, Richard Harrison, KB5WZI
>

Let me repeat, for those who might be tempted to use the term "current drop" in their casual conversation, there is no such thing as a "current drop." There can be variations in current in transmission lines, antennas, etc., but those are not "current drops." I'm surprised at you and Yuri, Richard. You two will have the CBers laughing at us.
73,
Tom Donaly, KA6RUH

## 571. Re: balcony railing mount for DBS dish

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-16 16:23:31 UTC
From: Mike <km6ab@pacbell.net>
Message-ID: <7Wbcd.6639$6q2.134@newssvr14.news.prodigy.com>
Source record: 88365
Cross-posted to: rec.radio.amateur.antenna,rec.video.satellite.dbs,rec.video.satellite.tvro,alt.dss.hack,alt.dbs.echostar.hack

Aside from all the legal arguing and BS within this group, the 5 gal can with concrete is a time proven method if the dish is adequately shielded from the wind. I have attached to similar railing using large stainless steel hose clamps. You can open the hose clamp, slide on a length of heatshrink tubing or even plastic hose and that will usually protect the railing surface. The hose clamps can hold a chunk of wood or fabricated metal to attach to the dish mount.
Good luck and happy TV.
Mike

Bill wrote:

> Hello
>
> I am trying to come up with a "balcony railing mount" for use with a
> Ku-band dish plus dish mover. I have searched google and have not
> found any online dealers which sell such a mount.
>
> My apartment is on the 11th floor with a railing on the outside patio,
> approx circumference is 12 inches (around).
>
> My apartment landlord is being "difficult" with roof access and wants
> me to subscribe to the apartment complex's own dish system.
>
> I simply want FTA programming.
>
> If anyone knows where I can find a balcony railing mount (or similar)
> please let me know
>
> thanks

## 572. Re: BPL AOK!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-16 16:24:21 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <UWbcd.31397$QJ3.19947@newssvr21.news.prodigy.com>
Source record: 88366

Wes Stewart wrote:

> On Sat, 16 Oct 2004 04:11:22 GMT, Richard Clark <kb7qhc@comcast.net>
> wrote:
>
> |(1200 new registered voters in 3 days)
>
> If these folks haven't bothered to register before and educate
> themselves on the issues, why should they be voting?
>
> As a BTW, the citizens of Arizona have the right to initiate law via
> the ballot. (There are a couple of propositions on the ballot to take
> away this right, politicians not wanting any meddling by the common
> folk, doncha ya know.)
>
> One of these initiative propositions would require a simple proof of
> citizenship when you register and when you show up at the polls. The
> usual suspects, i.e., the newspapers, the Hispanic "activists", my
> gerrymandered-into-office Hispanic congressman, etc. are needless to
> say suffering from severe panty bunching over this.
>
> They claim that there has never been any instance of non-citizens, or
> those ineligible, registering or voting.
>
> The evening news just reported that 45 residents of the county
> lock-up, felons all, were just registered to vote. Some of them
> several times.
>
> I guess that's good, huh?
>
>

What we need around here (California) is a law that says
you have to prove you're alive when you vote. Dead people
always seem to find their way to the polling booth on
election day in Northern California.
73,
Tom Donaly, KA6RUH

## 573. Re: I am normally mild and polite...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-16 16:26:08 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <nYbcd.40908$kz3.27190@fed1read02>
Source record: 88367

"Mike Coslo" <mcoslo@adelphia.net> wrote in message
news:dradnYe5RoQT6e3cRVn-2A@adelphia.com...
>
>
> Ed Price wrote:
>
>>
>> "Fractenna" <fractenna@aol.com> wrote in message
>> news:20041015131613.01927.00001336@mb-m23.aol.com...
>>

SNIP

>>> 3) The FCC has taken careful and measured steps to assure that US
>>> amateurs
>>> remain with the enjoyment of the HF bands, given the sharing of spectrum
>>> with
>>> BPL.
>>> 4)It is the very best scenario for all involved. That is definitely
>>> worth
>>> gloating over.
>>>
>>> Wishing you the best,
>>>
>>> Chip N1IR
>>
>>
>>
>> The "very best solution" would be to allow the utilities to use their
>> extensive system of power poles to string a fiberoptic cable to
>> residences (either direct, or maybe the last half-mile as an RF node). If
>> the power companies had spent their lobbying and legal money on
>> installing this base, a lot of people would now have high-speed net
>> connections.
>
> Ed, if my understanding is correct, the power companies will indeed be
> stringing fiber optic cables. There will be one going right by your house
> if you are blessed to live in an bpl blessed neighborhood. THe
> infrastructure must be built. I think there is an impression that the
> power companies are just going to alligator clip a bpl signal on the lines
> at the generating plant. Power lines are fair at delivering low frequency
> and high power. At HF they aren't so hot.
>
> So while you have the leaky, degraded signal with the dubious convenience
> of being placed from the HV lines to the other side of your line

> transformer (and let's just hope that has been worked out to be safe)
> wouldn't it just make more sense to get the fast signal from the proper
> source? Going right by your house....
>
> BPL is the industry equivalent of putting bicycle tires on a top fuel
> dragster.
>
> A triumph of politics over technology.
>
> - Mike KB3EIA -
>

I agree that the power companies can't couple to their intermediate distribution lines, since coupling across the next set of step-down transformers is poor. I was thinking that the power companies will have to run fiberoptic to the customer side of each of their lowest-level distribution transformers. (As an example, in my case, my residential power feed is a 240 VAC line that is parallel shared with about a dozen other residences. This 240 VAC is created from a 16 kV to 240 V transformer.)

The power service is already "right to my home." OTOH, the 16 kV distribution feeds are not always "running right past your home." (True, the 16 kV lines do run past some homes, in order to get to an efficient feed point for the 16 kV to 240 V transformer. Some people have their power flow "past" them, at 16 kV, only to come "back" at them at 240 V.)

BPL, as I understand it, will be radiating from a huge number of these 240 V residential clusters. Since the power company will have to use fiberoptic to get to their step-down transformers, it seems like they should use fiberoptic for the last leg too. (And then they wouldn't need a fiberoptic-to-240 V coupler at the transformer nor the 240 V-to-coax coupler at each residence.)

Ed
wb6wsn

## 574. Re: BPL AOK!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-16 16:28:23 UTC
From: fractenna@aol.com
Message-ID: <20041016122823.13013.00001628@mb-m21.aol.com>
Source record: 88368

>Fractenna wrote:
>
>>>If BPL is trashing the bands, it will make it that much more difficult
>>>to receive HF broadcasts, and HF Amateur transmissions, which will
>>>tend to get people away from HF. They won't want to put up with the
>>>interference. Bad idea.
>>>
>>>-SSB
>>
>>
>> How can you be on CB and say that no one puts up with interference? Also,
>the
>> actual number of hams affected is probably very small, so the point is
>> interesting but probably better posed in the context of :"if we don't get
>> novices again, with no code privileges, then..."
>>
>> 73,
>> Chip N1IR.
>
>CB is intended for short range communications, under 120 miles. Rarely
>will a legal station be able to transmit much more than 20 miles, when
>the hash and trash aren't throwing their deadkeys and noise toys.
>Completely different subject.
>
>Chip, you probably haven't been out driving around in the areas they
>were testing BPL, while trying to work a net. You can hear, literally,
>the "motorboating" from BPL interference 40-50 miles away from a test
>area. By the time you're within 10 miles of a test area, the noise
>from the BPL (different from magnesium lights and other urban noise
>sources) is close to 20db over S9.. making working the net nigh-on
>impossible. We're talking, minimum, a 100 mile radius around a BPL
>test site where the interference from BPL makes Amateur HF
>communications, at a minimum, extremely difficult, and at worst,
>impossible.
>
>Now, mind you, this is receiving from a "compromise" antenna. I've
>tried switching types from my 40-foot, ICOM AH-4, tuned looped
>longwire, to Hustler "dummy loads", to Hamstick whips, to Iron Horse
>whips, to 102" SS whips tuned with LDG tuners, on the 10, 20, 40, 75,
>and 80 meter bands. ALL of them were affected to varying degrees, but
>none were affected so little as to make communications in these areas
>possible.
>
>So your contextual assumptions do not apply to this situation in the

>least. IMHO, BPL is a bad for the Amateur community, and for emergency
>communications in general.
>
>The interference on CB is a completely different story.
>
>-SSB
>

Understood that you have certain feelings on the matter. Nonetheless, after careful analysis of the data, the FCC does not have the same extreme view. It is time to move on,not waste any more time and money, and welcome the new technology. Provisions exist to deal with the rare problems when they come up.

I would be very interested in any recording you may have of noise levels that high, Chris. Certainly you have greater mobility capability than many others in noting potential RFI from tens of miles away.

73,
Chip N1IR

## 575. Re: Another lie...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-16 16:44:38 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <Ps9P22L2$UcBFAMB@ifwtech.co.uk>
Source record: 88370

Richard Harrison wrote:
>Tom Donaly, KA6RUH wrote:
>"Richard, there is no such thing as a "current drop."
>
>This is where i came in almost a year ago. Yuri may havr posted Fig 9-22
>from page 9-15 of the 1994 edition of ON4UN`s "Low-Band DXing". There
>are base loading, center loading, and continuous loading examples of
>short vertical antennas, and their current distributions. In every case,
>the currents at the two ends of the coil are different.
>
Unfortunately those diagrams are misleading. They draw a current profile against a scale of electrical height, which makes it look as if there is a significant change in current along the length of the coil.

The current profile can only be correctly drawn against a scale of *physical* height. Then the error goes away, and the current is seen to be uniform through the coil. What does change is the shape of the current distribution above and below the coil.

All of ON4UN's math is good, and if you follow that instead of the pictures, you will find that the current through the coil is always assumed to be constant. In other words, he assumes an ideal inductor. The text and math shown that ON4UN actually understands the situation perfectly. I don't believe for a moment that he expected those diagrams to be so fundamentally misinterpreted.

>The impedance of an antenna is a function of position along the antenna.
>There is radiation from an antenna so not only is the impedance along an
>antenna a variable, but the the transmit power level power level along
>an antenna is a variable, too. These variables ensure a difference
>between the current into and out of a loading coil.
>
No: there is no change in current through a coil that is physically tiny, and doesn't have any capacitive coupling with the rest of the antenna. All the changes occur above and below the coil.

Any deviation from equal currents in and out has to be caused by the physical size of any real coil being non-zero. Then, even a physically small coil will behave like a very short section of helical monopole antenna. It is radiating an EM field, so there must also be some variation in current along its length. (The extreme case of a long coil is the fully helical whip, where the antenna and the coil are one and the same.)

There is also a lot of loose talk about "phase variation" due to an ideal inductor. This is NOT a phase variation in the current from end to

end! What changes is the phase of the voltage between the input and the output. At each end you are measuring the phase of the voltage, *relative* to the phase of the current which does *not* change.

Now someone is going to come right back at me, talking about "real life" this and "practical" that. But if someone does not understand how an inductor is even *meant* to behave, all their practical knowledge is built on sand - they may know lots of stuff, but they don't truly understand it.

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

## 576. Re: BPL AOK!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-16 16:53:12 UTC
From: fractenna@aol.com
Message-ID: <20041016125312.19078.00002688@mb-m29.aol.com>
Source record: 88369

>Oh, and I am licensed. In fact I went from 22 years on just CB to
>Extra in 6 months, without having to study anything except the Code.
>I'm dyslexic, so I had quite the time with that. Took me three tries
>to pass the code, but I did it, without a waiver.

Congrats on the persistence!

Back when I took the extra, you had to send 20 WPM --with a straight key--unless you were rich enough to have and bring a keyer--they weren't small or built-in those days! I think I could still send 20 WPM on a straight key, but I'm sure my arm would cramp up real fast.

The first time I took the general, I failed on the code copy. I bought one of those code LP's (I'm old, I know) and then studied a little. Failed again. That very night, I sat copying W1AW and did so for 30 nights straight.

Then I passed the exam.

Good life lesson for a youngster.

73,
Chip N1IR

# 577. Re: BPL NOT AOK! (with me)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-16 16:56:23 UTC
From: sideband <AINO8SPAMW@cac.net>
Message-ID: <Xoccd.9970$Rf1.4052@newssvr19.news.prodigy.com>
Source record: 88271

Fractenna wrote:

> I would be very interested in any recording you may have of noise levels that
> high, Chris. Certainly you have greater mobility capability than many others in
> noting potential RFI from tens of miles away.
>
> 73,
> Chip N1IR

Just as I would be interested in the sources of your data on the
Fractal antenna vs. the dipole in the aforementioned situation. That
is to say, the name(s) of the test range(s) you employed, and a POC at
each range.

Until that happens, my data is just as valid as yours. Of course,
mine's reproducible, and I can cite many others who have experienced
the same interference from BPL on different antennae than I've tried,
to include bugcatchers and screwdrivers.

I have a feeling my data is more valid than yours.

Besides, you try to document S-meter readings on different HF rigs
while rolling 65+ MPH down the road in a 73-foot long articulated
vehicle weighing up to 80,000 pounds. I'm sure you'd rather have me
driving than writing.

I can only document, after the fact, where, when, and a very close
estimation of what the s-meter readings were.

Can you even come close to this?

-SSB

-SSB

## 578. Re: balcony railing mount for DBS dish

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-16 17:49:04 UTC
From: Timothy Daniels <TDaniels@NoSpamDot.com>
Message-ID: <gZKdnYptxs-QwuzcRVn-rg@comcast.com>
Source record: 88272
Cross-posted to: rec.radio.amateur.antenna,rec.video.satellite.dbs,rec.video.satellite.tvro,alt.dss.hack,alt.dbs.echostar.hack

"CW" wrote:
>
> <kashe@sonic.net> wrote:
>> "Gary" wrote:
>> It's become pretty much of a game at an electronics chain
>> called Fry's, which everyone likes to mock. Some of their
>> door guards get pretty testy at times, though most know
>> that they're not to push it when a customer blows off their
>> attempts to "inspect"
>>
>> For some low grade entertainment, google frys + electronics.
>> The horror stories can be quite amusing.
>>
> Good to know that our Fry's is not unique.

I'm glad to know there's a real reason for my paranoia
about being suspect everytime I exit Fry's. Whenever
I go to a bits-'n-pieces electronics store, I wear a T-shirt
that is tucked into non-baggy pants so the store personnel
know I'm not shoplifting. I just *hate* that squinty-eyed
look that I get otherwise.... :-)

*TimDaniels*

## 579. Re: BPL NOT AOK!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-16 18:26:14 UTC
From: sideband <AINO8SPAMW@cac.net>
Message-ID: <aJdcd.8430$5b1.6523@newssvr17.news.prodigy.com>
Source record: 88274

I'm young.. but I'm not that young.. I remember 8-tracks, and they
were still popular while I was a child. I still have LP's, and a
player that works to play them on. Besides, Vinyl Sounds Better.

I got into Amateur radio later in life. In fact, I've not yet been
licensed for 4 years. This still doesn't speak to my knowledge in this
area.

I'll be the first to admit I have things to learn, and I'm no expert
in any one area. I do know what I've experienced with BPL, and it's
not been pleasant. Just ask the folks around the Orlando, Florida
area... Their BPL tests can be heard all the way across the state in
Titusville, and so greatly that it interferes with communications.

-SSB

Fractenna wrote:

>>Oh, and I am licensed. In fact I went from 22 years on just CB to
>>Extra in 6 months, without having to study anything except the Code.
>>I'm dyslexic, so I had quite the time with that. Took me three tries
>>to pass the code, but I did it, without a waiver.
>
>
> Congrats on the persistence!
>
> Back when I took the extra, you had to send 20 WPM --with a straight
> key--unless you were rich enough to have and bring a keyer--they weren't small
> or built-in those days! I think I could still send 20 WPM on a straight key,
> but I'm sure my arm would cramp up real fast.
>
> The first time I took the general, I failed on the code copy. I bought one of
> those code LP's (I'm old, I know) and then studied a little. Failed again.
> That very night, I sat copying W1AW and did so for 30 nights straight.
>
> Then I passed the exam.
>
> Good life lesson for a youngster.
>
> 73,
> Chip N1IR

## 580. Re: Another lie...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-16 18:54:51 UTC
From: k3bu@aol.comNoUsama
Message-ID: <20041016145451.16740.00002042@mb-m11.aol.com>
Source record: 88275

>
>Now someone is going to come right back at me, talking about "real life"
>this and "practical" that. But if someone does not understand how an
>inductor is even *meant* to behave, all their practical knowledge is
>built on sand - they may know lots of stuff, but they don't truly
>understand it.
>
>
>--
>73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
>http://www.ifwtech.co.uk/g3sek
>

Here we go again!

Where have you been Ian? Applying DC current behaviour in the inductor to standing wave RF current situation in the antenna, Eh?

In case you missed previous exchanges
http://www.k3bu.us/loadingcoils.htm

That is in practice and (right) theory. Cecil showed (hairpinned) model in EZNEC. And that ain't no lie!

73 and keep your readers informed properly :-)

Yuri, K3BU.us
www.computeradio.us home of "Dream Radio One"

## 581. Re: Patents

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-16 19:08:13 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <ckrrit$n7e$1@hercules.btinternet.com>
Source record: 88276

There is an antenna with dimensions as small as 1 / 70th ( 1.43 percent) of a wavelength which has a radiating efficiency as high as 98.0 percent.

It is a vertical copper tube, 1 metre high (39.4 inches), 25.4 mm (1 inch) in diameter, operating at 7 MHz.

It is only 0.86 dB worse than absolute perfection, equivalent to a loss of only 1 / 70th of an S-unit.

It is more efficient than a very high half-wave resonant dipole, using 14 awg wire, at the same frequency. And uses a far smaller amount of expensive copper.

Has anybody ever applied for a patent for such an antenna which has such an outstanding performance? And did the Patent Examiner raise his eyebrows at the claim?
---
Reg.

# 582. Re: BPL NOT AOK! (with me)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-16 19:20:36 UTC
From: fractenna@aol.com
Message-ID: <20041016152036.18589.00002691@mb-m29.aol.com>
Source record: 88277

>Just as I would be interested in the sources of your data on the
>Fractal antenna vs. the dipole in the aforementioned situation. That
>is to say, the name(s) of the test range(s) you employed, and a POC at
>each range.
>

Hi Chris,

Well, i answered your question, and since I have no reason to share it (when no one else is interested), I e-mailed it to you. Here's what I got back:

```
------------------------------
----- The following addresses had permanent fatal errors -----
<AI8W@cac.net>

----- Transcript of session follows -----
... while talking to cac.net.mail9.psmtp.com.:
>>> RCPT To:<AI8W@cac.net>
<<< 550 <AI8W@cac.net>: Recipient address rejected: User unknown in local
recipient table
550 <AI8W@cac.net>... User unknown

--------------------------------------
```

I conclude that you have no interest in the answer and just want to waste others' time.

Sorry; not playing.

73,
Chip N1IR

## 583. Re: BPL AOK!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-16 19:38:10 UTC
From: theplanters95@aol.comnospam
Message-ID: <20041016153810.24956.00003298@mb-m20.aol.com>
Source record: 88278

I have an unanswered question about BPL. Where I live has a very old power line system, full of splices and corrosion. How will splices affect the 1) the internet signal and 2) RFI?

Randy ka4nma

## 584. Re: Patents

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-16 20:12:46 UTC
From: "Eike Lantzsch, ZP6CGE" <eikelan@gmx.net>
Message-ID: <slrncn305u.dnc.eikelan@ID-77364.user.individual.net>
Source record: 88279

Reg Edwards wrote:
> 
> There is an antenna with dimensions as small as 1 / 70th ( 1.43 percent) of
> a wavelength which has a radiating efficiency as high as 98.0 percent.
> 
> It is a vertical copper tube, 1 metre high (39.4 inches), 25.4 mm (1 inch)
> in diameter, operating at 7 MHz.
> 
> It is only 0.86 dB worse than absolute perfection, equivalent to a loss of
> only 1 / 70th of an S-unit.
> 
> It is more efficient than a very high half-wave resonant dipole, using 14
> awg wire, at the same frequency. And uses a far smaller amount of expensive
> copper.
> 
> Has anybody ever applied for a patent for such an antenna which has such an
> outstanding performance? And did the Patent Examiner raise his eyebrows at
> the claim?
> ----
> Reg.
> 
> 

I don't know of any patents, but these "wonder antennas" are so
"efficient" because they use the feedline as a radiator. The feedline
is just terminated with a huge capacity. There is no magic to this -
it is just bad engineering. Good morning RFI!

Kind regards, Eike

## 585. Tnx, John - I also got the info offline. (nt)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-16 20:33:51 UTC
From: Old Ed <eXseniorsDeleteThisAndTheX@earthlink.net>
Message-ID: <PAfcd.5805$gy1.2134@newsread1.news.pas.earthlink.net>
Source record: 88280

(nt)

# 586. Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-16 20:59:10 UTC
From: k3bu@aol.comNoUsama
Message-ID: <20041016165910.16808.00001863@mb-m11.aol.com>
Source record: 88281

Howdy Antenna NGers,

I took the time to check out the Helix feature in EZNEC 4.08 and modeled the "worst" case - CB whip or 10 m whip with loading coil - helix half way up and then the same helix moved up to 3/4 way up. Things will get more pronounced when more turn, more inductance coil is used and frequencies are lower. Yes, Virginia there is a CURRENT DROP across the loading coil, unless you have more "appropriate" or "scientwific" term for it.

Rough dimensions: 1m mast (5 mm copper wire/tubing), 20 cm long coil/helix with 5 cm diameter turns, 5mm wire diameter, 10 turns, spacing 2 cm followed by 1 m whip
Resonated at 27.05 MHz
With base current 1 A, at the end of mast/start of coil the current is 0.87457 A
at the end of coil/start of whip the current is 0.66884 A - a decent drop of 0.20573 A or 20.5 % - not an "EQUAL" (you DC coil believer types!!!)

Then I moved the same coil up 50 cm, so the mast was 1.5 m, same coil, followed by .5 m of whip.
Again with base current of 1 A, the bottom of the coil had current this time was 0.65479 A, while top of the coil 0.37127 with larger drop of 0.28352 A or 28.3 % - even bigger not "EQUAL" with resonant frequency moving up to 28.7 MHz, which corresponds to REALITY measured, experienced and finally properly (close enough) modeled. Even M0RON (with apologies if there is call like that issued :-) can see the nice current drop across the coil displayed in the VIEW.

Thank you Roy (now you believe it?), Cecil, Richard. Now the unbelievers can even model this case themselves and SEE it properly. So ON4UN, K3BU, W9UCW, W5DXP, KB5WZI were and are right. W8JI, G3SEK et al are sooooo wrong :-) Some still persist, some are converted and many will be enlightened.

Now if Roy can incorporate elegant way of modeling real life coil/inductance by inputing Inductance L and its physical size and have it calculate things without modeling turns, that would be a winner and a segment saver.

So after all, those "dumb" hams pointed out 50 years of misinformation in even ARRL "bibles" like Antenna and Handbooks :-(yep, latest 2005 "revision" still has it in it)

Just watch W8JI to massage his web page and twist out of this one (yet another egg in the face :-)

Yuri Blanarovich, www.K3BU.us
www.computeradio.us

## 587. Re: BPL NOT AOK! (with me)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-16 21:42:04 UTC
From: sideband <AINO8SPAMW@cac.net>
Message-ID: <MAgcd.13399$3b6.4113@newssvr15.news.prodigy.com>
Source record: 88282

Well, if you've figured out my call, then you can figure out how to
find my real email address...

Like I'd put it on usenet so I can get more SPAM...

-SSB

Fractenna wrote:

>>Just as I would be interested in the sources of your data on the
>>Fractal antenna vs. the dipole in the aforementioned situation. That
>>is to say, the name(s) of the test range(s) you employed, and a POC at
>>each range.
>>
>
>
> Hi Chris,
>
> Well, i answered your question, and since I have no reason to share it (when no
> one else is interested), I e-mailed it to you. Here's what I got back:
>
> ------------------------------
> ----- The following addresses had permanent fatal errors -----
> <AI8W@cac.net>
>
> ----- Transcript of session follows -----
> ... while talking to cac.net.mail9.psmtp.com.:
>
>>>>RCPT To:<AI8W@cac.net>
>
> <<< 550 <AI8W@cac.net>: Recipient address rejected: User unknown in local
> recipient table
> 550 <AI8W@cac.net>... User unknown
>
> ------------------------------------
>
> I conclude that you have no interest in the answer and just want to waste
> others' time.
>
> Sorry; not playing.
>
> 73,
> Chip N1IR

## 588. Re: BPL AOK!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-16 21:44:17 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <RCgcd.10082$7R7.9901@newssvr16.news.prodigy.com>
Source record: 88283

Richard,
I wonder if 'they' will hold up the 'taking of office' until
after all the 'provisional' ballots are counted? What if the
count should change to favor the 'looser'? Wonder why I am still
amazed to hear how the government has "solved" a problem?
'Doc

PS - It was a joke, right??

## 589. Re: I am normally mild and polite...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-16 22:33:51 UTC
From: scott <scotty@beam_me_up.com>
Message-ID: <4171A1CD.29E5CC03@beam_me_up.com>
Source record: 88284

Good point ed !

Here in NC the bpl was wifi with a sealth antenna inside a streelight
so the hoa and others would not see it.

I agree, with all the poles they own along with the hi tension right of ways,
would cost them less to bury the fiber on the way then go wifi.

scotty

Ed wrote:

> "Fractenna" <fractenna@aol.com> wrote in message
> news:20041015131613.01927.00001336@mb-m23.aol.com...
> > Dear OM,
> >
> > I am sorry that you take personal offense; I will be happy to state why
> > this
> > was posted:
> >
> > 1) it has been an ongoing topic on this NG for a long time, and now we
> > have
> > final resolution;
> > 2) I did not expect nor require anyone to respond, ergo the 'troll factor'
> > is
> > not an issue;
> > 3) The FCC has taken careful and measured steps to assure that US amateurs
> > remain with the enjoyment of the HF bands, given the sharing of spectrum
> > with
> > BPL.
> > 4)It is the very best scenario for all involved. That is definitely worth
> > gloating over.
> >
> > Wishing you the best,
> >
> > Chip N1IR
>
> The "very best solution" would be to allow the utilities to use their
> extensive system of power poles to string a fiberoptic cable to residences
> (either direct, or maybe the last half-mile as an RF node). If the power
> companies had spent their lobbying and legal money on installing this base,
> a lot of people would now have high-speed net connections.
>
> BPL is simply a poor technical solution, and is an interim communications
> step that should be bypassed. You may gloat over your prediction accuracy,
> but certainly not over the existence of any form of BPL.

>
> Ed
> wb6wsn
>

## 590. Re: I am normally mild and polite...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-16 22:40:05 UTC
From: scott <scotty@beam_me_up.com>
Message-ID: <4171A343.34C0CAE@beam_me_up.com>
Source record: 88285

Sorry but I don't think so !

No, I don't have an impressive resume or advance degree in RF or anything.

BPL can't turn a profit without a large customer base. So, this bs about
the rural folk getting their internet cheap don't fly because of all the
hardware they need to string out in the country and that cost money.

Do you think the telco and cable co will loose customers to bpl, I don't.

DSL has dropped in price several times since the BPL dog and pony show
has started. Cable roadrunner has reduced the price and increased speed.

Now cell phone companies have the capacity to offer it via the new phones
and with a network card in your laptop or desktop.

If people need internet in rural area, let them dial in like I do.
Sure the kids need internet to stay on top of stuff but don't need
to download Gb size files with music and movie crap.

scotty

Fractenna wrote:

> >BPL is simply a poor technical solution, and is an interim communications
> >step that should be bypassed.
>
> Why wait? People have things to say and see right now.
>
> Ultimately, all telecom systems transition. BPL has the good fortune of having
> an infrastructure and a need right now; tomorrow; and for some time to come.
>
> Seize the day! Solve a pressing problem. BPL looks very promising.
>
> 73,
> Chip N1IR

## 591. Re: I am normally mild and polite...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-16 22:45:02 UTC
From: Jer <scams@fraudwatchinternational.com>
Message-ID: <2tdmjfF1tv0loU1@uni-berlin.de>
Source record: 88286

Go to tools, message rules, Blocked Senders List, News Rules, and check
the approapriate sections. works fine...

de Jer...

"Old Ed" <eXseniorsDeleteThisAndTheX@earthlink.net> wrote in message
news:2ISbd.3883$6k2.2949@newsread3.news.pas.earthlink.net...
> But for someone who comes on an amateur radio forum to gloat over
> the probable destruction of the HF radio spectrum, I'll make an exception.
>
> Will someone please tell me how to "killfile" this F***ING STUPID
> TROLL? I haven't quite figured out how to do it in OE6. (That will
> also save me from feeding this Troll, which I'm afraid I just did.)
>
> Thanks...
>
> "Fractenna" <fractenna@aol.com> wrote in message
> news:20041015080546.11769.00002359@mb-m29.aol.com...
>> For those who don't know it yet, the FCC approved modifications to Part
>> 15
>> regarding BPL.
>>
>> This is an extraordinary example of the FCC being both responsive to the
>> --need-for new technologies and innovative spectrum use, while invoking
> new
>> guidelines and requirements to assure dual use between licensed and
> unlicensed
>> users.
>>
>> I agree with Mr. Powell's assessment that it was a "banner day". The FCC
> did a
>> spectacular job!
>>
>> But, if you've followed my comments, you knew that this was my prediction
> for
>> some time...
>>
>> 73,
>> Chip N1IR
>
>

## 592. Re: BPL AOK!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-16 22:48:20 UTC
From: "Dee D. Flint" <deeflint01@comcast.net>
Message-ID: <2bWdnUUMudPPOOzcRVn-rQ@comcast.com>
Source record: 88287

"Theplanters95" <theplanters95@aol.comnospam> wrote in message
news:20041016153810.24956.00003298@mb-m20.aol.com...
> I have an unanswered question about BPL. Where I live has a very old
power
> line system, full of splices and corrosion. How will splices affect the
1) the
> internet signal and 2) RFI?
>
> Randy ka4nma

The internet signal will be crappy and subject to interruption by static from all kinds of sources. RFI generation will be severe. I do not know whether the splices and corrosion will make it worse but it certainly won't help matters.

Dee D. Flint, N8UZE

## 593. Re: Patents

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-16 23:05:36 UTC
From: fractenna@aol.com
Message-ID: <20041016190536.05710.00006290@mb-m14.aol.com>
Source record: 88288

>they use the feedline as a radiator. The feedline
>is just terminated with a huge capacity. There is no magic to this -
>it is just bad engineering. Good morning RFI!

..and yet hams think the G5RV is a wonder antenna:-)

Radiating feedline is not bad engineering. Its one of many design options,
applicable in some circumstances.

73,
Chip N1IR

## 594. Re: Another lie...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-16 23:07:11 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <F1XdQ4WfmacBFAN1@ifwtech.co.uk>
Source record: 88290

Yuri Blanarovich wrote:
>>
>>Now someone is going to come right back at me, talking about "real life"
>>this and "practical" that. But if someone does not understand how an
>>inductor is even *meant* to behave, all their practical knowledge is
>>built on sand - they may know lots of stuff, but they don't truly
>>understand it.
>>
>>
>>--
>>73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
>>http://www.ifwtech.co.uk/g3sek
>>
>
>Here we go again!
>
>Where have you been Ian? Applying DC current behaviour in the inductor to
>standing wave RF current situation in the antenna, Eh?
>
No.

Step 1: I am starting from the fundamental AC current behaviour of an ideal inductor. The phases of the voltages at its opposite ends are different; but at every given instant, the currents at its opposite ends are equal and in phase.

2. I am expecting that ideal inductor to behave in exactly the same way when used as a loading device in an antenna - which in fact it does, because exactly the same laws of physics apply.

3. Then I'm in a good place to start to think how that behaviour will change for a real inductor that has both physical size and capacitive coupling to the rest of the antenna.

>In case you missed previous exchanges
>http://www.k3bu.us/loadingcoils.htm
>
>That is in practice and (right) theory. Cecil showed (hairpinned) model in
>EZNEC. And that ain't no lie!
>
>73 and keep your readers informed properly :-)
>

Oh, I shall, I shall...

I'll begin by pointing out the obvious: an ideal inductor, a honkin' great length of Airdux and a shorted parallel stub are three physically different objects. Each one is a different kind of loading device, with different effects when inserted into an antenna - and none of those loading devices is the same as the length of real antenna that it's claimed to "replace".

The flaw in your viewpoint is that you are expecting a loading device to "replace" too many of the properties of a genuine piece of antenna. It actually replaces very few of them, and each different loading device does it in a different way.

Cecil's stub behaves exactly as expected - for a stub. But a shorted transmission line is not an inductor - it has some of the properties of an inductor, but not all of them. In particular, the currents at its two terminals can be unequal, because a stub can carry common-mode current and radiate and EM field, which an inductor cannot. Therefore the stub example is irrelevant to a discussion that is trying to compare various inductors.

The same is true of different types of inductors. The ideal inductor and the Airdux are both loading devices - they do not completely replace the missing piece of the antenna. They replace it in one respect only (making the feedpoint reactance equal to zero) but all other things about the loaded antenna are *different* from the full-sized antenna. In particular, the current and voltage distributions above and below the load are different from full size, and so of course is the feedpoint resistance.

I cannot explain every detail of Barry Boothe's measurements, but I know for certain that the true explanation is the one that obeys all the laws of physics and circuit theory, down to the last detail.

What you have, Yuri, is an "explanation" that uses those laws in some parts, but twists or ignores them in others. That cannot possibly be correct.

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

# 595. Re: EH-antenna: sensation or fraude?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-16 23:10:00 UTC
From: Walter Maxwell <w2du@iag.net>
Message-ID: <vn83n09c9flcjsjidbccutl28ofugd0mr9@4ax.com>
Source record: 88289

On 16 Oct 2004 13:07:25 GMT, fractenna@aol.com (Fractenna) wrote:

>>I am still dreaming about an ideal antenna having not more than 10% of
>>wavelength and 100% efficiency. Thanks for all the posts, anyhow.
>>
>>Bozidar, 9a2
>
>Moderate/high efficiency with a 10% physical height is pretty easy to attain.
>That's not an e/h antenna, as far as I am aware.
>
>
>The e/h antenna appears to ignore the main point about Maxwell's equations:
>changing fields generate changing fields. E' make B's and so on. You can't
>separate a changing E field from its B field, and so on. Thus the premise is
>wrong.
>
>In a --very-- small volume (fraction of a radiansphere), any single current max
>radiator is very inefficient. Similarly, any multiple current max radiator does
>not exhibit constructive interference in the far field. That's the physics.
>Antennas as a pure science are now an exhausted field.
>
>73,
>Chip N1IR

As I understand the theory behind Hart's 'EH' antenna, he believes that if the E and H fields in the radiator are somehow caused to be out of phase the radiation will be greater. We all know that when an RF voltage is applied to a conductor, such as a single-wire antenna (the radiator), a corresponding current flows in the radiator. We also know that the current flow produces both electric and magnetic fields, and the crucial point in this is that the E and H fields are inherently IN PHASE in time, but in space quadrature (90ï¿½ apart). Physical laws of nature as determined by Faraday and Ampere, and finalized by JC Maxwell, show that the E and H fields are immutably etched in time phase, and nothing in the feed configuration can alter that relationship.

Now along comes Hart, who says he can alter that relationship by inserting an inductance in series with the radiator, which he says delays the current 90ï¿½ behind the voltage, and thus the H field is delayed 90ï¿½ behind the E field.

I haven't read the claims in his patent, only the fiction appearing on his web page, but if the claims reflect his misguided, and invalid theory about altering the relationship between the E and H fields propagating along a radiating element, the US Patent Office has established a new theory of electromagnetics that contradicts Faraday, Ampere, and JC Maxwell.

What are we to do? Somehow we must fire the SOB's at the PTO.

Walt, W2DU

PS--don't you find it ironic that when radiation measurements are taken in the far field the measured power already relates directly to the power delivered to the radiator? Then if Hart's version radiates more power than the standard radiator, where does his extra power come from. Looks like he's invented a new version of the perpetual motion machine. After all, it's patented, isn't it? So it's gotta' work.

## 596. Re: BPL AOK!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-16 23:18:12 UTC
From: "NN7Kex<NOSPAM>k7zfg" <"NN7Kex<NOSPAM>k7zfg"@sbcglobal.net>
Message-ID: <U_hcd.6716$6q2.902@newssvr14.news.prodigy.com>
Source record: 88291

Dee D. Flint wrote:
> "Theplanters95" <theplanters95@aol.comnospam> wrote in message
> news:20041016153810.24956.00003298@mb-m20.aol.com...
>
>>I have an unanswered question about BPL. Where I live has a very old
>
> power
>
>>line system, full of splices and corrosion. How will splices affect the
>
> 1) the
>
>>internet signal and 2) RFI?
>>
>>Randy ka4nma
>
>
> The internet signal will be crappy and subject to interruption by static
> from all kinds of sources. RFI generation will be severe. I do not know
> whether the splices and corrosion will make it worse but it certainly won't
> help matters.
>
> Dee D. Flint, N8UZE
>
If open wire (telephone line) is a precident- ANY HI RESISTANCE, or ground, or
arcing in the instance of power will cause an unbalance of the circuit. This causes
a very high noise level on that circuit pair,
and would also cause it to RADIATE interference! And,
consider, that power companies have substancial arcing (caused by dirt, and loose
hardware), and ESCAPE (the induction from an A.C. line to other objects, if the
voltage is high enough and the magnetic field is strong enough), like fence lines
and telephone co. messenger (the steel cable that supports their telco cables),
paralleling it, and arcing to ground - there are several undesired effects even
WITHOUT BPL to cause QRN ! And btw, it is NOT necessary for a very good ground
to cause problems- just tree limbs are enough to cause a problem in this area.
ONLY GOOD part of the situation is the more current that flows thru the wire
(and hence the sleeves), the internal arcing in those bad sleeves tends to "SEAL"
or heal themselves for a duration- but if the current lowers to a substantial
amount, the problem will be BAAAAAACCCK !!! As info, Jim NN7K

--
To reply, remove the <NOSPAM>

# 597. Re: EH-antenna: sensation or fraude?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-16 23:53:07 UTC
From: k3bu@aol.comNoUsama
Message-ID: <20041016195307.03437.00001338@mb-m27.aol.com>
Source record: 88292

>
>Walt, W2DU
>
>PS--don't you find it ironic that when radiation measurements are taken in
>the
>far field the measured power already relates directly to the power delivered
>to
>the radiator? Then if Hart's version radiates more power than the standard
>radiator, where does his extra power come from. Looks like he's invented a
>new
>version of the perpetual motion machine. After all, it's patented, isn't it?
>So
>it's gotta' work.
>
>

That's nothing, have you seen : "Antenna faster than light?"

Saddly, patent laws were screwed up few years back, looks like patent office is rubber stamping applications as they come.

Then there is a bunch of "ham extremists" trying to apply DC laws to loading coils, ingnoring reality, parroting what they learned in the DC class. Good thing itsa ju's a hobby.

Yuri, K3BU.us

# 598. Re: Printing wire list from EZNEC?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-17 00:10:06 UTC
From: Chuck <wa7rai@raibeam.com>
Message-ID: <GEicd.6979$6P5.3909@okepread02>
Source record: 88293

Roy Lewallen <w7el@eznec.com> wrote in message
news:10mrbqpn5n2tg0c@corp.supernews.com...
> Chuck wrote:
> > . . .
> > That said, I take exception with your
> > statement regarding the
> > bi-directionality of the simulated
> > coaxial transmission lines in available
> > NEC(n) engines. Their simulations are
> > uni-directional - from the input to the
> > load, but not in reverse.
>
> That is patently false, and can be easily demonstrated. The transmission
> line model in NEC (and EZNEC) is a linear network which is completely
> bidirectional.
>

Roy,

Linear, yes... bi-directional? Not as I see
it... and leaves one wondering why NEC3
is available only to government entities
and contractors...

To confirm your claim, please post a
demonstration that confirms energy in the
load is flowing into the input.

Also, please repost your reply to my post
with the header "another lie..." as it did not
show up in my newsreader.

Thanks,

Chuck, WA7RAI

## 599. Re: Another lie...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-17 00:11:40 UTC
From: k3bu@aol.comNoUsama
Message-ID: <20041016201140.03437.00001340@mb-m27.aol.com>
Source record: 88294

>
>I cannot explain every detail of Barry Boothe's measurements, but I know
>for certain that the true explanation is the one that obeys all the laws
>of physics and circuit theory, down to the last detail.
>
>What you have, Yuri, is an "explanation" that uses those laws in some
>parts, but twists or ignores them in others. That cannot possibly be
>correct.
>>--
>73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
>http://www.ifwtech.co.uk/g3sek
>

You can't explain reality, but you have good arguments to support your
"theory".
Now you can plug in solenoid/helix into EZNEC 4.08 and see for yourself
what'sup (See my other recent post). We are not claiming that hairpin is exact
replacement for lumped inductor, but some properties when inserted into
modeling program illustrate better what is really happening (current is NOT
equal at both ends of the coil).
Take the fricken RF ammeters and stick'em in the coil's ends, you have
excellent current probe on your web site. As you can see from W9UCW
measurements and my recent example of 10m loaded vertical that there is
significant difference in the current across the loading coil (not equal) and
lower you go on frequency when antenna gets short relative to wavelength used,
the more pronounced the effect is.

Significance? As ON4UN points out, efficiency is proportional to the area under
the current curve, that is important for loaded antenna designers, and if they
understood this, we would not have the flood of "magical" wrongly loaded,
shortened antennas (like Vincent/UoRI "patented" crap).

Yuri, K3BU.us
just another "dumb" ham

## 600. Re: BPL AOK!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-17 00:26:43 UTC
From: kelly@dvol.com
Message-ID: <d22b54c3.0410161626.33d3ed16@posting.google.com>
Source record: 88295

fractenna@aol.com (Fractenna) wrote in message
news:<20041016080108.22732.00002129@mb-m15.aol.com>...
> >Love as usual,
> >
> >Brian w3rv
>
> Hi Brian,
>
> I imagine that when 10M comes back, I will be fascinated to do so. I still have
> the JRC and use it for MF antenna testing on occassion.
>
> I do hope that, when this occurs, we in the ham 'fraternity' (a horrible
> sexist misnomer IMO)

Only to an eternal college boy.

> will have finally switched to voice-digital modes on HF
> and away from SSB . Such digital modes are far less sensitive to supposed
> 'interference'. About time we were 'with it' and don't let the totality of the
> wireless/telecom revolution pass us by..

Tsk, tsk. Terrible troll, not even close to your usual product. Are
you getting old or are you just having a bad day?

> 73,
> Chip N1IR

Brian w3rv

## 601. Re: Another lie...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-17 01:15:44 UTC
From: richardharrison@webtv.net
Message-ID: <14572-4171C7C0-718@storefull-3253.bay.webtv.net>
Source record: 88298

Ian White, G3SEK wrote:
"The phases of the voltages at its (ideal inductor) ends are different, but at every given instant, the currents at its opposite ends are equal and in phase."

When an inductor is placed in a too short standing-wave antenna to correct its power factor, the volts, amps, and impedance at every point on the antenna result from superposition. In general, they vary from end to end. The impedance at any point results from a wave traveling from the feedpoint and a reflected wave from the open-circuit at the tip of the antenna. The reflected wave travels back toward the feedpoint. These waves combine to produce a standing-wave pattern on the antenna much as would be produced on a transmission line.

In a standing-wave antenna, such as Yuri has used as an example, of a coil loaded vertical, the impedance is high and the current is insignificant at the open-circuit antenna tip. The impedance is low and the current is high back 90-degrees from the antenna tip.

One end of the standing-wave, coil-loaded antenna is fed by its capacitance to the outside world. The other end is fed by its connection to the generator. There is no inherent balance in the feed to the antenna or a loading coil contained within the antenna.

A balanced feed to an ideal coil may result in the same current into and out, but an unbalanced feed to a coil will likely result in different currents in and out.

Certainly the same power in and out of a coil will produce differing volts and amps to comply with differing impedances at the input and output.

The extreme example comes from continuous loading. The entire antenna is a solenoid or coil of wire. The impedance at the tip is very high. At its feedpoint, the impedance is low. The current in the coil tapers from one end to the other. Adding conductors to either or both ends of the coil changes the current but does not usually eliminate current taper in the coil.

Best regards, Richard Harrison, KB5WZI

# 602. Re: Printing wire list from EZNEC?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-17 01:22:50 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10n3ibe9gioeca@corp.supernews.com>
Source record: 88297

Sorry, Chuck, I can't thing of one reason why I should accommodate you.

Roy Lewallen, W7EL

Chuck wrote:
>
> Roy,
>
> Linear, yes... bi-directional? Not as I see
> it... and leaves one wondering why NEC3
> is available only to government entities
> and contractors...
>
> To confirm your claim, please post a
> demonstration that confirms energy in the
> load is flowing into the input.
>
> Also, please repost your reply to my post
> with the header "another lie..." as it did not
> show up in my newsreader.
>
> Thanks,
>
> Chuck, WA7RAI
>
>

## 603. Trap dipole design 160/80m

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-17 01:23:08 UTC
From: Ken Bessler <kg0wx@NOSPAMyahoo.com>
Message-ID: <2tdvquF1u4n9cU1@uni-berlin.de>
Source record: 88296

I'm looking for any designs, tips, URLs, etc. that would help me build a 80/160 trap dipole. I've got the ARRL antenna book but it only offers specifics for multi trap (4-5 band) or 80 & up designs. Help!

tia!

Ken KG0WX

## 604. Re: balcony railing mount for DBS dish

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-17 01:49:17 UTC
From: Gary <satmaverick@REMOVEMEhotmail.com>
Message-ID: <xckcd.758901$gE.695001@pd7tw3no>
Source record: 88299
Cross-posted to: rec.radio.amateur.antenna,rec.video.satellite.dbs,rec.video.satellite.tvro,alt.dss.hack,alt.dbs.echostar.hack

They searched our backpacks at Disneyland, but had us open them.

"Fat Bastard" <a_fat_bastard-NOSPAM-@hotmail.com> wrote in message
news:ckpr9o02o66@news3.newsguy.com...
>
> "Gary" <satmaverick@REMOVEMEhotmail.com> wrote in message
> news:QpTbd.109835$a41.92699@pd7tw2no...
> >
> > Like some stores where on the door it says they reserve the right to
> inspect
> > packages, backpacks, purses etc brought into the store. Back in my
legal
> > relations class I learned that is against the law. They can say it all
> they
> > want - they do not have that right. - In Canada anyway.
>
> That was my understanding here in the states as well. Same goes for them
> inspecting your bags/packages/etc. as you LEAVE a business. However, they
> have gotten around that by claiming they are doing it for YOUR benefit, to
> be sure they didn't forget to give you one of your items you paid for.
>
> In todays world, i can understand them searching your bags if you are
> entering into a large public arena (sporting events, etc.), but it's still
a
> little intrusive, and some people take it way too far. you'll notice that
> they don't physically touch your bag or anything when they inspect, they
> actually have YOU pull stuff out of the way,e tc., and they just glance in
> real quick, to be sure you aren't carrying anything you aren't supposed
to.
> (this doesn't include airports, etc., where they do physically handle
things
> regularly, but the average store, etc. that wants to check your bags won't
> touch them physically, at least not usually, and not here in the states).
>
>

# 605. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-17 01:54:54 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <Ohkcd.31583$QJ3.10235@newssvr21.news.prodigy.com>
Source record: 88300

Yuri Blanarovich wrote:
> Howdy Antenna NGers,
>
> I took the time to check out the Helix feature in EZNEC 4.08 and modeled the
> "worst" case - CB whip or 10 m whip with loading coil - helix half way up and
> then the same helix moved up to 3/4 way up. Things will get more pronounced
> when more turn, more inductance coil is used and frequencies are lower. Yes,
> Virginia there is a CURRENT DROP across the loading coil, unless you have more
> "appropriate" or "scientwific" term for it.
>
> Rough dimensions: 1m mast (5 mm copper wire/tubing), 20 cm long coil/helix with
> 5 cm diameter turns, 5mm wire diameter, 10 turns, spacing 2 cm followed by 1 m
> whip
> Resonated at 27.05 MHz
> With base current 1 A, at the end of mast/start of coil the current is 0.87457
> A
> at the end of coil/start of whip the current is 0.66884 A - a decent drop of
> 0.20573 A or 20.5 % - not an "EQUAL" (you DC coil believer types!!!)
>
> Then I moved the same coil up 50 cm, so the mast was 1.5 m, same coil, followed
> by .5 m of whip.
> Again with base current of 1 A, the bottom of the coil had current this time
> was 0.65479 A, while top of the coil 0.37127 with larger drop of 0.28352 A or
> 28.3 % - even bigger not "EQUAL" with resonant frequency moving up to 28.7 MHz,
> which corresponds to REALITY measured, experienced and finally properly (close
> enough) modeled. Even M0RON (with apologies if there is call like that issued
> :-) can see the nice current drop across the coil displayed in the VIEW.
>
> Thank you Roy (now you believe it?), Cecil, Richard. Now the unbelievers can
> even model this case themselves and SEE it properly. So ON4UN, K3BU, W9UCW,
> W5DXP, KB5WZI were and are right. W8JI, G3SEK et al are sooooo wrong :-) Some
> still persist, some are converted and many will be enlightened.
>
> Now if Roy can incorporate elegant way of modeling real life coil/inductance by
> inputing Inductance L and its physical size and have it calculate things
> without modeling turns, that would be a winner and a segment saver.
>
> So after all, those "dumb" hams pointed out 50 years of misinformation in even
> ARRL "bibles" like Antenna and Handbooks :-(yep, latest 2005 "revision" still
> has it in it)
>
> Just watch W8JI to massage his web page and twist out of this one (yet another
> egg in the face :-)
>

> Yuri Blanarovich, www.K3BU.us
> www.computeradio.us

There may be a difference in current along the coil, but it isn't a current drop. There is no such thing as a current drop in the sense people use when they say "voltage drop." By the way, Yuri, since you are such an unsung genius of electromagnetic analysis, here's a challenge: design a loading coil for a short vertical radiator that doesn't have, or has only very little, current variation along its length.
73,
Tom Donaly, KA6RUH

## 606. Re: balcony railing mount for DBS dish

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-17 01:57:53 UTC
From: Gary <satmaverick@REMOVEMEhotmail.com>
Message-ID: <Bkkcd.120425$a41.54209@pd7tw2no>
Source record: 88301
Cross-posted to: rec.radio.amateur.antenna,rec.video.satellite.dbs,rec.video.satellite.tvro,alt.dss.hack,alt.dbs.echostar.hack

My brother made one up for his balcony, got one of those 4x4 post inserts, the ones with the plate on the bottom with 4 holes in it and the two bolts on the side for tightening the 4x4 up, the then placed it in a 15" tire rim and poured concrete into it. It gives it weight and the two bolts allowed him to put some shims in 1st to straighten up the post a bit and then tighten. the post goes almost right up to the rail and the dish hangs over to get him a line of sight as he faces eastward and slightly south. #rd floor of about 15 floors. (Its the tree that causes him problems and 3 times now he has had to do a 4:00 in the morning trimming while a buddy hangs out below with at 2 way radio watching for the security guard and piling the branches in his pickup. Is there a condo law against that LOL.

"Mike" <km6ab@pacbell.net> wrote in message
news:7Wbcd.6639$6q2.134@newssvr14.news.prodigy.com...
> Aside from all the legal arguing and BS within this group, the 5 gal can
> with concrete is a time proven method if the dish is adequately shielded
> from the wind. I have attached to similar railing using large stainless
> steel hose clamps. You can open the hose clamp, slide on a length of
> heatshrink tubing or even plastic hose and that will usually protect the
> railing surface. The hose clamps can hold a chunk of wood or fabricated
> metal to attach to the dish mount.
> Good luck and happy TV.
> Mike
>
>
>
> Bill wrote:
>
> > Hello
> >
> > I am trying to come up with a "balcony railing mount" for use with a
> > Ku-band dish plus dish mover. I have searched google and have not
> > found any online dealers which sell such a mount.
> >
> > My apartment is on the 11th floor with a railing on the outside patio,
> > approx circumference is 12 inches (around).
> >
> > My apartment landlord is being "difficult" with roof access and wants
> > me to subscribe to the apartment complex's own dish system.
> >
> > I simply want FTA programming.
> >
> > If anyone knows where I can find a balcony railing mount (or similar)

> > please let me know
> >
> > thanks

## 607. Re: Patents

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-17 02:01:48 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <gokcd.14620$nj.7690@newssvr13.news.prodigy.com>
Source record: 88302

Eike Lantzsch, ZP6CGE wrote:

> Reg Edwards wrote:
>
>> There is an antenna with dimensions as small as 1 / 70th ( 1.43 percent) of
>> a wavelength which has a radiating efficiency as high as 98.0 percent.
>>
>> It is a vertical copper tube, 1 metre high (39.4 inches), 25.4 mm (1 inch)
>> in diameter, operating at 7 MHz.
>>
>> It is only 0.86 dB worse than absolute perfection, equivalent to a loss of
>> only 1 / 70th of an S-unit.
>>
>> It is more efficient than a very high half-wave resonant dipole, using 14
>> awg wire, at the same frequency. And uses a far smaller amount of expensive
>> copper.
>>
>> Has anybody ever applied for a patent for such an antenna which has such an
>> outstanding performance? And did the Patent Examiner raise his eyebrows at
>> the claim?
>> ----
>> Reg.
>>
>>
>
>
> I don't know of any patents, but these "wonder antennas" are so
> "efficient" because they use the feedline as a radiator. The feedline
> is just terminated with a huge capacity. There is no magic to this -
> it is just bad engineering. Good morning RFI!
>
> Kind regards, Eike

It's theoretically possible to make small, highly efficient antennas,
but since the radiation resistance of such antennas is low as well as
the loss resistance, the Q is high and the bandwidth stinks.
73,
Tom Donaly, KA6RUH

# 608. Re: Trap dipole design 160/80m

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-17 02:21:28 UTC
From: "G.Beat" <nonow9mapsgb@no.comcast.spam>
Message-ID: <IGkcd.260739$D%.228584@attbi_s51>
Source record: 88303

"Ken Bessler" <kg0wx@NOSPAMyahoo.com> wrote in message
news:2tdvquF1u4n9cU1@uni-berlin.de...
> I'm looking for any designs, tips, URLs, etc. that would help me build a
> 80/160 trap dipole. I've got the ARRL Aantenna book but it only offers
> specifics for multi trap
> (4-5 band) or 80 & up designs. Help!
>
> tia!
>
> Ken KG0WX
>
Ken -

Unadilla has a set of traps that will work for a 75 / 160 or 80 / 160 trap dipole.
http://www.unadilla.com/traps.htm

I will assume a 2-band (80 Phone) 75 / 160 meter trap design. This design only uses a set of KW-80F traps.

From the center insulator, the wire is 63 feet and 8 inches to the trap and 42 feet and 1 inch after the trap to the end insulator.

BTW, Unadilla has just introduced a set of 60 meter traps for those 40 meter and 80 meter dipole users -- that would like to add the 5 channels to their antenna system!

w9gb

## 609. Re: Patents

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-17 02:30:33 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10n3maclfb4jq97@corp.supernews.com>
Source record: 88304

Tom Donaly wrote:
>
> It's theoretically possible to make small, highly efficient antennas,
> but since the radiation resistance of such antennas is low as well as
> the loss resistance, the Q is high and the bandwidth stinks.
> 73,
> Tom Donaly, KA6RUH

It also becomes difficult to transfer power to them without incurring signficant loss in the matching network components.

Roy Lewallen, W7EL

## 610. Re: Another lie... Ping Roy

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-17 02:39:18 UTC
From: Chuck <wa7rai@raibeam.com>
Message-ID: <DQkcd.7773$6P5.537@okepread02>
Source record: 88305

aunwin@insightbb.com <aunwin@insightbb.com@insightbb.com> wrote in message
news:nTFbd.249694$D%.245079@attbi_s51...
>
> "Roy Lewallen" <w7el@eznec.com> wrote in message
> news:10mu4pihhv8nb2a@corp.supernews.com...
[... ]
>
> The results of the test should put to rest any speculation
> > about this issue. I'm looking forward to the test and seeing the test
> > results.
> >
> > I get feedback from some of my professional customers who have the
> > capability to test the antennas they analyze with EZNEC. They report
> > very good agreement between analysis and measurement. Of course, most of
> > them are real pros in both modeling and measurement. Given the choice of
> > believing their results or Ken's and Chuck's, I go for theirs. Even
> > though you might not consider those folks to be "experts", I do.
> >
> > But by all means, let's look at the test results -- unless you believe
> > that "critical coupling" results in radiation that conventional test
> > ranges can't detect but hams can. . .
> >
> > Roy Lewallen, W7EL
>

Yes Roy,

It has been well established that the
available NEC engines model extremely
well with conventional designs. That is
not the issue.

Your innuendo regarding 'professional'
customers is silly. In my 67 years, have
been Chief Engineer of commercial radio
and television stations, as well as having
designed commercial radio and
television stations, including the first all
solar powered commercial (5 KW) FM
station in the US. You seem to opine
that the ability to make measurement's
is limited to a only special few.

Since none of your customers are
producing critically coupled designs,

your arguments in this regard are
without merit, and IMO, the intent of
this post was a failed attempt to
reduce my standing.

You claim to be a science minded
person, yet you choose to accept
theoretical results over contradicting
empirical data, and do so, without
even an iota of curiosity.

That is not science, it's closed-minded
silliness! Equally as silly, is your
raising such a stink over 1/3 of a dB...
which will prove to be your Waterloo. :)

73,
Chuck, WA7RAI

# 611. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-17 02:49:27 UTC
From: k3bu@aol.comNoUsama
Message-ID: <20041016224927.17374.00001981@mb-m27.aol.com>
Source record: 88307

>
>There may be a difference in current along the coil, but it isn't a
>current drop. There is no such thing as a current drop in the sense
>people use when they say "voltage drop."

So what you call decrease of current from one to the other?

> By the way, Yuri, since you
>are such an unsung genius of electromagnetic analysis,

Where is this coming from?

>here's a
>challenge: design a loading coil for a short vertical radiator that
>doesn't have, or has only very little, current variation along its length.
>73,
>Tom Donaly, KA6RUH
>

No need for that, W8JI has plenty of them, go ask him.
Are you trying to bu funny or play trolling Chipster here?

73 Yuri

## 612. Re: Another lie... Ping Roy

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-17 02:52:20 UTC
From: k3bu@aol.comNoUsama
Message-ID: <20041016225220.17374.00001982@mb-m27.aol.com>
Source record: 88308

>
>You claim to be a science minded
>person, yet you choose to accept
>theoretical results over contradicting
>empirical data, and do so, without
>even an iota of curiosity.
>
>That is not science, it's closed-minded
>silliness! Equally as silly, is your
>raising such a stink over 1/3 of a dB...
>which will prove to be your Waterloo. :)
>
>73,
>Chuck, WA7RAI
>
>

I'l second that!
Very precisely put :-)

Yuri

# 613. Re: Printing wire list from EZNEC?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-17 02:53:53 UTC
From: Chuck <wa7rai@raibeam.com>
Message-ID: <K1lcd.7774$6P5.2865@okepread02>
Source record: 88306

Roy Lewallen <w7el@eznec.com> wrote in message news:10n3ibe9gioeca@corp.supernews.com...
> Sorry, Chuck, I can't thing of one reason why I should accommodate you.
>

Gee, Roy... does this mean you don't
want me to know your reply to my
acceptance of your challenge? Having
second thoughts about this, perhaps?

In any event, there's always Google...
aside from that, some good person
here will post it, I'm sure.

Does this also mean that you cannot
back up your bi-directional claims with
facts?

A pity...

Chuck, WA7RAI

> Roy Lewallen, W7EL
>
> Chuck wrote:
> > >
> > > Roy,
> > >
> > > Linear, yes... bi-directional? Not as I see
> > > it... and leaves one wondering why NEC3
> > > is available only to government entities
> > > and contractors...
> > >
> > > To confirm your claim, please post a
> > > demonstration that confirms energy in the
> > > load is flowing into the input.
> > >
> > > Also, please repost your reply to my post
> > > with the header "another lie..." as it did not
> > > show up in my newsreader.
> > >
> > > Thanks,
> > >
> > > Chuck, WA7RAI
> > >
> > >

## 614. Re: Another lie...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-17 03:23:52 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cksok8$elc$1@hercules.btinternet.com>
Source record: 88309

Ian, if I ever understood, I have long ago lost track of the raging arguments and consequences.

You are quite correct, of course, in your analysis of what goes on in and around a loading coil. But in the face of such rigid minds and attitudes your attempts to convince people of the errors in their ways by simple logic is doomed to failure.

A solenoidal coil of wire, a loading coil of any proprtions, can be considered to be a continuously loaded, fat, relatively short, single wire, transmission line.

Because of the inductive loading it will have a much higher Zo than a solid cylinder of the same length and diameter.

Its inductance per unit length will be that of the coil.

Its capacitance per unit length will be largely unchanged. For close-wound turns tt will be the same as the solid cylinder. For spaced turns capacitance will only be slightly reduced and calculable.

Zo = Sqrt(L/C) and R is the wire HF resistance including proximity effect.

To simplify, for a first approximation R can be neglected and the line becomes loss-less. If the length of coil is long enough then its radiation resistance Rrad may be high enough to be taken into account alongside R.

The propagation velocity V = 1/Sqrt(L*C) from which phase-shift per unit length of coil can be calculated. (Phase shift appears to be a sore point in the arguments)

If necessary, attenuation per unit length can be calculated from R+Rrad.

The properties of this line, the coil, is now amenable to normal transmission line analysis with a fair degree of accuracy. Accuracy is limited by the accuracy of determining coil dimensions. Such things as the increase in overall diameter by wire diameter matter.

Input impedance can be calculated from the terminating impedance. The terminating impedance is the remainder of the antenna (another transmission line) but for the purpose of settling arguments arbitrary values can be chosen.

The phase shifts relative to feedpoint at each junction along the loaded antenna can be calculated. Some of my programs use the above-described calculating method. But none of them have relative-phase outputs for the simple reason that nobody has yet found any practical use for such useless data and in any case there's usually not enough space on the screen.

All phases are relative. I've a feeling arguments have arisen because of confusion about what phases are relative to. You've been arguing about different things and you can't ALL be that stupid. Unfortunately, communication via newsgroups cannot make use of body-language. ;o) ;o)
---
Reg, G4FGQ

## 615. Re: Another lie... Ping Roy

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-17 03:30:30 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10n3pqpcejalr3b@corp.supernews.com>
Source record: 88310

I wouldn't bother responding, but I'm afraid some readers might be misled by what's being said here.

Chuck wrote:
> 
> Yes Roy,
> 
> It has been well established that the
> available NEC engines model extremely
> well with conventional designs. That is
> not the issue.
> 
> Your innuendo regarding 'professional'
> customers is silly. In my 67 years, have
> been Chief Engineer of commercial radio
> and television stations, as well as having
> designed commercial radio and
> television stations, including the first all
> solar powered commercial (5 KW) FM
> station in the US. You seem to opine
> that the ability to make measurement's
> is limited to a only special few.
> 
> Since none of your customers are
> producing critically coupled designs,
> your arguments in this regard are
> without merit, and IMO, the intent of
> this post was a failed attempt to
> reduce my standing.

The statement about professional users wasn't meant to be innuendo or any sort of slight, but simple fact. I was referring to the aerospace companies, government agencies, universities, broadcast consultants, international broadcast companies, space agencies, and the like that routinely use EZNEC, and some of whom continue to buy additional copies of the professional versions. (Surely you regard these as professional users?) And they don't tell me (or hardly anyone else) specifically the kinds of antenna they design. Since your antenna is seemingly the only one which is incapable of being modeled (other than ones which can't be modeled for well known and documented reasons), you alone must have the key to the magic involved.

The NEC-2 manual is available from the web. It explains in detail how the network model, which is used for transmission lines, is implemented. Surely someone with your extensive professional background is able to

read and understand it.

> You claim to be a science minded
> person, yet you choose to accept
> theoretical results over contradicting
> empirical data, and do so, without
> even an iota of curiosity.

Ah, here we go again. Someone makes claims that contradict known and widely accepted principles. Then the charge is made that anyone who disbelieves is narrow minded and without curiosity, and challenged to disprove the extraordinary assertions. I have no obligation to once more show the validity of accepted science; the evidence is there in abundance for anyone with curiosity to see. It's up to you to back up your extraordinary claims with evidence. All I've seen from you for evidence is a mention of back-yard measurements. This is hardly enough to convince me or any rational person that established physics is wrong. I've even put my money where my mouth is, and offered to pay for a real, objective test of your antenna. That's all you're going to get.

> That is not science, it's closed-minded
> silliness! Equally as silly, is your
> raising such a stink over 1/3 of a dB...
> which will prove to be your Waterloo. :)

And that isn't even worthy of a response.

Roy Lewallen, W7EL

## 616. Re: BPL NOT AOK!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-17 03:31:55 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0410161931.6f03825e@posting.google.com>
Source record: 88311

sideband <AINO8SPAMW@cac.net> wrote in message
> I'll be the first to admit I have things to learn, and I'm no expert
> in any one area. I do know what I've experienced with BPL, and it's
> not been pleasant. Just ask the folks around the Orlando, Florida
> area... Their BPL tests can be heard all the way across the state in
> Titusville, and so greatly that it interferes with communications.
>

Money talks, and common sense and real world reports take a walk. In most cases anyway. Some companies have already tried and discarded BPL. Problems o-plenty. Maybe others will see the light. The dark side has won a major battle, and Darth Chipster gloateth o-plenty, but the day is not lost yet. My R2 unit, "henry 2k console model", is jumping around beeping and squeaking just itching to join the battle. If they attack locally, I will give them sporadic shots of my BPL death beam via my various elevated radiating devices. I'll have them locking up like a J38 model speedsters hitting a canyon wall. The F.C.C brass should be flogged with leather whips for the obvious disregard of the currents users of the HF spectrum. It's all about money...Nothing else. All the reports of problems with the systems were ignored.
"Except by some owners, who dropped out of the BPL testing"
Also, many claims are pretty hokey...IE: they claim that they can null out problem frequencies, IE:, aircraft, etc, etc. But I hear of problems doing this. I hear it's not really that feasable if they want to maintain proper operation, and I also hear it doesn't really cure the problem, as the "nulling device" is not far from the user.
Take just aircraft alone...We are talking nulling say 2-3 mhz, 6 mhz, 8 mhz, 10 mhz, 11 mhz, 13 mhz, 17 mhz, 21 mhz, 27 mhz, just for a few...I may have missed some military bands, etc...
I have heard of no notching plans for amateur bands, so I guess we have to go to rf noise hell...:(
I bet the system will work great with all those notched holes...Not....

They still will be radiating those freq's on the main lines I would think. It's the biggest money grubbing farce I've ever heard of. Heck, with my radios and antennas, they could probably be blocks or even miles away, and I could still hear it. The Florida experience backs me up on this. I'm not just barking at the moon. Bye bye weak DX....Bye bye weak aircraft signals. Bye bye any rf weaklings...QRp will be extra fun being half the country will probably soon have their ears plugged with digital spew.
But, I bet they will hear me too, if the leakage is that bad...:) It will be a bad day for the empire if my R2 unit joins the fray. I'll keep those BPL techs a hopping all over the neighborhood. Remember,

most of the speculation is about damage to the hams, etc... But don't ignore the damage all the 1000's of hams and other rf emitting device owners will likely cause them. CB's will have to deal with them also, and you know how nasty signaled some cb'ers can get. I hear some 4-5 mhz wide as it is... I don't think they have really fully taken this into account yet. MK

## 617. Re: I am normally mild and polite...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-17 03:40:03 UTC
From: Bob <Bob@Bob.com>
Message-ID: <qQlcd.5079$At4.25804921@news.sisna.com>
Source record: 88313

"scott"
> If people need internet in rural area...

"If..." ?? Geesh <moo>, excuse me.

> ...let them dial in like I do.

1) www.wildblue.com
Two-way satellite coming mid-2005+/-. Anik F2 is up now.

2) Wi-Max
Huge range and very high speed. Coming soon to a tower near you, or even not so near.

3) Also, advanced DSL can now reach much further and faster.

## 618. Re: Patents

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-17 03:43:40 UTC
From: No Name <WhyEvenLook@HotMail.com>
Message-ID: <NTlcd.5080$Nl4.25621616@news.sisna.com>
Source record: 88314

"Fractenna"
> Radiating feedline is not bad engineering.
> Its one of many design options,
> applicable in some circumstances.

Yeah, like BPL !!!!!

ROTFLMAO.

Gotcha!

## 619. Re: Printing wire list from EZNEC?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-17 03:43:46 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10n3qjlae6ut069@corp.supernews.com>
Source record: 88312

Chuck wrote:
> Linear, yes... bi-directional? Not as I see
> it... and leaves one wondering why NEC3
> is available only to government entities
> and contractors...
> . . .

It's not clear why you have a problem with NEC-3 when it was superceded long ago by more-advanced NEC-4. NEC-4 can be purchased by nearly anyone, as a little web research would have quickly revealed. Yes, even you can buy NEC-4. But alas, it also doesn't take into account magical phenomena.

Roy Lewallen, W7EL

## 620. Re: balcony railing mount for DBS dish

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-17 04:08:23 UTC
From: Fat Bastard <a_fat_bastard-NOSPAM-@hotmail.com>
Message-ID: <cksr520ch1@news3.newsguy.com>
Source record: 88318
Cross-posted to: rec.radio.amateur.antenna,rec.video.satellite.dbs,rec.video.satellite.tvro,alt.dss.hack,alt.dbs.echostar.hack

It must be the same at fry's stores EVERYWHERE then. I notice the same here too.

"Timothy Daniels" <TDaniels@NoSpamDot.com> wrote in message news:gZKdnYptxs-QwuzcRVn-rg@comcast.com...

> I'm glad to know there's a real reason for my paranoia
> about being suspect everytime I exit Fry's. Whenever
> I go to a bits-'n-pieces electronics store, I wear a T-shirt
> that is tucked into non-baggy pants so the store personnel
> know I'm not shoplifting. I just *hate* that squinty-eyed
> look that I get otherwise.... :-)
>
> *TimDaniels*

## 621. Re: BPL AOK!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-17 04:10:33 UTC
From: kelly@dvol.com
Message-ID: <d22b54c3.0410162010.2850cf7b@posting.google.com>
Source record: 88315

"Dee D. Flint" <deeflint01@comcast.net> wrote in message
news:<2bWdnUUMudPPOOzcRVn-rQ@comcast.com>...
> "Theplanters95" <theplanters95@aol.comnospam> wrote in message
> news:20041016153810.24956.00003298@mb-m20.aol.com...
> > I have an unanswered question about BPL. Where I live has a very old
> power
> > line system, full of splices and corrosion. How will splices affect the
> 1) the
> > internet signal and 2) RFI?
> >
> > Randy ka4nma
>
> The internet signal will be crappy and subject to interruption by static
> from all kinds of sources. RFI generation will be severe. I do not know
> whether the splices and corrosion will make it worse but it certainly won't
> help matters.

A lousy splice could well act as a completely non-linear diode
detector and spew even more garbage everywhere up and down the whole
RF spectrum. It just keeps getting worse.

As to power line physical specifics kindly consider: To to a large
extent the radiated interference the BPL ISP's might bless us with, if
it ever gets off the ground, is dependent on the physical realities of
the line configurations they use.

Roll back decades ago and the phone companies rather easily beat their
interference problems (crosstalk for one) eons ago by using twisted
pairs of conductors to move comms along their wires. Twisted pairs of
conductors are generally inclined to reject incoming interference and
equally are not particulary inclined to radiate whatever signals they
might be transmitting from here to there analog or digital yes? Of
course. Goes back to some guy named Maxwell, has something to do with
the 3D electromagnetics right-hand and left-hand drive ya batty
"rules" he "discovered".

So it's become quite obvious to me that BPL and HF ham radio could
co-exist quite peacefully on the bands after they install their 3ï¿½
13Kv twisted pairs.

>
> Dee D. Flint, N8UZE

w3rv

## 622. Re: balcony railing mount for DBS dish

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-17 04:11:33 UTC
From: Fat Bastard <a_fat_bastard-NOSPAM-@hotmail.com>
Message-ID: <cksrb00cor@news3.newsguy.com>
Source record: 88320
Cross-posted to: rec.radio.amateur.antenna,rec.video.satellite.dbs,rec.video.satellite.tvro,alt.dss.hack,alt.dbs.echostar.hack

Actually, it's just the opposite. you are stuck on what you THINK is "legal" and what is truly legal. Unless your "balcony", etc., are specifically defined as what they are, and what is included, then they are not technically covered, because the LEGAL definition would be one based on the most COMMON and UNDERSTOOD definition, which is covered by the definition in the dictionary. You can't just randomly call something whatever you want, without providing definition and guidelines and examples, and expect others to know what it is, and expect it to be considered LEGAL.

It doesn't work that way my friend.

"Timothy Daniels" <TDaniels@NoSpamDot.com> wrote in message news:6Y-dnXRztv9v5u3cRVn-ow@comcast.com...
> "Fat Bastard" wrote:
> > Are you sure you have "patio's" and not "yards"? ;)
>
> As a matter of fact, all open air portions of our
> Units are called "balconies" in our CC&Rs,
> whether they are on the ground or protruding
> from elevated floors. But legal definitions would
> just confuse you.
>
>
> > You are just angry that I have proper definitions...
>
>
> You have dictionary definitions of words in
> everyday use - NOT legal definitions. As long
> as our CC&Rs defined a "rumpus room", they
> could call patios and balconies "rumpus rooms"
> and be just as valid. In short, you are stuck on
> everyday definitions and mistakingly apply them
> to legal documents.
>
> *TimDaniels*

## 623. Re: balcony railing mount for DBS dish

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-17 04:15:28 UTC
From: Fat Bastard <a_fat_bastard-NOSPAM-@hotmail.com>
Message-ID: <cksrib0d2f@news3.newsguy.com>
Source record: 88319
Cross-posted to: rec.radio.amateur.antenna,rec.video.satellite.dbs,rec.video.satellite.tvro,alt.dss.hack,alt.dbs.echostar.hack

No, I am not doing anything of the sort. I am informing you of your mistakes, and your CC&R's FLAWS, and how to correct them, and giving everyone something to think about, and something to base their own RESEARCH ON before diving into anything. If I make one person THINK about something, then it's a good thing.

I also specifically said that "I" would challenge your supposed CC&R's (based on your explanation of their wording, since i haven't specifically seen them to determine the reality of such statements), because i think your definitions and your assumptions are not up to par.

Trust me, one slight mistake in wording can mean the demise of your precious rules.

Still like to mess with you too. ;)

"Timothy Daniels" <TDaniels@NoSpamDot.com> wrote in message news:5KOdnQY3idKo4e3cRVn-vw@comcast.com...
> "Fat Bastard" wrote:
> > On another note, you are aware i'm just having a little fun with you, and
> > this subject, aren't you?
>
>
> I am aware that you are misinforming the public.
>
> *TimDaniels*

## 624. Re: BPL AOK!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-17 04:24:13 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <12q3n0pqnrmploam1bir17moi7dht3ptp4@4ax.com>
Source record: 88316

On Sat, 16 Oct 2004 21:44:17 GMT, 'Doc <w5lz@cwis.net> wrote:

> I wonder if 'they' will hold up the 'taking of office' until
>after all the 'provisional' ballots are counted? What if the
>count should change to favor the 'looser'? Wonder why I am still
>amazed to hear how the government has "solved" a problem?
> 'Doc
>
>PS - It was a joke, right??

Hi Doc,

Hold up the "taking of office?" You mean like it got "took" before
(as you may recall, no votes above 9 counted)?

In the last election cycle we had a close race for Senate between
Maria Cantwell (D. challenger) and Slade Gorton (R. incumbent) and it
was the Absentee Ballot from the rural counties that gave Slade the
boot and that final count took some several weeks (following his
concession).

In fact, the final count hardly saw a ripple in the ballot calendar.
If you consider the Oregon vote, it is 100% Absentee Vote.

Today the new registrant count has pushed past 1700 with the focus
moving back into the well-heeled suburbs. Same enthusiastic
participation in a traffic of SUVs following me through the parking
lot while I was looking for the designated parking place (I'm driving
a 25 foot RV style mobile registration office for the Office of
Elections and Records).

It is not without its amusing moments, and its irritating moments.
Yesterday had me in a tide pool of University students (their moment
to catch up on registration once back on campus) and they were quite
inventive on how they thought voting should work (with some as lazy as
their parents in the 'burbs). Back in the 'burbs today and this
frantic b**ch demanding guarantees for her mother (at her side).
There was nothing I could offer that was satisfactory and she
dominated everyone's time to get her agenda cleared first. I put up
with that just so far and cut that loose; gave my spiel (the facts of
life and how to cope); and her mother shook my hand while daughter
went into melt-down.

Another fellow with a thick accent asked why we didn't check identity
papers. I explained that if we got more than 1 signature from the
same address and the same voter, he would be visited post-haste. He
then asked what kept a foreigner from voting, I responded "5 years in

the penitentiary."

There's your joke.

73's
Richard Clark, KB7QHC

## 625. Re: EH-antenna: sensation or fraude?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-17 04:35:04 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <n0t3n0ti3vsl6drm09lvm0qaju3d4l1e3u@4ax.com>
Source record: 88317

On Sat, 16 Oct 2004 15:00:00 +0200, bozidar.pasaric@ri.htnet.hr
(Bozidar Pasaric) wrote:

>By the way, it was interesting to read that once an issued US Patent
>was a guarantee that the patent at least worked

Hi Bozidar,

This is one of those cosmic jokes that everyone believes and has no
grain of truth within it whatever.

There is NO necessity of the invention being able to work and it never
has been a necessity (cute stories aside). The Patent as a concept is
first and foremost based on CAPITALISM (remember the cold war?). The
Patent Office WILL NOT grant you a Patent unless you can offer how it
has a market advantage.

If you say your antenna will make your teeth brighter for a nice smile
- you get a number! Do you need to prove it? NO! The only thing you
need to prove is that you thought your teeth got brighter and no one
thought of THAT before. So, if someone builds your design to brighten
teeth, you get to take them to court. And why? Because it infringes
on your INCOME, not your intellect.

There is not one shred of science in any of this - except the words
they use to disguise the fraud.

73's
Richard Clark, KB7QHC

## 626. Fractenna lashes out at hams using BPL

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-17 04:42:59 UTC
From: jj <bb@e.bnh>
Message-ID: <ckst6e0ghd@enews3.newsguy.com>
Source record: 88222

He and his fractal antenna crap have been ridiculed so much on this
forum (rightly so)
that he feels compelled to use the BPL issue against fellow hams as a
weapon.

# 627. Re: BPL AOK!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-17 04:46:35 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0410162046.2adcf1dd@posting.google.com>
Source record: 88221

fractenna@aol.com (Fractenna) wrote in message
>
> My discovery dates to 1988.

Oh really....Why do you say: "Self-similar antennas have been known since Mushiake's 1948 work on self-complementary designs". Did you change names?
I assume you darken your hair? Add some in the middle with spray paint? You would be a definite old fart to have done that in 1948.
Oh...I get it now....You "reinvented" the self-complementary design that was first pioneered by Mushiake and then decided to call it a fractal, being he neglected to use that term when describing the same thing. Crafty little weasel he is, that Chip..Did you invent the dipole? It's a fractal. A simple version, but it's a fractal. I had a storebought fractal UHF TV antenna 30+ years ago. I bought it at radio shack. You'll need to sue them to maintain the status quo. The way I see it, you really didn't "discover" anything. You just picked out an obscure, already known, form of antenna, and "discovered" a new more stylish name for it. MK

## 628. Loading coil behaviour..

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-17 05:35:50 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <ckt0bl$okl$1@titan.btinternet.com>
Source record: 88223

Ian,

The equivalent shunt self-capacitance of a coil obviously affects the magnitude and phase of the current which flows in it. This particularly applies when a high-value loading coil is near to the top of a vertical antenna which is terminated with a very short rod or whip.

(The self-capacitance of an isolated coil is calculable and can be easily checked by using one of these small hand-held antenna analysers to measure a coil's self-resonant frequency extremely accurately.)

In the extreme case, when there is no whip, the only capacitance across the coil is its own self-capacitance. Yet to behave as a loading coil and draw current up the antenna below it, it is required to have a low impedance.

A circuit analysis becomes quite involved. The coil impedance has to be in the form of a series resonance with the length of antenna wire below it. So we have a series resonance in the presence of the coil's shunt capacitance.

From ordinary lumped circuit theory the equivalent coil Q drastically falls, a very large voltage appears across the coil, and a very large circulating current flows around the coil and its own self-capacitance.

Efficiency goes for a Burton and with a high power transmitter either the coil melts or collapses due to voltage-breakdown between turns.

The moral of this story is never to locate a loading coil near the top of an antenna. It also explains why maximum efficiency usually occurs between half-way and 2/3 of the way up.

With an exceptionally good ground maximum efficiency occurs with bottom loading. In which case you don't need a coil in the antenna at all. You can include it in the tuner.

To see how radiating efficiency of a short or long vertical changes with coil height and how coil loss increases extremely rapidly as the coil nears the top of the antenna, download in a few seconds program LOADCOIL from website below. Its quite safe to use the program - there's no danger of setting the coil on fire.

You can slide the coil up and down the antenna from the keyboard and immediately observe how a variety of parameters change. Also copious notes.
----
.....
Regards from Reg, G4FGQ
For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp

. . . . . .

## 629. Re: I am normally mild and polite...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-17 08:07:06 UTC
From: Roger <Delete-Invallid.stuff.groups@tm.net>
Message-ID: <1p94n0db4n994jrc3tj38bhoiuej03nu89@4ax.com>
Source record: 88224

On Sat, 16 Oct 2004 09:26:08 -0700, "Ed Price" <edprice@cox.net>
wrote:

>
>"Mike Coslo" <mcoslo@adelphia.net> wrote in message
>news:dradnYe5RoQT6e3cRVn-2A@adelphia.com...
>>
>>
>> Ed Price wrote:
>>
>>>
>>> "Fractenna" <fractenna@aol.com> wrote in message
>>> news:20041015131613.01927.00001336@mb-m23.aol.com...
>>>
>
>SNIP
>
<snip>
>> Ed, if my understanding is correct, the power companies will indeed be
>> stringing fiber optic cables. There will be one going right by your house
>> if you are blessed to live in an bpl blessed neighborhood. THe
>> infrastructure must be built. I think there is an impression that the
>> power companies are just going to alligator clip a bpl signal on the lines
>> at the generating plant.

It's my understanding they have to not only run the fiber optic cable,
but "reclip" it to the power line every mile or so. In the end they
are basically running a fiber optic feed, but the power line gets it
into the customer's home or business.

I'd really like to see a definitive write up on just how the
infrastructure works and the protocol.

As has been mentioned a number of times, Both Europe and Japan tried
BPL and gave up. Possibly it'll come back to haunt them, but it
sounds like they've already found it an unsatisfactory means for high
speed Internet connections.

Roger Halstead (K8RI & ARRL life member)
(N833R, S# CD-2 Worlds oldest Debonair)
www.rogerhalstead.com

>> Power lines are fair at delivering low frequency
>> and high power. At HF they aren't so hot.
>>
>> So while you have the leaky, degraded signal with the dubious convenience

>> of being placed from the HV lines to the other side of your line
>> transformer (and let's just hope that has been worked out to be safe)
>> wouldn't it just make more sense to get the fast signal from the proper
>> source? Going right by your house....
>>
>> BPL is the industry equivalent of putting bicycle tires on a top fuel
>> dragster.
>>
>> A triumph of politics over technology.
>>
>> - Mike KB3EIA -
>>
>
>
>I agree that the power companies can't couple to their intermediate
>distribution lines, since coupling across the next set of step-down
>transformers is poor. I was thinking that the power companies will have to
>run fiberoptic to the customer side of each of their lowest-level
>distribution transformers. (As an example, in my case, my residential power
>feed is a 240 VAC line that is parallel shared with about a dozen other
>residences. This 240 VAC is created from a 16 kV to 240 V transformer.)
>
>The power service is already "right to my home." OTOH, the 16 kV
>distribution feeds are not always "running right past your home." (True, the
>16 kV lines do run past some homes, in order to get to an efficient feed
>point for the 16 kV to 240 V transformer. Some people have their power flow
>"past" them, at 16 kV, only to come "back" at them at 240 V.)
>
>BPL, as I understand it, will be radiating from a huge number of these 240 V
>residential clusters. Since the power company will have to use fiberoptic to
>get to their step-down transformers, it seems like they should use
>fiberoptic for the last leg too. (And then they wouldn't need a
>fiberoptic-to-240 V coupler at the transformer nor the 240 V-to-coax coupler
>at each residence.)
>
>Ed
>wb6wsn

## 630. Re: Cushcraft CRX-450B

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-17 09:10:18 UTC
From: Lou <FFSTA17NO@SPAMACESS995.COM>
Message-ID: <iHqcd.5321$Ae.5169@newsread1.dllstx09.us.to.verio.net>
Source record: 88225

Did you ever find one yet? I may be able to help you. Reply direct, removing spam detours.

Lou

"Edflicek" <edflicek@wmconnect.com> wrote in message news:20040826212103.26512.00004246@mb-m03.wmconnect.com...
>I am looking for the above antenna for my commercial radio.
>
> Thanks,
>
> Ed

## 631. Re: BPL AOK!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-17 10:42:27 UTC
From: fractenna@aol.com
Message-ID: <20041017064227.19078.00002724@mb-m29.aol.com>
Source record: 88226

> Are
>you getting old

Older, anyway:-)

Best,
Chip N1IR

## 632. Re: BPL AOK!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-17 10:48:37 UTC
From: fractenna@aol.com
Message-ID: <20041017064837.19078.00002725@mb-m29.aol.com>
Source record: 88227

>You just picked out an
>obscure, already known, form of antenna, and "discovered" a new more
>stylish name for it. MK

That life was so easy:-)

No Mark, I'm afraid (for you) there's more to it than that..

You have taken two statements that relate to different things, and tried to confuse people by combining them as one.

I believe the history of self similar antennas has been well documented in my publications, and the relevant excerpts are publicly available.

In any case, this is a BPL thread and you and I have already expressed our thoughts on that subject.

73,
Chip N1IR

## 633. Re: BPL AOK!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-17 10:50:40 UTC
From: fractenna@aol.com
Message-ID: <20041017065040.19078.00002726@mb-m29.aol.com>
Source record: 88228

>The way I
>see it, you really didn't "discover" anything.

Yes, I understand that you feel this way. The facts are different, as is the reality; both of which have accurately shaped the global perception.

73,
Chip N1IR

## 634. Re: Fractenna lashes out at hams using BPL

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-17 11:11:33 UTC
From: fractenna@aol.com
Message-ID: <20041017071133.19078.00002727@mb-m29.aol.com>
Source record: 88229

>He and his fractal antenna crap have been ridiculed so much on this
>forum (rightly so)
>that he feels compelled to use the BPL issue against fellow hams as a
>weapon.

My dear friend,

This is not the case.

I work with hams and have hams on my board. And, of course, I am a ham. There is no 'weapon'.

The issue is the following:

Does ham radio accept the wireless /telecom revolution, or does it live in the past?

Dual use of spectrum with the proper guidelines and thoughtful restrictions is the way to go, so that millions of folks can share in this evolving radio landscape. BPL will be only one of many adopted technologies in this mix.

What's happened is that a very few vocal hams have gone totally ballistic and used any and all tactics possible to try to kill a new technology called BPL.

My point is that those of us who dissent (relative to those such as yourself) on this matter , and in fact we have a logical, rational, and objective view, should have our opportunity to voice our opinion as well.

The few radical hams who have tried to represent radio amateurs in the United States as a whole, do not,in fact, represent that body.

The FCC must represent the people of the United States, and more specifically in this case, the WHOLE radio amateur service.

They watch out and do what's best for the SERVICE--not a few very vocal hams.

I think the latest modifications to Part 15 are a brilliant roadmap to allowing new technologies to be a viable dual user of spectrum with licensed services. That includes the BPL use of the HF spectrum.

I'm also very enthusiastic about the other technologies that have been discussed here, including, among others, Wi-Max.

Obviously there will be some markets where BPL does well, and others where it won't.

But for a few vocal hams to try to kill a new technology only focuses the spotlight back on us, as, in fact, it has this past Summer and Spring (for example, the front page Wall Street Journal article). And that focus makes us

look antiquated and silly to the outside world.

I don't feel (and am not) antiquated and silly. Are you?

Hams need to move ahead--not just anecdotally-- with new modes and technologies. There is HUGE resistance to that, and the world has and is passing us by.

I think this is very sad, and I cannot condone that.

So this is how one very informed radio amateur feels.

With Best wishes,

Chip N1IR

## 635. Thermal and EM images of antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-17 12:27:31 UTC
From: Thierry <->
Message-ID: <41726534$1@news.vo.lu>
Source record: 88230

Hi,

To illustrate technical articles about EM radiations, I' m searching for thermal images of antennas during transmission ?
Images showing the EM field is welcome too (not radiation pattern but measured in situ and transposed in false colors)

Any URL to suggest ?

NB. I have well found some thermal images of electronic components but not of antennas.

Thanks in advance

Thierry, ON4SKY
http://www.astrosurf.com/lombry

## 636. Re: Trap dipole design 160/80m

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-17 12:37:59 UTC
From: Ken Bessler <kg0wx@NOSPAMyahoo.com>
Message-ID: <2tf7bpF1u2g9hU1@uni-berlin.de>
Source record: 88231

"G.Beat" <nonow9mapsgb@no.comcast.spam> wrote in message
news:IGkcd.260739$D%.228584@attbi_s51...
> "Ken Bessler" <kg0wx@NOSPAMyahoo.com> wrote in message
> news:2tdvquF1u4n9cU1@uni-berlin.de...
>> I'm looking for any designs, tips, URLs, etc. that would help me build a
>> 80/160 trap dipole. I've got the ARRL Aantenna book but it only offers
>> specifics for multi trap
>> (4-5 band) or 80 & up designs. Help!
>>
>> tia!
>>
>> Ken KG0WX
>>
> Ken -
>
> Unadilla has a set of traps that will work for a 75 / 160 or 80 / 160 trap
> dipole.
> http://www.unadilla.com/traps.htm
>
> I will assume a 2-band (80 Phone) 75 / 160 meter trap design. This design
> only uses a set of KW-80F traps.
>
> From the center insulator, the wire is 63 feet and 8 inches to the trap
> and 42 feet and 1 inch after the trap to the end insulator.
>
> BTW, Unadilla has just introduced a set of 60 meter traps for those 40
> meter and 80 meter dipole users -- that would like to add the 5 channels
> to their antenna system!
>
> w9gb

Thanks! That was exactly what I needed!

Ken KG0WX

# 637. Re: Thermal and EM images of antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-17 12:40:45 UTC
From: fractenna@aol.com
Message-ID: <20041017084045.29642.00002247@mb-m12.aol.com>
Source record: 88232

>Hi,
>
>To illustrate technical articles about EM radiations, I' m searching for
>thermal images of antennas during transmission ?

Wow...

That's no longer very common.

Some people have run smaller antennas on thermal paper to map the currents/voltages.

But a true thermal digital image of an antenna in situ is very difficult, because of convection currents.

A more common mode is to attach thermal sensors at various points on the antenna and map the temp as a function of time.

Is that what you had in mind?

73,
Chip N1IR

# 638. Re: Fractenna lashes out at hams using BPL

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-17 12:49:54 UTC
From: k3bu@aol.comNoUsama
Message-ID: <20041017084954.18589.00002710@mb-m29.aol.com>
Source record: 88233

>
>So this is how one very informed radio amateur feels.
>
>With Best wishes,
>
>Chip N1IR
>
>

Oh, not this sh1t again! Go away troller!!!

BUm

## 639. Re: Thermal and EM images of antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-17 13:31:22 UTC
From: You're wrong <NoWay@HotMail.com>
Message-ID: <Puucd.1$K73.1481868@news.sisna.com>
Source record: 88234

>> To illustrate technical articles about EM radiations,
>> I'm searching for thermal images of antennas during
>> transmission ?

"Fractenna"
> But a true thermal digital image of an antenna in situ
> is very difficult, because of convection currents.

Huh? Run some high power into the antenna and click the shutter button. What could be simpler (assuming you have the right camera). Obviously need a fair amount of power.

Could model it by simply looking at the current distribution in NEC (current equals heat, neglecting many other factors).

Comnection currents ?? <rolls eyes> Okay, run the experiment in a vacuum chamber <smirk>.

> A more common mode is to attach thermal sensors
> [WITH LONGER DANGLING WIRES???] at
> various points on the antenna and map the temp
> as a function of time.

Bull feathers. The leads would *obviously* (duh!!) screw-up the operation of the antenna (unless you're proposing fibre optic temp sensors).

BTW - (giving you the opportunity to change the subject and not answer the questions as per your normal MO thereby maintaining your extreme pompous to idiocy ratio), did we ever sort out who really invented or developed or suggested or discovered radiocarbon dating???????

## 640. Re: Trap dipole design 160/80m

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-17 13:47:25 UTC
From: "G.Beat" <nonow9mapsgb@no.comcast.spam>
Message-ID: <MJucd.381220$mD.269220@attbi_s02>
Source record: 88235

"Ken Bessler" <kg0wx@NOSPAMyahoo.com> wrote in message
news:2tf7bpF1u2g9hU1@uni-berlin.de...
>
> "G.Beat" <nonow9mapsgb@no.comcast.spam> wrote in message
> news:IGkcd.260739$D%.228584@attbi_s51...
>> "Ken Bessler" <kg0wx@NOSPAMyahoo.com> wrote in message
>> news:2tdvquF1u4n9cU1@uni-berlin.de...
>>>
>>> I'm looking for any designs, tips, URLs, etc. that would help me build
>>> a 80/160 trap dipole. I've got the ARRL Antenna book but it only offers
>>> specifics for multi trap
>>> (4-5 band) or 80 & up designs. Help!
>>>
>>> thanks!
>>>
>>> Ken KG0WX
>>>
>> Ken -
>>
>> Unadilla has a set of traps that will work for a 75 / 160 or 80 / 160
>> trap dipole.
>> http://www.unadilla.com/traps.htm
>>
>> I will assume a 2-band (80 CW) 80 / 160 meter trap design. This design
>> only uses a set of KW-80CW traps.
>>
>> From the center insulator, the wire is 63 feet and 8 inches to the trap
>> and 42 feet and 1 inch after the trap to the end insulator.
>>
>> BTW, Unadilla has just introduced a set of 60 meter traps for those 40
>> meter and 80 meter dipole users -- that would like to add the 5 channels
>> to their antenna system!
>>
>> w9gb
>
> Thanks! That was exactly what I needed!
>
> Ken KG0WX
================
OPPS !!!
The earlier measurements that I gave you were for the KW-80CW TRAP -- the 80
meter CW portion !!! Those earlier dimensions have center tuning at 3.675
MHz for 80 meters and 1.85 MHz for 160 meters (I corrected this above).

The 75 METER PHONE PORTION OF THE BAND using the KW-80F trap should be:

[Center insulator]------60 feet and 4 inches------[KW-80F trap]-------45 feet and 10 inches------[end]

The 75 meter center frequency at 3.875 MHz and
the 160 meter center frequency at 1.85 MHz

w9gb

# 641. Re: Thermal and EM images of antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-17 13:58:34 UTC
From: fractenna@aol.com
Message-ID: <20041017095834.22548.00000960@mb-m05.aol.com>
Source record: 88236

>Huh? Run some high power into the antenna and click the shutter button. What
>could be simpler (assuming you have the right camera). Obviously need a fair
>amount of power.

Thermal images register differentials in temperature . The lower horizon and ground are usually between 200-300 degrees Kelvin (with no water vapor, the horizon looks much colder) and it is thus an issue of looking at temperature changes that are typically a few degrees or less.

Antennas have surface areas and thus heating and cooling rates. The instantaneous thermal temperature is indicative of the point where these rates come into equilibrium.

The cooling rate will be affected by the surface layer of air. Usually, convective cooling is a big factor and biases the true temperature at the surface. Thus the actual temperature in air is different from that in a vacuum. I don't believe you are referring to a vacuum.

Electrical thermal probes can and are used.In order to have minimal effects on the current of the antenna, they are attached by a small but highly heat conductive paste--an electric insulator as well-- and then choked. Usually the leads are run normal to the radiator surface.

The amount of power you need is indeed, not small. Fairly large metal surfaces dissipate heat moderately well through radiation and air convection, so you could be burning up a fair amount of power and not be able to detect it with any great precision. If the heated surface is small, i'ts much easier. Most antennas of interest do not have small surfaces or lengths.

Hope this helps.

73,
Chip N1IR

## 642. Re: Thermal and EM images of antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-17 14:14:38 UTC
From: fractenna@aol.com
Message-ID: <20041017101438.28660.00000909@mb-m05.aol.com>
Source record: 88237

>Bull feathers. The leads would *obviously* (duh!!) screw-up the operation of
>the antenna (unless you're proposing fibre optic temp sensors).

Actually, the real problem is that the RF can screw up the very sensitive probe.

The trick is to do on-offs of antenna power, and register the temperature on the offs. The duty cycle must be adjusted so that the equilibrium temperature is being sampled properly. Most of the time, the temp drops noticeably after 30 seconds to a minute. In some cases, the probe can be quickly attached and then detached during the off cycle.

It's fun to do. Som experimenting shows how to mitigate 'to measure is to disturb' issues.

Best,
Chip N1IR

## 643. Re: Thermal and EM images of antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-17 14:57:02 UTC
From: You're wrong <NoWay@HotMail.com>
Message-ID: <2Lvcd.96$CH.3727517@news.sisna.com>
Source record: 88238

"Fractenna"
> Thermal images register differentials in temperature.
> The lower horizon and ground are usually between
> 200-300 degrees Kelvin...

I believe you're about half-way to proving that Thermal Images are impossible. What next? Santa Claus?

Perhaps the delta between our positions is that if the temperature increases are not significant, then I'm assuming that the information is not of value (for the purposes that I'm assuming). In other words, a flame test without the flame. Perhaps you're assuming another (more academic, less practical) purpose.

I've seen lots of foolishness in this general field (w.r.t. cell phones, fake heads and measuring temperatures- pure rubbish and a lack of common sense). The world would be a better place if they sent most of the researchers in this field on a one-way trip into outer space. The whole field seems to be infested with idiots (perhaps too much time experimenting with cell phones?).

# 644. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-17 15:12:24 UTC
From: John Smith <kd5yikes@mindspring.com>
Message-ID: <cku24r0mok@enews1.newsguy.com>
Source record: 88241

"Yuri Blanarovich" <k3bu@aol.comNoUsama> wrote in message
news:20041016165910.16808.00001863@mb-m11.aol.com...
> Howdy Antenna NGers,

(snip)

> So after all, those "dumb" hams pointed out 50 years of misinformation in
> even
> ARRL "bibles" like Antenna and Handbooks :-(yep, latest 2005 "revision"
> still
> has it in it)
>

I think you are taking what ARRL says out of context. I will quote from page 16-7 in The ARRL Antenna Book, 20th edition...

"The loading coil acts as the lumped constant that it is, and disregarding losses and coil radiation, maintains the same current flow throughout. As a result, the current at the top of a high-Q coil is essentially the same as at the bottom of the coil. This is easily verified by installing RF ammeters immediately above and below the loading coil in a test antenna."

Don't overlook the part about disregarding losses and coil radiation. And, don't overlook the part about verifying the current with ammeters. Have you done that?

The ARRL book doesn't even recommend using a loading coil with an 8 foot whip on the 10 meter band. Read the whole chapter. Note that your "coil" is 7.4% (6.7 degrees) of the antenna system length. It is no longer the lumped device which is assumed in the book. Please repeat your experiment on an 8-foot whip at 40 meters and then verify with current meters.

If you can still make the same assertions for 40 meters, submit your findings to the ARRL for publication. If they find them worthwhile, I'm sure they will publish them.

John

## 645. Re: Thermal and EM images of antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-17 15:16:48 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <3035n014tadgk9k0u2asocc0t1og5lh90m@4ax.com>
Source record: 88239

On Sun, 17 Oct 2004 14:27:31 +0200, "Thierry" <-> wrote:

>Images showing the EM field is welcome too (not radiation pattern but
>measured in situ and transposed in false colors)

Hi Thierry,

Go to:
http://home.comcast.net/~kb7qhc/antennas/Fields/index.htm
and select any particular antenna style, observe the "false" color
mapping of near fields, and tell me if this is what you mean.

73's
Richard Clark, KB7QHC

## 646. Re: Thermal and EM images of antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-17 15:23:11 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <fb35n0h6d92h299l5dptqdek3n2kcmeddb@4ax.com>
Source record: 88240

On Sun, 17 Oct 2004 11:57:02 -0300, "You're wrong" <NoWay@HotMail.com>
wrote:

> The world would be a better place if they sent most of the
>researchers in this field on a one-way trip into outer space. The whole
>field seems to be infested with idiots (perhaps too much time experimenting
>with cell phones?).

If I recall my reading of the "Hitchhiker's Guide to the Universe"
the telephone sanitizers were in the 2nd ship to leave - eh?

73's
Richard Clark, KB7QHC

# 647. Re: BPL NOT AOK!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-17 15:57:02 UTC
From: Wes Stewart <n7ws_@_yahoo.com>
Message-ID: <0o35n0hmuhukab7rrs9pblboj6v7big7t1@4ax.com>
Source record: 88242

On 16 Oct 2004 20:31:55 -0700, nm5k@wt.net (Mark Keith) wrote:

|sideband <AINO8SPAMW@cac.net> wrote in message
|> I'll be the first to admit I have things to learn, and I'm no expert
|> in any one area. I do know what I've experienced with BPL, and it's
|> not been pleasant. Just ask the folks around the Orlando, Florida
|> area... Their BPL tests can be heard all the way across the state in
|> Titusville, and so greatly that it interferes with communications.
|>
|
|Money talks, and common sense and real world reports take a walk. In
|most cases anyway. Some companies have already tried and discarded
|BPL. Problems o-plenty. Maybe others will see the light. The dark side
|has won a major battle, and Darth Chipster gloateth o-plenty, but the
|day is not lost yet. My R2 unit, "henry 2k console model", is jumping
|around beeping and squeaking just itching to join the battle. If they
|attack locally, I will give them sporadic shots of my BPL death beam
|via my various elevated radiating devices. I'll have them locking up
|like a J38 model speedsters hitting a canyon wall. The F.C.C brass
|should be flogged with leather whips for the obvious disregard of the
|currents users of the HF spectrum. It's all about money...Nothing
|else. All the reports of problems with the systems were ignored.
|"Except by some owners, who dropped out of the BPL testing"
|Also, many claims are pretty hokey...IE: they claim that they can null
|out problem frequencies, IE:, aircraft, etc, etc. But I hear of
|problems doing this. I hear it's not really that feasable if they want
|to maintain proper operation, and I also hear it doesn't really cure
|the problem, as the "nulling device" is not far from the user.
|Take just aircraft alone...We are talking nulling say 2-3 mhz, 6 mhz,
|8 mhz, 10 mhz, 11 mhz, 13 mhz, 17 mhz, 21 mhz, 27 mhz, just for a
|few...I may have missed some military bands, etc...
|I have heard of no notching plans for amateur bands, so I guess we
|have to go to rf noise hell...:(
|I bet the system will work great with all those notched
|holes...Not....
|
|They still will be radiating those freq's on the main lines I would
|think. It's the biggest money grubbing farce I've ever heard of. Heck,
|with my radios and antennas, they could probably be blocks or even
|miles away, and I could still hear it. The Florida experience backs me
|up on this. I'm not just barking at the moon. Bye bye weak DX....Bye
|bye weak aircraft signals. Bye bye any rf weaklings...QRp will be
|extra fun being half the country will probably soon have their ears
|plugged with digital spew.

|But, I bet they will hear me too, if the leakage is that bad...:) It
|will be a bad day for the empire if my R2 unit joins the fray. I'll
|keep those BPL techs a hopping all over the neighborhood. Remember,
|most of the speculation is about damage to the hams, etc... But don't
|ignore the damage all the 1000's of hams and other rf emitting device
|owners will likely cause them. CB's will have to deal with them also,
|and you know how nasty signaled some cb'ers can get. I hear some 4-5
|mhz wide as it is... I don't think they have really fully taken this
|into account yet. MK

Exactly.

I'm pretty sure that I've mentioned much of the following before but just in case...

My power company is a rural cooperative. It serves 29,000 customers spread over three counties. (one of these counties is larger than a few states.) It has 2900 miles of line (and I don't think that covers the 600' of underground feeder from the pole to my house). They serve from the river bottom land near Tucson to the top of a 9800' mountain and a community on the Mexican border. The company is also my ISP.

A few years ago I was fighting powerline noise and not getting a lot of help from the company. It wasn't for lack of interest on their part, they just didn't have the resources or trained personnel to isolate the problem(s). I basically wound up instructing their linemen about what to try.

During this time I wound up in contact with the company VP in charge of new technology. We had an interesting one-engineer-to-another conversation wherein he told me that they had experimented with a system to read customers' meters remotely using "common-carrier" signals on the lines. Sending guys around the service area in pickup trucks once a month to read meters was a big expense so they had a compelling motive to pull this off. They failed.

Even with very narrow-band, low-speed signaling, they couldn't even read a meter once a month. They finally went to meters with transmitters in them that can be read without the guy having to get out of his truck and walk around with the rattlesnakes.

And they're going to supply me with high speed Internet over the same wires?

## 648. Re: Thermal and EM images of antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-17 16:05:57 UTC
From: Wes Stewart <n7ws_@_yahoo.com>
Message-ID: <as55n0pcegok1kp45h2ao6auo4fbrqvnlm@4ax.com>
Source record: 88243

On Sun, 17 Oct 2004 14:27:31 +0200, "Thierry" <-> wrote:

|Hi,
|
|To illustrate technical articles about EM radiations, I' m searching for
|thermal images of antennas during transmission ?
|Images showing the EM field is welcome too (not radiation pattern but
|measured in situ and transposed in false colors)
|
|Any URL to suggest ?

Sure just buy a copy of this:

http://www.ansoft.com/products/hf/hfss/

## 649. Re: BPL AOK!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-17 16:08:00 UTC
From: derswede@aol.comspam.com
Message-ID: <20041017120800.09558.00001478@mb-m26.aol.com>
Source record: 88244

```
>> Are
>>you getting old
>
>Older, anyway:-)
>
>Best,
>Chip N1IR
```

Ah, but not wiser. Sad.

A

# 650. Re: Thermal and EM images of antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-17 16:08:16 UTC
From: fractenna@aol.com
Message-ID: <20041017120816.03602.00002421@mb-m04.aol.com>
Source record: 88245

>I believe you're about half-way to proving that Thermal Images are
>impossible. What next? Santa Claus?
>

It has already been proven that Santa Claus is impossible. Too many chimneys to crawl down (let alone up: Claus is morbidy obses as I recall)) in one night...

>Perhaps the delta between our positions is that if the temperature increases
>are not significant, then I'm assuming that the information is not of value

You miss the important issue. Heat is not dissipated at a point but over a surface. If I take a soldering iron, for example, and distribute its 40 watts of heat across a strip of 2 feet by 4 inches, for example, it won't get very warm in a differential way to ambient.

That re-distribution of heat across a larger surface area is how heat sinks work.

Ergo, the increase in --temperature-- at a point of measurement--or even across an area or region-- can be small, even though the total amount of ohmic loss may be high.

Thermal cameras register differential thermal radiation losses, not convective losses (per se). And the heat is distributed across a surface, not a point.

You can't take a picture of an antenna outside, and learn much about its ohmic loss, for example. (Too much convective cooling). Not unless its ohmic loss is confined to a small area, the air is rarefied and windless, and thus the temperature differential is a few degrees or more and indicative of bona fide radiative thermal heating/loss.

Hope you learned something:-)!

Best,
Chip N1IR

# 651. Re: Thermal and EM images of antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-17 16:10:55 UTC
From: fractenna@aol.com
Message-ID: <20041017121055.03602.00002422@mb-m04.aol.com>
Source record: 88246

>Subject: Re: Thermal and EM images of antenna ?
>From: Wes Stewart n7ws_@_yahoo.com
>Date: 10/17/2004 12:05 PM Eastern Daylight Time
>Message-id: <as55n0pcegok1kp45h2ao6auo4fbrqvnlm@4ax.com>
>
>On Sun, 17 Oct 2004 14:27:31 +0200, "Thierry" <-> wrote:
>
>|Hi,
>|
>|To illustrate technical articles about EM radiations, I' m searching for
>|thermal images of antennas during transmission ?
>|Images showing the EM field is welcome too (not radiation pattern but
>|measured in situ and transposed in false colors)
>|
>|Any URL to suggest ?
>
>Sure just buy a copy of this:
>
>http://www.ansoft.com/products/hf/hfss/
>

Hmmm.. where are the thermal images of "antennas during transmission"? All I see are simulation graphics, not antennas with power running through them.

73,
Chip N1IR

## 652. Re: BPL AOK!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-17 16:14:51 UTC
From: fractenna@aol.com
Message-ID: <20041017121451.03602.00002423@mb-m04.aol.com>
Source record: 88247

>Ah, but not wiser. Sad.
>

I agree with you, I am no wiser. But I've been told many times, over many years, that I'm precocious. You should be happy that I plateau'ed early:-)

I'm enjoying the wisdom immensely now that I have the grey hairs to go with it. Not a cause for sadness but celebration, if any:-)

Thanks for thinking of me and best wishes.

Chip N1IR

## 653. So, where does one get aluminum tubes for antenna construction?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-17 16:58:00 UTC
From: Doug McLaren <dougmc@frenzy.com>
Message-ID: <swxcd.14048$Rf4.6903@fe2.texas.rr.com>
Source record: 88248

I'm looking to make a 2m/70cm yagi antenna for working satellites.
The plans are out there, and it seems quite simple. (Or I could pay
$73 to Arrow Antenna, but I'll give it a shot myself first.)

So I hit Home Depot, and the closest thing I found to the approprite
beams was 1/8th inch steel rods. (Basically piano wire.)

It ought to work, and is stiff enough to not bend much under gravity,
but it's heavy, and I'll be holding this thing ...

The local hobby shop has more piano wire that's smaller, but it's
still steel, and as you get smaller, it looses the needed rigidity and
it sags too much.

The instructions suggest hollow alluminum tubes, which should be light
and strong, and a good conductor to boot, but where can I find these?

Also, I've seen Yagi instructions that suggest a that the beams not be
insulated from the boom, and I've seen instructions that say they
should be insulated from the boom (or the boom should be an insulator,
like PVC pipe.) Does it make a big difference? Does it affect the
dimensions of the antenna?

Thanks in advance ...

--
Doug McLaren, dougmc@frenzy.com, AD5RH
The face is familiar but i can't quite remember my name. Oh, there it is.

## 654. Re: So, where does one get aluminum tubes for antenna construction?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-17 17:42:44 UTC
From: Dave <noone@nowhere.com>
Message-ID: <HeKdna9kNa2DMu_cRVn-jg@crocker.com>
Source record: 88249

aluminum tubing can be found at industrial pipe suppliers, or for short pieces you can get tent poles to cut up. welding rod is another commonly used material, copper pipe is another one for small antennas. some people also use steel electrical conduit.

Insulating the elements will change the size they need to be... or you could look at it that when you don't insulate the elements from the boom they usually get shorter because they look fatter at the middle. there are arguments for both methods, but if you use a metallic boom i wouldn't insulate them because its more work if you don't have the proper tools and insulators handy, if you use pvc or something else then they will be insulated anyway.

"Doug McLaren" <dougmc@frenzy.com> wrote in message
news:swxcd.14048$Rf4.6903@fe2.texas.rr.com...
> I'm looking to make a 2m/70cm yagi antenna for working satellites.
> The plans are out there, and it seems quite simple. (Or I could pay
> $73 to Arrow Antenna, but I'll give it a shot myself first.)
>
> So I hit Home Depot, and the closest thing I found to the approprite
> beams was 1/8th inch steel rods. (Basically piano wire.)
>
> It ought to work, and is stiff enough to not bend much under gravity,
> but it's heavy, and I'll be holding this thing ...
>
> The local hobby shop has more piano wire that's smaller, but it's
> still steel, and as you get smaller, it looses the needed rigidity and
> it sags too much.
>
> The instructions suggest hollow alluminum tubes, which should be light
> and strong, and a good conductor to boot, but where can I find these?
>
> Also, I've seen Yagi instructions that suggest a that the beams not be
> insulated from the boom, and I've seen instructions that say they
> should be insulated from the boom (or the boom should be an insulator,
> like PVC pipe.) Does it make a big difference? Does it affect the
> dimensions of the antenna?
>
> Thanks in advance ...
>
> --
> Doug McLaren, dougmc@frenzy.com, AD5RH
> The face is familiar but i can't quite remember my name. Oh, there it is.

# 655. Re: So, where does one get aluminum tubes for antenna construction?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-17 17:49:35 UTC
From: Ralph Mowery <rmowery28146@earthlink.net>
Message-ID: <Pgycd.7051$NX5.1347@newsread3.news.atl.earthlink.net>
Source record: 88250

.
>
> The instructions suggest hollow alluminum tubes, which should be light
> and strong, and a good conductor to boot, but where can I find these?
>
> Also, I've seen Yagi instructions that suggest a that the beams not be
> insulated from the boom, and I've seen instructions that say they
> should be insulated from the boom (or the boom should be an insulator,
> like PVC pipe.) Does it make a big difference? Does it affect the
> dimensions of the antenna?

You might try looking at a sporting goods store for the elements , that is what the Arrow antennas started out as. Texas towers is a place you can order from.

The instructions must be followed exectally at 2 meters and above. The elements must be the same outside diameter. They can be solid or hollow without a change in length. If the boom is a nonconductor , that must be used, if the elements pass through and are insulated from the boom that must be done. The boom will have an effect on the elements almost as the same diameter as the boom diameter. While an inch or two might not make much differance on the low bands, it could put a 440 mhz antenna out of the band. You may be able to tune the swr to a low value but the patern will be way off and the antenna may not have much gain.

The antennas are not that hard to build.

## 656. Re: Thermal and EM images of antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-17 18:27:32 UTC
From: Thierry <->
Message-ID: <4172b997@news.vo.lu>
Source record: 88251

"You're wrong" <NoWay@HotMail.com> wrote in message
news:Puucd.1$K73.1481868@news.sisna.com...
> >> To illustrate technical articles about EM radiations,
> >> I'm searching for thermal images of antennas during
> >> transmission ?
>
> "Fractenna"
> > But a true thermal digital image of an antenna in situ
> > is very difficult, because of convection currents.
>
> Huh? Run some high power into the antenna and click the shutter button.
What
> could be simpler (assuming you have the right camera). Obviously need a
fair
> amount of power.

Look good, but I haven't the detector. I know a lot of companies but I only
need images

Thierry

>
> Could model it by simply looking at the current distribution in NEC
(current
> equals heat, neglecting many other factors).
>
> Comnection currents ?? <rolls eyes> Okay, run the experiment in a vacuum
> chamber <smirk>.
>
> > A more common mode is to attach thermal sensors
> > [WITH LONGER DANGLING WIRES???] at
> > various points on the antenna and map the temp
> > as a function of time.
>
> Bull feathers. The leads would *obviously* (duh!!) screw-up the operation
of
> the antenna (unless you're proposing fibre optic temp sensors).
>
>
>
> BTW - (giving you the opportunity to change the subject and not answer the
> questions as per your normal MO thereby maintaining your extreme pompous
to
> idiocy ratio), did we ever sort out who really invented or developed or
> suggested or discovered radiocarbon dating???????

>
>
>

# 657. Re: Thermal and EM images of antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-17 18:29:25 UTC
From: Thierry <->
Message-ID: <4172ba07$1@news.vo.lu>
Source record: 88252

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:fb35n0h6d92h299l5dptqdek3n2kcmeddb@4ax.com...
> On Sun, 17 Oct 2004 11:57:02 -0300, "You're wrong" <NoWay@HotMail.com>
> wrote:
>
> > The world would be a better place if they sent most of the
> >researchers in this field on a one-way trip into outer space. The whole
> >field seems to be infested with idiots (perhaps too much time
experimenting
> >with cell phones?).
>
> If I recall my reading of the "Hitchhiker's Guide to the Universe"
> the telephone sanitizers were in the 2nd ship to leave - eh?

Adams' books are indeed full of crazy ideas. I liked all his series ;-))

Thierry

>
> 73's
> Richard Clark, KB7QHC

# 658. Re: Thermal and EM images of antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-17 18:31:00 UTC
From: Thierry <->
Message-ID: <4172ba66$1@news.vo.lu>
Source record: 88253

"Fractenna" <fractenna@aol.com> wrote in message
news:20041017120816.03602.00002421@mb-m04.aol.com...
> >I believe you're about half-way to proving that Thermal Images are
> >impossible. What next? Santa Claus?
> >
>
> It has already been proven that Santa Claus is impossible. Too many
chimneys to
> crawl down (let alone up: Claus is morbidy obses as I recall)) in one
night...
>
>
> >Perhaps the delta between our positions is that if the temperature
increases
> >are not significant, then I'm assuming that the information is not of
value
>
> You miss the important issue. Heat is not dissipated at a point but over a
> surface. If I take a soldering iron, for example, and distribute its 40
watts
> of heat across a strip of 2 feet by 4 inches, for example, it won't get
very
> warm in a differential way to ambient.

Hi,

Even if the difference is not important vs. ambient air, a good image
processing will improve it.
This is not the problem.
The first step if to find someone able to picture it...

Thierry, ON4SKY
http://www.astrosurf.com/lombry

>
> That re-distribution of heat across a larger surface area is how heat
sinks
> work.
>
> Ergo, the increase in --temperature-- at a point of measurement--or even
across
> an area or region-- can be small, even though the total amount of ohmic
loss
> may be high.
>

> Thermal cameras register differential thermal radiation losses, not
convective
> losses (per se). And the heat is distributed across a surface, not a
point.
>
> You can't take a picture of an antenna outside, and learn much about its
ohmic
> loss, for example. (Too much convective cooling). Not unless its ohmic
loss is
> confined to a small area, the air is rarefied and windless, and thus the
> temperature differential is a few degrees or more and indicative of bona
fide
> radiative thermal heating/loss.
>
> Hope you learned something:-)!
>
> Best,
> Chip N1IR

# 659. Re: Thermal and EM images of antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-17 18:33:43 UTC
From: Thierry <->
Message-ID: <4172bb0a@news.vo.lu>
Source record: 88254

"Fractenna" <fractenna@aol.com> wrote in message
news:20041017101438.28660.00000909@mb-m05.aol.com...
> >Bull feathers. The leads would *obviously* (duh!!) screw-up the operation
of
> >the antenna (unless you're proposing fibre optic temp sensors).
>
> Actually, the real problem is that the RF can screw up the very sensitive
> probe.
>

Hi,

We can also do record such images in a lab. In a cold chamber (<10°C or
lower) and sending +1 kW tunes in the antenna
I am sure that with a sensitive thermal device like those sold by
http://www.x20.org/ we can do it.

Thierry, ON4SKY
http://www.astrosurf.com/lombry

> The trick is to do on-offs of antenna power, and register the temperature
on
> the offs. The duty cycle must be adjusted so that the equilibrium
temperature
> is being sampled properly. Most of the time, the temp drops noticeably
after 30
> seconds to a minute. In some cases, the probe can be quickly attached and
then
> detached during the off cycle.
>
> It's fun to do. Som experimenting shows how to mitigate 'to measure is to
> disturb' issues.
>
> Best,
> Chip N1IR

# 660. Re: Thermal and EM images of antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-17 18:36:27 UTC
From: Thierry <->
Message-ID: <4172bbad$1@news.vo.lu>
Source record: 88255

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:3035n014tadgk9k0u2asocc0t1og5lh90m@4ax.com...
> On Sun, 17 Oct 2004 14:27:31 +0200, "Thierry" <-> wrote:
>
> >Images showing the EM field is welcome too (not radiation pattern but
> >measured in situ and transposed in false colors)
>
> Hi Thierry,
>
> Go to:
> http://home.comcast.net/~kb7qhc/antennas/Fields/index.htm
> and select any particular antenna style, observe the "false" color
> mapping of near fields, and tell me if this is what you mean.
>

Hi Richard,

Fine... That gives already a good idea. Congratulaiton for the job !
If I can't find thermal versions I 'ld like to use those images. I will
contact you directly.
I bookmarked your link.

73
Thierry, ON4SKY
http://www.astrosurf.com/lombry

> 73's
> Richard Clark, KB7QHC

## 661. Re: Thermal and EM images of antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-17 18:38:35 UTC
From: Thierry <->
Message-ID: <4172bc2d$1@news.vo.lu>
Source record: 88256

"Wes Stewart" <n7ws_@_yahoo.com> wrote in message
news:as55n0pcegok1kp45h2ao6auo4fbrqvnlm@4ax.com...
> On Sun, 17 Oct 2004 14:27:31 +0200, "Thierry" <-> wrote:
>
> |Hi,
> |
> |To illustrate technical articles about EM radiations, I' m searching for
> |thermal images of antennas during transmission ?
> |Images showing the EM field is welcome too (not radiation pattern but
> |measured in situ and transposed in false colors)
> |
> |Any URL to suggest ?
>
> Sure just buy a copy of this:
>
> http://www.ansoft.com/products/hf/hfss/
>

Yes, I know. But I 'm short of money currently :-((
There also http://www.x20.org/
plus this one http://www.thermal-imaging-survey.co.uk/ maybe.

Thierry, ON4SKY
http://www.astrosurf.com/lombry

>
>

## 662. Gain per unit length of boom

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-17 19:33:49 UTC
From: "aunwin@insightbb.com"
Message-ID: <xOzcd.263953$D%.243703@attbi_s51>
Source record: 88257

My ARRL books go back a decade or more
and the graph showing gain per boom length
has several curves based on different measurements
e.t.c. Has a graph been made based solely on NEC
program findings over say a perfect ground and at a uniform height?
Art

## 663. Re: So, where does one get aluminum tubes for antenna construction?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-17 19:36:15 UTC
From: sideband <AINO8SPAMW@cac.net>
Message-ID: <PQzcd.10174$JQ3.2341@newssvr16.news.prodigy.com>
Source record: 88258

Cut apart an old TV antenna?

Just a thought...

-SSB

Doug McLaren wrote:

> I'm looking to make a 2m/70cm yagi antenna for working satellites.
> The plans are out there, and it seems quite simple. (Or I could pay
> $73 to Arrow Antenna, but I'll give it a shot myself first.)
>
> So I hit Home Depot, and the closest thing I found to the approprite
> beams was 1/8th inch steel rods. (Basically piano wire.)
>
> It ought to work, and is stiff enough to not bend much under gravity,
> but it's heavy, and I'll be holding this thing ...
>
> The local hobby shop has more piano wire that's smaller, but it's
> still steel, and as you get smaller, it looses the needed rigidity and
> it sags too much.
>
> The instructions suggest hollow alluminum tubes, which should be light
> and strong, and a good conductor to boot, but where can I find these?
>
> Also, I've seen Yagi instructions that suggest a that the beams not be
> insulated from the boom, and I've seen instructions that say they
> should be insulated from the boom (or the boom should be an insulator,
> like PVC pipe.) Does it make a big difference? Does it affect the
> dimensions of the antenna?
>
> Thanks in advance ...
>

## 664. Re: So, where does one get aluminum tubes for antenna construction?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-17 19:39:04 UTC
From: "aunwin@insightbb.com"
Message-ID: <sTzcd.198003$wV.18197@attbi_s54>
Source record: 88259

Dave, buy fishing rod material
and cover with aluminum foil
Art
"Dave" <noone@nowhere.com> wrote in message
news:HeKdna9kNa2DMu_cRVn-jg@crocker.com...
> aluminum tubing can be found at industrial pipe suppliers, or for short
> pieces you can get tent poles to cut up. welding rod is another commonly
> used material, copper pipe is another one for small antennas. some people
> also use steel electrical conduit.
>
> Insulating the elements will change the size they need to be... or you
could
> look at it that when you don't insulate the elements from the boom they
> usually get shorter because they look fatter at the middle. there are
> arguments for both methods, but if you use a metallic boom i wouldn't
> insulate them because its more work if you don't have the proper tools and
> insulators handy, if you use pvc or something else then they will be
> insulated anyway.
>
>
> "Doug McLaren" <dougmc@frenzy.com> wrote in message
> news:swxcd.14048$Rf4.6903@fe2.texas.rr.com...
> > I'm looking to make a 2m/70cm yagi antenna for working satellites.
> > The plans are out there, and it seems quite simple. (Or I could pay
> > $73 to Arrow Antenna, but I'll give it a shot myself first.)
> >
> > So I hit Home Depot, and the closest thing I found to the approprite
> > beams was 1/8th inch steel rods. (Basically piano wire.)
> >
> > It ought to work, and is stiff enough to not bend much under gravity,
> > but it's heavy, and I'll be holding this thing ...
> >
> > The local hobby shop has more piano wire that's smaller, but it's
> > still steel, and as you get smaller, it looses the needed rigidity and
> > it sags too much.
> >
> > The instructions suggest hollow alluminum tubes, which should be light
> > and strong, and a good conductor to boot, but where can I find these?
> >
> > Also, I've seen Yagi instructions that suggest a that the beams not be
> > insulated from the boom, and I've seen instructions that say they
> > should be insulated from the boom (or the boom should be an insulator,
> > like PVC pipe.) Does it make a big difference? Does it affect the
> > dimensions of the antenna?

> >
> > Thanks in advance ...
> >
> > --
> > Doug McLaren, dougmc@frenzy.com, AD5RH
> > The face is familiar but i can't quite remember my name. Oh, there it
is.
>
>

## 665. Re: So, where does one get aluminum tubes for antenna construction?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-17 19:39:08 UTC
From: Lou W <Louisnot@home.com>
Message-ID: <sTzcd.104971$a85.66110@fed1read04>
Source record: 88260

"Doug McLaren" <dougmc@frenzy.com> wrote in message
news:swxcd.14048$Rf4.6903@fe2.texas.rr.com...
> I'm looking to make a 2m/70cm yagi antenna for working satellites.
> The plans are out there, and it seems quite simple. (Or I could pay
> $73 to Arrow Antenna, but I'll give it a shot myself first.)
>
> So I hit Home Depot, and the closest thing I found to the approprite
> beams was 1/8th inch steel rods. (Basically piano wire.)
>
> It ought to work, and is stiff enough to not bend much under gravity,
> but it's heavy, and I'll be holding this thing ...
>
> The local hobby shop has more piano wire that's smaller, but it's
> still steel, and as you get smaller, it looses the needed rigidity and
> it sags too much.
>
> The instructions suggest hollow alluminum tubes, which should be light
> and strong, and a good conductor to boot, but where can I find these?
>
> Also, I've seen Yagi instructions that suggest a that the beams not be
> insulated from the boom, and I've seen instructions that say they
> should be insulated from the boom (or the boom should be an insulator,
> like PVC pipe.) Does it make a big difference? Does it affect the
> dimensions of the antenna?
>
> Thanks in advance ...
>
> --
> Doug McLaren, dougmc@frenzy.com, AD5RH
> The face is familiar but i can't quite remember my name. Oh, there it is.

Most major cities, and smaller ones too, will have recycling yards
that also sell all manner of alum, steel, stainless, brass
etc. Quite a variety of extrusions can be found here. Usually the price, in
my area san diego, is about $2 a pound. These are great places to get stuff
for building antenna

Lou
KE6LZS

# 666. Re: So, where does one get aluminum tubes for antenna construction?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-17 19:54:22 UTC
From: Bob Miller <rmiller47@satx.rr.com>
Message-ID: <e3j5n052pp7o0lbvim7eo4oguq6ouv3hqf@4ax.com>
Source record: 88261

On Sun, 17 Oct 2004 16:58:00 GMT, "Doug McLaren" <dougmc@frenzy.com>
wrote:

>I'm looking to make a 2m/70cm yagi antenna for working satellites.
>The plans are out there, and it seems quite simple. (Or I could pay
>$73 to Arrow Antenna, but I'll give it a shot myself first.)
>
>So I hit Home Depot, and the closest thing I found to the approprite
>beams was 1/8th inch steel rods. (Basically piano wire.)
>
>It ought to work, and is stiff enough to not bend much under gravity,
>but it's heavy, and I'll be holding this thing ...
>
>The local hobby shop has more piano wire that's smaller, but it's
>still steel, and as you get smaller, it looses the needed rigidity and
>it sags too much.
>
>The instructions suggest hollow alluminum tubes, which should be light
>and strong, and a good conductor to boot, but where can I find these?
>
>Also, I've seen Yagi instructions that suggest a that the beams not be
>insulated from the boom, and I've seen instructions that say they
>should be insulated from the boom (or the boom should be an insulator,
>like PVC pipe.) Does it make a big difference? Does it affect the
>dimensions of the antenna?
>
>Thanks in advance ...

I believe Texas Towers in Dallas sells anything you might need in
aluminum tubing appropos for antennas. Their web page doesn't come up
right now; maybe later...

Bob
k5qwg

## 667. Re: Another lie...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-17 20:38:53 UTC
From: richardharrison@webtv.net
Message-ID: <10858-4172D85D-86@storefull-3252.bay.webtv.net>
Source record: 88262

Ian White, G3SEK wrote:
"Step 1: I am starting from the fundamental AC current behaviour of an ideal inductor."

Good start, but incomplete. Fundamental a-c does not include a standing-wave wehich causes a variation of voltage, current, and impedance along the length of the inductor whether straight or coiled.

Best regards, Richard Harrison, KB5WZI

# 668. Re: Gain per unit length of boom

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-17 21:01:22 UTC
From: G&R <spam@limbo.hell>
Message-ID: <r4Bcd.2255$JG5.125638@news20.bellglobal.com>
Source record: 88266

Hi Art,

While this was the common theory many years ago, there other ways to get
gain from an antenna other than boom length and number of elements.

ie On 2m we are able to get 11.2 dBd on a 45inch boom with 3 elements
stacked 2 wide. Yes, this is range tested see results at
http://www.csvhfs.org/ant/CSANT04.HTML

73,
Guenther VE3CVS
www.degendesigns.com
info@degendesigns.com

"aunwin@insightbb.com" <aunwin@insightbb.com@insightbb.com> wrote in message
news:xOzcd.263953$D%.243703@attbi_s51...
> My ARRL books go back a decade or more
> and the graph showing gain per boom length
> has several curves based on different measurements
> e.t.c. Has a graph been made based solely on NEC
> program findings over say a perfect ground and at a uniform height?
> Art
>
>

## 669. Re: So, where does one get aluminum tubes for antenna construction?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-17 21:01:33 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <c-KdnaMZa9MXQO_cRVn-ig@comcast.com>
Source record: 88263

"Doug McLaren" <dougmc@frenzy.com> wrote in message
news:swxcd.14048$Rf4.6903@fe2.texas.rr.com...
> I'm looking to make a 2m/70cm yagi antenna for working satellites.
> The plans are out there, and it seems quite simple. (Or I could pay
> $73 to Arrow Antenna, but I'll give it a shot myself first.)
>
> So I hit Home Depot, and the closest thing I found to the approprite
> beams was 1/8th inch steel rods. (Basically piano wire.)
>
> It ought to work, and is stiff enough to not bend much under gravity,
> but it's heavy, and I'll be holding this thing ...
>
> The local hobby shop has more piano wire that's smaller, but it's
> still steel, and as you get smaller, it looses the needed rigidity and
> it sags too much.
>
> The instructions suggest hollow alluminum tubes, which should be light
> and strong, and a good conductor to boot, but where can I find these?
>
> Also, I've seen Yagi instructions that suggest a that the beams not be
> insulated from the boom, and I've seen instructions that say they
> should be insulated from the boom (or the boom should be an insulator,
> like PVC pipe.) Does it make a big difference? Does it affect the
> dimensions of the antenna?
>
> Thanks in advance ...
>
> --
> Doug McLaren, dougmc@frenzy.com, AD5RH
> The face is familiar but i can't quite remember my name. Oh, there it is.

Around here several mom&pop hardware stores carry Al tubing in 10 foot
lengths up to 1-1/4 OD. Also, building supply stores; not Home Depot or
Lowes. I would not use steel elements. For 432, you might be able to use
chunks of Al ground wire. Of course, there is Texas Towers, but I think the
longest piece you can UPS without a surcharge is 6 feet.

Tam/WB2TT

# 670. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-17 21:13:13 UTC
From: k3bu@aol.comNoUsama
Message-ID: <20041017171313.27265.00002673@mb-m03.aol.com>
Source record: 88264

>Don't overlook the part about disregarding losses and coil radiation. And,
>don't overlook the part about verifying the current with ammeters. Have you
>done that?
>
>The ARRL book doesn't even recommend using a loading coil with an 8 foot
>whip on the 10 meter band. Read the whole chapter. Note that your "coil" is
>7.4% (6.7 degrees) of the antenna system length. It is no longer the lumped
>device which is assumed in the book. Please repeat your experiment on an
>8-foot whip at 40 meters and then verify with current meters.
>
>If you can still make the same assertions for 40 meters, submit your
>findings to the ARRL for publication. If they find them worthwhile, I'm sure
>they will publish them.
>
>John
>

Been there, done it. Check for more story on the subject
http://www.k3bu.us/loadingcoils.htm

Yuri, K3BU.us

## 671. Re: So, where does one get aluminum tubes for antenna construction?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-17 21:13:49 UTC
From: fractenna@aol.com
Message-ID: <20041017171349.15036.00005127@mb-m02.aol.com>
Source record: 88265

Texas Tower. Nice folks.

73,
Chip N1IR

## 672. Re: BPL NOT AOK!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-17 21:47:31 UTC
From: Dave VanHorn <dvanhorn@cedar.net>
Message-ID: <r5ednXnxHNvFde_cRVn-sw@comcast.com>
Source record: 88267

> And they're going to supply me with high speed Internet over the same
> wires?

Those 60kV twisted pair lines are on order :)

--
KC6ETE Dave's Engineering Page, www.dvanhorn.org
Microcontroller Consultant, specializing in Atmel AVR

## 673. Re: So, where does one get aluminum tubes for antenna construction?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-17 21:48:10 UTC
From: "NN7Kex<NOSPAM>k7zfg" <"NN7Kex<NOSPAM>k7zfg"@sbcglobal.net>
Message-ID: <uMBcd.7002$6q2.1074@newssvr14.news.prodigy.com>
Source record: 88268

Tam/WB2TT wrote:
> "Doug McLaren" <dougmc@frenzy.com> wrote in message
> news:swxcd.14048$Rf4.6903@fe2.texas.rr.com...
>
>>I'm looking to make a 2m/70cm yagi antenna for working satellites.
>>The plans are out there, and it seems quite simple. (Or I could pay
>>$73 to Arrow Antenna, but I'll give it a shot myself first.)
>>
>>So I hit Home Depot, and the closest thing I found to the approprite
>>beams was 1/8th inch steel rods. (Basically piano wire.)
>>
>>It ought to work, and is stiff enough to not bend much under gravity,
>>but it's heavy, and I'll be holding this thing ...
>>
>>The local hobby shop has more piano wire that's smaller, but it's
>>still steel, and as you get smaller, it looses the needed rigidity and
>>it sags too much.
>>
>>The instructions suggest hollow alluminum tubes, which should be light
>>and strong, and a good conductor to boot, but where can I find these?
>>
>>Also, I've seen Yagi instructions that suggest a that the beams not be
>>insulated from the boom, and I've seen instructions that say they
>>should be insulated from the boom (or the boom should be an insulator,
>>like PVC pipe.) Does it make a big difference? Does it affect the
>>dimensions of the antenna?
>>
>>Thanks in advance ...
>>
>>--
>>Doug McLaren, dougmc@frenzy.com, AD5RH
>>The face is familiar but i can't quite remember my name. Oh, there it is.
>
>
> Around here several mom&pop hardware stores carry Al tubing in 10 foot
> lengths up to 1-1/4 OD. Also, building supply stores; not Home Depot or
> Lowes. I would not use steel elements. For 432, you might be able to use
> chunks of Al ground wire. Of course, there is Texas Towers, but I think the
> longest piece you can UPS without a surcharge is 6 feet.
>
> Tam/WB2TT
>
>
Also, try your nearest Welders Supply- for brazeing rods, tho, not aluminium,

would believe these are superior to piano wire! and is available in different diameters, and lengths, and certainly better than most copper, or aluminium of the same gauge in non-malialibility (more weight support if a bird lands on it) Jim nn7k

--
To reply, remove the <NOSPAM>

## 674. Re: I am normally mild and polite...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-17 22:15:25 UTC
From: Walter Maxwell <w2du@iag.net>
Message-ID: <u7r5n09s90eut4af7rcu6o0891j5v5lirs@4ax.com>
Source record: 88269

Hi Roger, we're really too close to need the internet--we should be using smoke signals instead. I'm in Mt. Pleasant, 26 mi from you in Midland. I was licensed in 1933 as W8KHK, and from then until 1940 I was the only ham in Isabella County. I live in DeLand, FL from Nov 1 to May 1, and in Mt. P the rest of the time. We should meet some day. Did you know the late Paul Woodland, W8EEY? He was originally from Alma, but moved to Midland, Bookness St off Eastman, after WW2.

I'll be going through Midland tomorrow to pick up my XYL at MBS, but won't have time then to make contact with you. Guess it'll have to be next year after we return in May.

C ya later,

Walt Maxwell, W2DU

## 675. Re: balcony railing mount for DBS dish

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-17 22:18:14 UTC
From: Timothy Daniels <TDaniels@NoSpamDot.com>
Message-ID: <YNidnYQaq4M_cu_cRVn-pA@comcast.com>
Source record: 88270
Cross-posted to: rec.radio.amateur.antenna,rec.video.satellite.dbs,rec.video.satellite.tvro,alt.dss.hack,alt.dbs.echostar.hack

"Fat Bastard" wrote:
> because the LEGAL definition would be one based on the
> most COMMON and UNDERSTOOD definition, which is
> covered by the definition in the dictionary.

If you started your legal argument with "It says in
Webster's dictionary...", you'd be laughed out of
court. The legal field frequently uses terms in a
way that is more precise than the definitions in
your "dictionary", and that is why our CC&Rs begin
by defining "Unit" and "Association" and "Owner" -
terms for which your "dictionary" wouldn't have a
precise-enough definition, and why they must be
defined within the document itself. That is the
situation in most fields, in fact - everyday terms
don't have the same meaning that they do in
specialty fields, and *most* people understand
that.

*TimDaniels*

## 676. Re: Another lie...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-17 23:15:29 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <vh0XlYRR0vcBFAYZ@ifwtech.co.uk>
Source record: 88171

Richard Harrison wrote:
>Ian White, G3SEK wrote:
>"Step 1: I am starting from the fundamental AC current behaviour of an
>ideal inductor."
>
>Good start, but incomplete. Fundamental a-c does not include a
>standing-wave wehich causes a variation of voltage, current, and
>impedance along the length of the inductor whether straight or coiled.

I was going to get back to you about that (but Life intervened), to say that I agree with your entire analysis of standing waves on antennas... except for that one point.

We need to be very clear about the difference between an ideal inductor and any practical inductor. An ideal inductor has only one property: inductance. It does not have length, diameter, self-capacitance, parasitic capacitance or any of the extra properties that a practical coil has. Let's ignore those for the moment, and try to understand how an antenna is loaded by pure inductance alone.

The behaviour of loading inductANCE does not not involve any variation in current between one terminal of the inductance and the other. It cannot, because that is not one of the properties of inductance - not ever, in any circumstances. With a pure loading inductance, the current profile on the antenna has to fit the constraint that the current immediately above the inductance must be equal to the current immediately below it.

In the real-life case this is not necessarily true - but we need to be absolutely clear that any difference in current between the top and bottom of a practical loading coil has to be due to those "extra" properties mentioned above. It is not due to the inductance alone, because inductance alone doesn't do that.

Unless we understand this fundamental point about how an antenna is loaded by pure inductance, we have no hope of understanding how real-life loading coils actually behave.

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

# 677. Re: BPL NOT AOK!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-18 00:31:33 UTC
From: Wes Stewart <n7ws_@_yahoo.com>
Message-ID: <q316n0176s6ks8f3b5mfpvfhnrdtitfe58@4ax.com>
Source record: 88172

On Sun, 17 Oct 2004 16:47:31 -0500, "Dave VanHorn"
<dvanhorn@cedar.net> wrote:

|> And they're going to supply me with high speed Internet over the same
|> wires?
|
|Those 60kV twisted pair lines are on order :)

Could be :)

Back in the 80's, per my specifications, my employer bought some
partial-discharge (corona) test equipment from the James Biddle
Company.

I took a one week long course at their facility on the theory and
practice of partial discharge testing. There were about a dozen
students from various companies in attendance.

One of them was a fellow from Canada who had owned his own cable
manufacturing company, sold it and was then a consultant for the
company. They manufactured HV coaxial cable for power transmission.
I learned that many islands get their power from mainlands via
underwater lines.

Today, coax lines rated to 400 KV are not uncommon. Keep that in mind
if you want to QRO :)

# 678. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-18 00:53:13 UTC
From: John Smith <kd5yikes@mindspring.com>
Message-ID: <ckv45r01qkr@enews1.newsguy.com>
Source record: 88174

"Yuri Blanarovich" <k3bu@aol.comNoUsama> wrote in message
news:20041017171313.27265.00002673@mb-m03.aol.com...
> >Don't overlook the part about disregarding losses and coil radiation.
> >And,
>>don't overlook the part about verifying the current with ammeters. Have
>>you
>>done that?
>>
>>The ARRL book doesn't even recommend using a loading coil with an 8 foot
>>whip on the 10 meter band. Read the whole chapter. Note that your "coil"
>>is
>>7.4% (6.7 degrees) of the antenna system length. It is no longer the
>>lumped
>>device which is assumed in the book. Please repeat your experiment on an
>>8-foot whip at 40 meters and then verify with current meters.
>>
>>If you can still make the same assertions for 40 meters, submit your
>>findings to the ARRL for publication. If they find them worthwhile, I'm
>>sure
>>they will publish them.
>>
>>John
>>
>
> Been there, done it. Check for more story on the subject
> http://www.k3bu.us/loadingcoils.htm
>
> Yuri, K3BU.us

And in which ARRL publication might I find this information?

John

## 679. Re: So, where does one get aluminum tubes for antenna construction?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-18 01:14:11 UTC
From: Al <Al_not_aluminum@al.com>
Message-ID: <417318E2.23A41F9E@al.com>
Source record: 88173

Hi Doug,

http://www.mcmaster.com

McMaster-Carr has massive amounts of just about anything at reasonable prices.

They ship from all over the country, I got my 6' 3/8" al rod next day delivery

for the ground ups ship fee ! (atlanta whse to my qth in tn )

Their website is very fast and works great over dialup or faster connections.

Good luck with the project

Al

Doug wrote:

> I'm looking to make a 2m/70cm yagi antenna for working satellites.
> The plans are out there, and it seems quite simple. (Or I could pay
> $73 to Arrow Antenna, but I'll give it a shot myself first.)

## 680. Here's what some think of BPL

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-18 01:22:52 UTC
From: Mike Coslo <mcoslo@adelphia.net>
Message-ID: <D5ednaKM9Jt0h-7cRVn-uw@adelphia.com>
Source record: 88175

http://www.technewsworld.com/story/37378.html

This fellow pretty much sums up what I think about BPL, except that I don't even give it a chance in rural communities.

BPL is a exceptionally flawed method of DSL level "broadband"

I am surprised that some would think of it as anything even remotely modern. It is old old stuff.

There is only one way that BPL can even remotely start to get off the ground.

That is if the rules are rewritten regarding interference. This will mean that the BPL signal MAY interfere with any other service, and that no other service may interfere with BPL. This would be a complete reversal of part 15.

Won't it be something when all the power companies find they *have* to replace all those old noisy transformers that hams have to end up getting Riley to send them a nastygram for?

The power lines are not particularly clean. lots of loose wires and bad transformers and insulators with problems. THey might not be much of a problem now, but they will be a problem...

Then when the neighbors start using their treadmill and it wipes out the BPL signal?

And hmmm, the rules have been rewritten about those wonderful unlicensed part 15 devices, so I guess that the BPL customer can't do anything about it?

But seriously, BPL will probably suffer an early and quick demise. What I am really worried about is if the part 15 rules are rewritten. Even if the rules were specifically written to exclude BPL (talk about a direct admission of technical inferiority) it will be a foot in the door for other industries that would like to not have to put up those fussy FCC regulations.

- Mike, KB3EIA -

This will be my new tagline:

BPL - a Triumph of Politics over Technology

## 681. Re: Here's what some think of BPL

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-18 01:51:42 UTC
From: Dave VanHorn <dvanhorn@cedar.net>
Message-ID: <p6ednYyOaLoPvO7cRVn-jQ@comcast.com>
Source record: 88176

Get out that ratty old drill, and REV it UP! :)

--
KC6ETE Dave's Engineering Page, www.dvanhorn.org
Microcontroller Consultant, specializing in Atmel AVR

## 682. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-18 02:06:43 UTC
From: k3bu@aol.comNoUsama
Message-ID: <20041017220643.03318.00002254@mb-m17.aol.com>
Source record: 88177

>
>
>And in which ARRL publication might I find this information?
>
>John
>
>

Since 1953 Belrose article in QST, in all ARRL Antenna Books and Handbooks it is shown that current across the loading coil (mobile or loaded antennas) is uniform, while ON4UN Low Band DXing shows and explains it right.

I will have some more samples modeled with EZNEC and one of these days comprehensive article on the subject. Jus' need some free time.

Yuri

## 683. Re: Here's what some think of BPL

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-18 02:09:53 UTC
From: k3bu@aol.comNoUsama
Message-ID: <20041017220953.03318.00002255@mb-m17.aol.com>
Source record: 88178

>
>Get out that ratty old drill, and REV it UP! :)
>

Or get in the kW mobile and drive around while yakidy yak yak :-)

Yuri

## 684. Re: another lie

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-18 02:37:52 UTC
From: chuck <wa7rai@raibeam.com>
Message-ID: <iWFcd.49596$kz3.10789@fed1read02>
Source record: 88179

>Chuck wrote:
>> Roy Lewallen <w7el@eznec.com> wrote in message
>> news:10mrbqpn5n2tg0c@corp.supernews.com...
>>
>
> Because you never furnished that information, I assumed that you had
> acquired it illicitly.
>

I recall (I must take his word for it) that party
informed you of the transfer, while assuring
you that any or all copies were destroyed.

Perhaps you overlooked making a record.
In any case, I'll email his callsign.

>
> > Allowing say 30 days or so for me to
> > prepare an antenna, I invite you to make
> > the arrangements in Tucson - say April -
> > May, 2005 or so - and I will be more
> > than happy to join you there.
> >
> > Is this agreeable?
>
> No, you'll have to make the arrangements.

Considering you are the one insisting on this, I do not
agree to do that. However, I do agree to have the test
fee held in an escrow account set up by my attorney,
but the rest is up tp you.

> The person who pays will have the legal
> right to make the results public. I agree in advance to do so if I pay;
> I expect you to do likewise.

Of course!

Chuck, WA7RAI

>
> Roy Lewallen, W7EL

## 685. Re: I am normally mild and polite...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-18 02:41:23 UTC
From: Mike Coslo <mcoslo@adelphia.net>
Message-ID: <MsedndRFK7PLsO7cRVn-ug@adelphia.com>
Source record: 88180

Roger wrote:

> On Sat, 16 Oct 2004 09:26:08 -0700, "Ed Price" <edprice@cox.net>
> wrote:
>
>
>>"Mike Coslo" <mcoslo@adelphia.net> wrote in message
>>news:dradnYe5RoQT6e3cRVn-2A@adelphia.com...
>>
>>>
>>>Ed Price wrote:
>>>
>>>
>>>>"Fractenna" <fractenna@aol.com> wrote in message
>>>>news:20041015131613.01927.00001336@mb-m23.aol.com...
>>>>
>>
>>SNIP
>>
>
> <snip>
>
>>>Ed, if my understanding is correct, the power companies will indeed be
>>>stringing fiber optic cables. There will be one going right by your house
>>>if you are blessed to live in an bpl blessed neighborhood. THe
>>>infrastructure must be built. I think there is an impression that the
>>>power companies are just going to alligator clip a bpl signal on the lines
>>>at the generating plant.
>
>
> It's my understanding they have to not only run the fiber optic cable,
> but "reclip" it to the power line every mile or so. In the end they
> are basically running a fiber optic feed, but the power line gets it
> into the customer's home or business.

Yup. The Power lines are really great for mushing up a digital signal.
Round off those edges and lotsa reflections. The fiber will be there.

What is the attraction of getting your digital signal on your
powerline? Heck if I had a laptop, it means I have to connect it to the
wall again - unless I run wireless - and then I might as well run wi-fi.

> I'd really like to see a definitive write up on just how the
> infrastructure works and the protocol.
>

> As has been mentioned a number of times, Both Europe and Japan tried
> BPL and gave up. Possibly it'll come back to haunt them, but it
> sounds like they've already found it an unsatisfactory means for high
> speed Internet connections.

The haunting will be on our end, especially if part 15 is rewritten to
accomodate BPL. BPL will fail, but part 15 will go on until it is rewritten.

- Mike KB3EIA -

# 686. Re: So, where does one get aluminum tubes for antenna construction?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-18 02:53:06 UTC
From: Russ <carlzomer@hotmail.com>
Message-ID: <frb6n01d70vnm227c4qqb6dn916a9rhbr5@4ax.com>
Source record: 88181

On Mon, 18 Oct 2004 01:14:11 GMT, Al <Al_not_aluminum@al.com> wrote:

>Hi Doug,
>
>http://www.mcmaster.com
>
>McMaster-Carr has massive amounts of just about anything at reasonable prices.
>
>They ship from all over the country, I got my 6' 3/8" al rod next day delivery
>
>for the ground ups ship fee ! (atlanta whse to my qth in tn )
>
>Their website is very fast and works great over dialup or faster connections.
>
>Good luck with the project
>
>Al
>
>
>
>Doug wrote:
>
>> I'm looking to make a 2m/70cm yagi antenna for working satellites.
>> The plans are out there, and it seems quite simple. (Or I could pay
>> $73 to Arrow Antenna, but I'll give it a shot myself first.)

Texas Towers sells seamless, hard Al tubing in sizes that nest
correctly. It's not flimsy and it's not particularly cheap but it is
the correct material for beam antennae. For small (UHF and up) stuff,
use the hobby shop nesting brass tube and rod.

Russ

## 687. Re: Here's what some think of BPL

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-18 03:12:03 UTC
From: Mike Coslo <mcoslo@adelphia.net>
Message-ID: <HLCdnVNuI9Acqe7cRVn-oA@adelphia.com>
Source record: 88182

Yuri Blanarovich wrote:

>>Get out that ratty old drill, and REV it UP! :)
>>
>
>
> Or get in the kW mobile and drive around while yakidy yak yak :-)

5 Watts will do it! If you are running high power at your home, you'll likely knock out BPL for miles around.

I would never suggest deliberately interfering. It seems as if almost anything will interfere though.

- Mike KB3EIA -

# 688. Re: Thermal and EM images of antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-18 03:18:56 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <q5d6n0571l6cr5lq447j50r39uui0gmhvu@4ax.com>
Source record: 88183

On Sun, 17 Oct 2004 20:36:27 +0200, "Thierry" <-> wrote:
>Fine... That gives already a good idea. Congratulaiton for the job !
>If I can't find thermal versions I 'ld like to use those images. I will
>contact you directly.
>I bookmarked your link.

Hi Thierry,

I got your email. Simply copy the pages to display where you want if
you wish. I am not particular about the vanity of copyright nor
"patent pending." You will note that I also provide both the antenna
designs and mathcad files for free too.

73's
Richard Clark, KB7QHC

## 689. Re: So, where does one get aluminum tubes for antenna construction?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-18 03:19:46 UTC
From: Mike Coslo <mcoslo@adelphia.net>
Message-ID: <UeKdnW0SxrLNq-7cRVn-uw@adelphia.com>
Source record: 88184

aunwin@insightbb.com wrote:

> Dave, buy fishing rod material
> and cover with aluminum foil
> Art

I've tried the Al foil thing, and it is too fragile IMO. The foil fails at the connection points, and the acidic nature of modern rain tends to wreck it otherwise. What I made was destroyed in a couple months. The white gunk that forms on regular tubing over time, and pits it, goes the whole way through Al foil, which I think has only one side! ;^)

On this subject, has anyone tried that aluminum tape? That stuff is a bit thicker, and the wider stuff might have nice BW qualities, as well as be pretty stealthy.

- Mike KB3EIA -

## 690. Re: So, where does one get aluminum tubes for antenna construction?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-18 03:29:49 UTC
From: Herbert Khaury <tiptoe@tulip.me>
Message-ID: <25KdnWJ7v8czpe7cRVn-hQ@comcast.com>
Source record: 88185

The secret is: "arrow" antennas are made from arrows. Yes, archery arrows.
The hardware that attaches the arrows to the boom is (again) arrow hardware,
that's used for mounting certain types of arrowheads to the arrow shafts.

--

"Doug McLaren" <dougmc@frenzy.com> wrote in message
news:swxcd.14048$Rf4.6903@fe2.texas.rr.com...
> I'm looking to make a 2m/70cm yagi antenna for working satellites.
> The plans are out there, and it seems quite simple. (Or I could pay
> $73 to Arrow Antenna, but I'll give it a shot myself first.)
>

## 691. Re: Thermal and EM images of antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-18 03:33:15 UTC
From: Mike Coslo <mcoslo@adelphia.net>
Message-ID: <Ot6dnbUsN_zkpO7cRVn-hg@adelphia.com>
Source record: 88186

Thierry wrote:

> "Wes Stewart" <n7ws_@_yahoo.com> wrote in message
> news:as55n0pcegok1kp45h2ao6auo4fbrqvnlm@4ax.com...
>
>>On Sun, 17 Oct 2004 14:27:31 +0200, "Thierry" <-> wrote:
>>
>>|Hi,
>>|
>>|To illustrate technical articles about EM radiations, I' m searching for
>>|thermal images of antennas during transmission ?
>>|Images showing the EM field is welcome too (not radiation pattern but
>>|measured in situ and transposed in false colors)
>>|
>>|Any URL to suggest ?
>>
>>Sure just buy a copy of this:
>>
>>http://www.ansoft.com/products/hf/hfss/
>>
>
>
> Yes, I know. But I 'm short of money currently :-((

Oy, seems anything will turn into a fight, these days! 8^)

Here is what I suggest as a low tech and perhaps a bit silly solution.

Get a number of aquarium temperature sensors. these are the liquid
crystal type that is put on the outside of the tank, with the
temperature indicated by color change. Place on the antenna with the
number of stickers chosen by your desired resolution.

Experiments should be run on a calm day, and ideally at the same
temperature (although you can calculate for the differences) each time.

Transmit, and check, record, and enter into a program that can map the
results for you, or map it out manually.

Binoculars may be needed to see the tape!

This is not as glamorous as a thermal imaging camera, which would have
it's own set of problems, but it should work, and be quite inexpensive,
requiring only more time on your part.

# 692. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-18 03:40:43 UTC
From: John Smith <kd5yikes@mindspring.com>
Message-ID: <ckvdvu01omc@enews4.newsguy.com>
Source record: 88188

"Yuri Blanarovich" <k3bu@aol.comNoUsama> wrote in message
news:20041017220643.03318.00002254@mb-m17.aol.com...
> >
>>
>>And in which ARRL publication might I find this information?
>>
>>John
>>
>>
>
> Since 1953 Belrose article in QST, in all ARRL Antenna Books and Handbooks
> it
> is shown that current across the loading coil (mobile or loaded antennas)
> is
> uniform, while ON4UN Low Band DXing shows and explains it right.
>
> I will have some more samples modeled with EZNEC and one of these days
> comprehensive article on the subject. Jus' need some free time.
>
> Yuri

No, I meant in which ARRL publication can I find either ON4UN's or your
article correcting the last 50 years of "misinformation?"

John

# 693. Re: So, where does one get aluminum tubes for antenna construction?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-18 03:50:52 UTC
From: W4KMA <nospam@nospam.net>
Message-ID: <vbf6n01qj1u9a6lcifgbd65sn080p5fo6c@4ax.com>
Source record: 88187

Another approach you may want to take is the Arrow Antenna concept,
but built of WA5VJB's Cheap Yagis. Cheap Yagis work great and have
simple tuning requirements. I did a Google search and came up with
someone who had done exactly this.
http://www.g6lvb.com/HomebrewArrow.htm
There is a link in the article to a page with Cheap Yagi dimensions.

A somewhat smaller antenna is a combination of a Yagi (although you
could easily use the Cheap Yagi design) and a Moxon.
http://www.qsl.net/vk3jed/2m70cmant1html.html

http://on6sat.com/links/ is an extensive list of links related to
satellite operation, with lots of antenna links.

Good luck
W4KMA

On Sun, 17 Oct 2004 16:58:00 GMT, "Doug McLaren" <dougmc@frenzy.com>
wrote:

>I'm looking to make a 2m/70cm yagi antenna for working satellites.
>The plans are out there, and it seems quite simple. (Or I could pay
>$73 to Arrow Antenna, but I'll give it a shot myself first.)
>
>So I hit Home Depot, and the closest thing I found to the approprite
>beams was 1/8th inch steel rods. (Basically piano wire.)
>
>It ought to work, and is stiff enough to not bend much under gravity,
>but it's heavy, and I'll be holding this thing ...
>
>The local hobby shop has more piano wire that's smaller, but it's
>still steel, and as you get smaller, it looses the needed rigidity and
>it sags too much.
>
>The instructions suggest hollow alluminum tubes, which should be light
>and strong, and a good conductor to boot, but where can I find these?
>
>Also, I've seen Yagi instructions that suggest a that the beams not be
>insulated from the boom, and I've seen instructions that say they
>should be insulated from the boom (or the boom should be an insulator,
>like PVC pipe.) Does it make a big difference? Does it affect the
>dimensions of the antenna?
>
>Thanks in advance ...

## 694. Re: another lie

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-18 04:13:14 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10n6gmud0qalf27@corp.supernews.com>
Source record: 88189

I'm not at all insisting on your testing your antenna -- I have no need to. NEC-2 and EZNEC are perfectly capable of accurately modeling it, and accurately show the gain and pattern it will have in practice. Its operation is simple and easily understandable. I'm entirely satisfied that I understand how it works and what its performance is.

My offer, which I think was generous, was to pay the bill if a test showed your antenna to meet the claims you made. I'm not offering to test your antenna for you. You've once again chosen to fall back on your back yard test and creative pseudo-scientific theory to explain the claims you've made, rather than to show the world, at no expense to you, that the claims are valid. That's up to you. I'm not obligated to disprove your extraordinary claims.

Roy Lewallen, W7EL

chuck wrote:
>>Chuck wrote:
>>
>>>Roy Lewallen <w7el@eznec.com> wrote in message
>>>news:10mrbqpn5n2tg0c@corp.supernews.com...
>>>
>>
>>Because you never furnished that information, I assumed that you had
>>acquired it illicitly.
>>
>
>
> I recall (I must take his word for it) that party
> informed you of the transfer, while assuring
> you that any or all copies were destroyed.
>
> Perhaps you overlooked making a record.
> In any case, I'll email his callsign.
>
>
>>>Allowing say 30 days or so for me to
>>>prepare an antenna, I invite you to make
>>>the arrangements in Tucson - say April -
>>>May, 2005 or so - and I will be more
>>>than happy to join you there.
>>>
>>>Is this agreeable?
>>
>>No, you'll have to make the arrangements.

>
>
> Considering you are the one insisting on this, I do not
> agree to do that. However, I do agree to have the test
> fee held in an escrow account set up by my attorney,
> but the rest is up tp you.
>
>
>
>>The person who pays will have the legal
>>right to make the results public. I agree in advance to do so if I pay;
>>I expect you to do likewise.
>
>
> Of course!
>
> Chuck, WA7RAI
>
>
>>Roy Lewallen, W7EL

## 695. Re: Another lie...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-18 04:24:39 UTC
From: richardharrison@webtv.net
Message-ID: <12235-41734587-153@storefull-3255.bay.webtv.net>
Source record: 88190

Ian White, G3SEK wrote:
"The behaviour of loading inductANCE does not involve any variation in current between one terminal of the inductance and the other."

Yuri has attached a photo in this thread again of an antenna loading coil in action as a psrt of a too-short vertical antenna. RF ammeters are mounted in series, one at the coil top and one at the coil bottom. The lower ammeter clearly shows more current than the upper. That`s exactly as should be expected.

The too-short whip above the coil has an impedance consisting of a high capacitive reactance and a few ohms of radiation resistance. It`s the coil`s job to cancel the capacitive reactance so it doesn`t oppose current into the too-short whip.

Pure inductance alone can cancel pure capacitive reaxctance.

In an antenna loading coil as used in a "Texas Bug Catcher", the coil resides about in the middle of the antenna. The coil has length and current, the two factors which produce radiation.

The Bug Catcher is approximately a 90-degree antenna, including the phase delay in the loading coil/. ON4UN shows in Fig 9-22 on page 9-15 of "Low=Band DXing", a center-loading example which may represent the Bug Catcher

The current taper shown by ON4UN is similar to that shown by other authors deliberately and unmistakenly.

A pure series inductance invokes a phase lag. This would be 90-degrees in a pure inductance but we always have some resistance which reduces the phase lag to less than 90-degrees.

In olden times, chokes were often called "retard coils".

Best regards, Richard Harrison, KB5WZI

## 696. Re: Another lie...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-18 04:57:11 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <obi6n09is0peq74scl8p62gt42mreofbt9@4ax.com>
Source record: 88191

On Sun, 17 Oct 2004 23:24:39 -0500, richardharrison@webtv.net (Richard Harrison) wrote:

>The lower ammeter clearly shows more current than the upper. That`s >exactly as should be expected.

Hi Richard,

And it is EXACTLY how it is forecasted through modeling. The real story here is how to mis-use modeling to contrive a different answer to this shaggy dog story.

The last gasp through this stale wheeze had us waiting for the snows to melt so Yuri could replicate the measurements of fish tank thermometers - as the skies darken yet again for another winter's snow, how long will this take to resolve? NOTHING new has been added to the subject and it seems this discussion has devolved to the level of a bunch of hoary denizens sitting around the fire and spitting into it for entertainment.

73's
Richard Clark, KB7QHC

## 697. Re: Fractenna lashes out at hams using BPL

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-18 05:48:02 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0410172148.6821edc@posting.google.com>
Source record: 88192

fractenna@aol.com (Fractenna) wrote in message
>
> I work with hams and have hams on my board. And, of course, I am a ham. There
> is no 'weapon'.

Too bad...I'm a ham, and I have a shotgun within arms reach...I sleep
better at night knowing that...
>
> The issue is the following:
>
> Does ham radio accept the wireless /telecom revolution, or does it live in the
> past?

I'd rather live in the past, than live with digital spew across the hf
spectrum.
>
> Dual use of spectrum with the proper guidelines and thoughtful restrictions is
> the way to go, so that millions of folks can share in this evolving radio
> landscape. BPL will be only one of many adopted technologies in this mix.

Dual use....Right....
>
> What's happened is that a very few vocal hams have gone totally ballistic and
> used any and all tactics possible to try to kill a new technology called BPL.

Good for them....
>
> My point is that those of us who dissent (relative to those such as yourself)
> on this matter , and in fact we have a logical, rational, and objective view,
> should have our opportunity to voice our opinion as well.

I've read that about three times, and it still doesn't really make any
sense...

> The few radical hams who have tried to represent radio amateurs in the United
> States as a whole, do not,in fact, represent that body.

The ARRL is composed of only radical, ballistic, troublemakers? Damn,
maybe I should apply for a membership after all....
>
> The FCC must represent the people of the United States, and more specifically
> in this case, the WHOLE radio amateur service.

They screwed the pooch on this issue, if they have the WHOLE radio
amateur service in mind...Not to mention, others live there also..."HF
spectrum"
>

> They watch out and do what's best for the SERVICE--not a few very vocal hams.

Bullcrap....They do whatever the big money dictates...And maybe who
can bend over the farthest....Whoever ramrodded this BPL crap through,
probably needs a jar of vasoline...
>
> I think the latest modifications to Part 15 are a brilliant roadmap to allowing
> new technologies to be a viable dual user of spectrum with licensed services.

I've got news for you. Dual use of the HF spectrum, with the exception
of SS, will never work. I think the new modifications are a primetime
cluster#$%@ of ignorance.

> That includes the BPL use of the HF spectrum.

That means BPL most likely taking over the HF spectrum...It will
become so trashed with digital spew, no one else would want to use it.
>

>
> Obviously there will be some markets where BPL does well, and others where it
> won't.
>
> But for a few vocal hams to try to kill a new technology only focuses the
> spotlight back on us, as, in fact, it has this past Summer and Spring (for
> example, the front page Wall Street Journal article). And that focus makes us
> look antiquated and silly to the outside world.

Again, pure crap. I read the letter from one of the powerline
empiretts...
She made herself look silly to the outside world, due to all the
blatant misconceptions she had about hams...IE: most still use tube
gear, most are inbred CB wannabees, etc...You should read the letter I
sent her. I gave her a complete front end alignment free of charge. So
did about 15,000 other hams I think. Some, who were VERY up to date on
BPL technology. Hams are not against new technology. Hams are against
it sharing the same frequencies as an existing technology. There is no
good reason for it. AT ALL!
>
> I don't feel (and am not) antiquated and silly. Are you?

You may not be antiquated, but you are without a doubt, one of the
silliest bastards I've ever come across on usenet. You can take that
any way you want...
I'm sure many will back me up on this conclusion.
>
> Hams need to move ahead--not just anecdotally-- with new modes and
> technologies. There is HUGE resistance to that, and the world has and is
> passing us by.

Pure and simple horsecrap...BPL is *NOT* an amateur radio related
endeavour.
We do NOT need non amateur radio endeavours, and the resulting digital

spew, in *OUR* amateur bands.
>
> I think this is very sad, and I cannot condone that.

Another day, another $2.31... Next...
>
> So this is how one very informed radio amateur feels.

That statement is open to further debate....MK

## 698. Re: Fractenna lashes out at hams using BPL

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-18 05:51:27 UTC
From: sideband <AINO8SPAMW@cac.net>
Message-ID: <zRIcd.15376$176.11222@newssvr31.news.prodigy.com>
Source record: 88193

Don't forget, he's STILL not giving straight answers to the questions
posed to him, nor providing independent sources for verification of
his answers.

-SSB

jj wrote:

> He and his fractal antenna crap have been ridiculed so much on this
> forum (rightly so)
> that he feels compelled to use the BPL issue against fellow hams as a
> weapon.

## 699. Re: I am normally mild and polite...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-18 06:52:13 UTC
From: Roger <Delete-Invallid.stuff.groups@tm.net>
Message-ID: <fsp6n0toehuiqbn4treau9o0l6usumulv3@4ax.com>
Source record: 88194

On 15 Oct 2004 22:57:29 GMT, fractenna@aol.com (Fractenna) wrote:

>>BPL is simply a poor technical solution, and is an interim communications
>>step that should be bypassed.
>
>Why wait? People have things to say and see right now.
>
>Ultimately, all telecom systems transition. BPL has the good fortune of having
>an infrastructure and a need right now; tomorrow; and for some time to come.
>
>Seize the day! Solve a pressing problem. BPL looks very promising.

That is not exactly what the Technology News has to say
http://www.technewsworld.com/story/37378.html
They basically say it doesn't look promising as a business model and
the infrastructure isn't in place to use it yet, except for a few test
sites. It's inefficient, expensive to install, and is least likely to
serve the sparsely settled rural areas for which it's being touted.

Roger Halstead (K8RI & ARRL life member)
(N833R, S# CD-2 Worlds oldest Debonair)
www.rogerhalstead.com
>
>73,
>Chip N1IR
>

## 700. Re: logper

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-18 07:21:30 UTC
From: samsvl@nlr.nl
Message-ID: <Xns95865F333C08samsvlnlrnl@137.17.128.14>
Source record: 88195

"lem" <lemmy@pen.nl> wrote in
news:41701c9c$0$37789$e4fe514c@news.xs4all.nl:

> who has buildingplans of a logperiodical antenna for vhf-uhf -svhf
> made on printboard.
> sorry for bad english.
Hi,

http://cgi.ebay.nl/ws/eBayISAPI.dll?ViewItem&category=1502&item=5725248394
&rd=1

Sam

## 701. Re: Fractenna lashes out at hams using BPL

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-18 09:43:03 UTC
From: Mark <bigfathhairybiker@MAILhot.com>
Message-ID: <41738f02$0$29078$ed9e5944@reading.news.pipex.net>
Source record: 88196

You know what the trouble is with us amateurs is ?

We are stuck in the analogue age... We should all be using digital
communications by now..

Wasn't there a time when amateurs were ahead of commercial design?

Now all we do is complain when the commercial world brings out new
technology that
causes a problem with our old technology.

Look at the big picture people... We are still using analogue
communications..
Blimey , even my home phone is digital. My CD player is digital, my TV is
digital.

That's my 2 pence worth ( about 4 cents... )

## 702. Re: logper

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-18 10:04:50 UTC
From: lem <lemmy@pen.nl>
Message-ID: <41739548$0$25965$e4fe514c@news.xs4all.nl>
Source record: 88197

bedankt sam ik ga er eens kijken.

"Sam Storm van Leeuwen" <samsvl@nlr.nl> schreef in bericht
news:Xns95865F333C08samsvlnlrnl@137.17.128.14...
> "lem" <lemmy@pen.nl> wrote in
> news:41701c9c$0$37789$e4fe514c@news.xs4all.nl:
>
> > > who has buildingplans of a logperiodical antenna for vhf-uhf -svhf
> > > made on printboard.
> > > sorry for bad english.
> > Hi,
>
> http://cgi.ebay.nl/ws/eBayISAPI.dll?ViewItem&category=1502&item=5725248394
> &rd=1
>
> Sam
>

## 703. Re: Fractenna lashes out at hams using BPL

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-18 10:49:19 UTC
From: fractenna@aol.com
Message-ID: <20041018064919.09094.00001888@mb-m21.aol.com>
Source record: 88198

>Don't forget, he's STILL not giving straight answers to the questions
>posed to him, nor providing independent sources for verification of
>his answers.
>
>-SSB

Chris,

It is important that you express care when making statements that are false.

It's quite OK with me if you take a strong tone or attitude. It's not in your best interest, however, to posit things in a false light for the sake of taking things over the top against me as an individual.

You seem to have concerns about fractal antennas, which I have been forthcoming about and dead honest.

I have no continued interest in 'defending' fractal antennas in this forum, for the simple reason that the technology and the science are proven, accepted, and well beyond this point.

You asked me about a specific design, and I provided you the info.

I also provided you info on how it was tested, but you chose not to accept that info.

That's all there is, Chris.

Now, be the nice guy you are and don't seek to be a defamer or propagandist.

As for BPL, it would be wonderful if all the (few) uppity hams upset with BPL could target an individual to accomplish their goal. The reality is that the battle is lost, for the simple reason that there is no battle, and attacking me only, apparently makes ham radio look bad in general; IMO.

I am not the only one who feels, or notices, how backward we are as a group of communicators from a applied use of technology viewpoint. We need to understand that HF communications needs to be advanced by hams AS hams, and not revered in the same mold from 1967.

BPL will now be decided in the marketplace, not the histrionic hyperbole of a few hams. Accept it.

I hope you will agree with me that this was always the case, but a few emboldened amateurs failed to grasp that reality.

Have a pleasant day.

73,
Chip N1IR

# 704. Re: I am normally mild and polite...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-18 10:52:48 UTC
From: fractenna@aol.com
Message-ID: <20041018065248.09094.00001889@mb-m21.aol.com>
Source record: 88199

>
>
>
>Fractenna wrote:
>
>> Dear OM,
>>
>> I am sorry that you take personal offense; I will be happy to state why
>this
>> was posted:
>>
>> 1) it has been an ongoing topic on this NG for a long time, and now we have
>> final resolution;
>
>Final resolution? Not even close. Part 15 still needs to be rewritten.
>
>> 2) I did not expect nor require anyone to respond, ergo the 'troll factor'
>is
>> not an issue;
>> 3) The FCC has taken careful and measured steps to assure that US amateurs
>> remain with the enjoyment of the HF bands, given the sharing of spectrum
>with
>> BPL.
>> 4)It is the very best scenario for all involved. That is definitely worth
>> gloating over.
>
>It isn't all about the amateurs.
>
>There is money to be made. Equipment to build, systems to map out and
>fiber to run. And in the end, when BPL fails, there will be class action
>lawsuits. But in the interim, there was money to be made.
>
> We don't have to worry about gloating, or Hams or whatever. Too much of

>the existing infrastructure will interfere with BPL. The power companies
>will have to repair this infrastructure, which many are loathe to do
>(see F.C.C. enforcement actions) Too many places that will support BPL
>at a profit are already served by faster and more reliable systems. And
>the rural areas, which BPL was supposed to service admirably, don't have
>the population density to run that fiber to.
>
> It isn't the Hams, it is poor technology coupled with a bad business
model.
>

> Now if someone wanted to run fiber past my house, and allow me access
>to it at what I'm paying now for cable.... *then* I'd be interested!
>
> - Mike KB3EIA -
>
Hi Mike,

Although I disagree with you, it's nice to see thoughtful arguments, as opposed to 'let's kill the technology' diatribes.

73,
Chip N1IR

## 705. Re: I am normally mild and polite...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-18 10:59:36 UTC
From: fractenna@aol.com
Message-ID: <20041018065936.09094.00001890@mb-m21.aol.com>
Source record: 88200

>That is not exactly what the Technology News has to say
>http://www.technewsworld.com/story/37378.html
>They basically say it doesn't look promising as a business model and
>the infrastructure isn't in place to use it yet, except for a few test
>sites. It's inefficient, expensive to install, and is least likely to
>serve the sparsely settled rural areas for which it's being touted.
>
>Roger Halstead (K8RI & ARRL life member)
>(N833R, S# CD-2 Worlds oldest Debonair)
>www.rogerhalstead.com
>>
>>73,
>>Chip N1IR
>>

If all the consultants had got info right--especially the ones who love to talk in the press-- then you and I would probably be using technologies that died miserably, which they touted as god's gift..

It's a big market and there are lots of ways to play. BPL has a good shot and will undoubtedly have a worthwhile niche.

As someone who deals with business cases--daily--I find it suddenly amusing that many hams--present company aside-- think they know anything much about it. I can't wait to hear conversations on 75M about 'entry barriers' and 'crossing the chasm' and 'risk management'. Sure beats 'how's the weather?'

73,
Chip N1IR

## 706. Re: So, where does one get aluminum tubes for antenna construction?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-18 11:00:04 UTC
From: "Larry Gauthier (K8UT)" <MyCallsign@ARRL.NET>
Message-ID: <10n78hootkq54c5@corp.supernews.com>
Source record: 88201

My local hardware store, a chain of the "Do It Center" hardware franchise,
has just started carrying aluminum tubing in 6 foot lengths in diameters
ranging from about 3/8" to about 1.5". Prices are not cheap, but not
outrageous for the small amounts you will likely need.

--
-larry
K8UT
"Doug McLaren" <dougmc@frenzy.com> wrote in message
news:swxcd.14048$Rf4.6903@fe2.texas.rr.com...
> I'm looking to make a 2m/70cm yagi antenna for working satellites.
> The plans are out there, and it seems quite simple. (Or I could pay
> $73 to Arrow Antenna, but I'll give it a shot myself first.)
>
> So I hit Home Depot, and the closest thing I found to the approprite
> beams was 1/8th inch steel rods. (Basically piano wire.)
>
> It ought to work, and is stiff enough to not bend much under gravity,
> but it's heavy, and I'll be holding this thing ...
>
> The local hobby shop has more piano wire that's smaller, but it's
> still steel, and as you get smaller, it looses the needed rigidity and
> it sags too much.
>
> The instructions suggest hollow alluminum tubes, which should be light
> and strong, and a good conductor to boot, but where can I find these?
>
> Also, I've seen Yagi instructions that suggest a that the beams not be
> insulated from the boom, and I've seen instructions that say they
> should be insulated from the boom (or the boom should be an insulator,
> like PVC pipe.) Does it make a big difference? Does it affect the
> dimensions of the antenna?
>
> Thanks in advance ...
>
> --
> Doug McLaren, dougmc@frenzy.com, AD5RH
> The face is familiar but i can't quite remember my name. Oh, there it is.

# 707. Re: Fractenna lashes out at hams using BPL

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-18 12:05:00 UTC
From: sideband <AINO8SPAMW@cac.net>
Message-ID: <MjOcd.10266$456.663@newssvr16.news.prodigy.com>
Source record: 88202

I made no false statements.

You did, indeed, provide the "data", but you never answered when I asked you for contact information for the range that performed the tests, or a website not owned or run by your "company" which can verify the figures you gave.

I can type out db gains off the cuff, too..

The fact is you didn't respond to that question.

You also didn't respond to the question about who had so much information on me. You got the callsign right. You have internet access. You know where to go to look up a HAM's email address, if they have one. You apparently refuse to understand why someone wouldn't put their real email address on usenet. And finally, you apparently refuse to take the steps necessary to accurately and completely answer questions posed to you, without evasion of any sort.

So where's the lie?

-SSB

Fractenna wrote:

>>Don't forget, he's STILL not giving straight answers to the questions
>>posed to him, nor providing independent sources for verification of
>>his answers.
>>
>>-SSB
>
>
> Chris,
>
> It is important that you express care when making statements that are false.
>
> It's quite OK with me if you take a strong tone or attitude. It's not in your
> best interest, however, to posit things in a false light for the sake of taking
> things over the top against me as an individual.
>
> You seem to have concerns about fractal antennas, which I have been forthcoming
> about and dead honest.
>
> I have no continued interest in 'defending' fractal antennas in this forum, for
> the simple reason that the technology and the science are proven, accepted, and
> well beyond this point.
>

> You asked me about a specific design, and I provided you the info.
>
> I also provided you info on how it was tested, but you chose not to accept that
> info.
>
> That's all there is, Chris.
>
> Now, be the nice guy you are and don't seek to be a defamer or propagandist.
>
> As for BPL, it would be wonderful if all the (few) uppity hams upset with BPL
> could target an individual to accomplish their goal. The reality is that the
> battle is lost, for the simple reason that there is no battle, and attacking me
> only, apparently makes ham radio look bad in general; IMO.
>
> I am not the only one who feels, or notices, how backward we are as a group of
> communicators from a applied use of technology viewpoint. We need to understand
> that HF communications needs to be advanced by hams AS hams, and not revered
> in the same mold from 1967.
>
> BPL will now be decided in the marketplace, not the histrionic hyperbole of a
> few hams. Accept it.
>
> I hope you will agree with me that this was always the case, but a few
> emboldened amateurs failed to grasp that reality.
>
> Have a pleasant day.
>
> 73,
> Chip N1IR

## 708. Re: Another lie...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-18 12:42:04 UTC
From: richardharrison@webtv.net
Message-ID: <13715-4173BA1C-237@storefull-3251.bay.webtv.net>
Source record: 88204

Richard Clark wrote:
"And it is EXACTLY how it is forcasted through modeling."

Yuri, K3BU has declared victory in the "current drop" argument. It`s in a new thread: "Current in loading coil, EZNEC-helix", after measuring current in and out of a loading coil again.

I am reassured when math and models agree with measurements.

Best regards, Richard Harrison, KB5WZI

## 709. Re: Fractenna lashes out at hams using BPL

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-18 12:44:53 UTC
From: fractenna@aol.com
Message-ID: <20041018084453.09844.00001385@mb-m19.aol.com>
Source record: 88203

>I made no false statements.

Yes sir, you did.

73,
Chip N1IR

## 710. Why?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-18 14:31:41 UTC
From: Ken Bessler <kg0wx@NOSPAMyahoo.com>
Message-ID: <2ti2duF1vu2hhU1@uni-berlin.de>
Source record: 88205

Can anyone tell me why I get a worse SWR at
100w than at 5w? I know the reflected power
goes up but I'm using a cross needle meter here
so I'm referring to the actual ratio.

Which SWR should I trust?

Ken

## 711. Re: Why?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-18 15:15:40 UTC
From: Dave <noone@nowhere.com>
Message-ID: <U62dnQwaIv2-Q-7cRVn-hQ@crocker.com>
Source record: 88206

three possible reasons..

the meter is not as accurate at low power levels. this is common on meters driven by line power. below some level the simple diode rectifier just doesn't drive the meter movement, since this usually happens on the reflected side first due to the lower voltage the readings can't be trusted at low swr's or low power levels.

the other possibility is that you have something breaking down causing a change in swr. while this is unlikely at only 100w, it is possible. this would normally cause a sudden jump in swr as power is increased and often results in erratic indications.

and lastly, the transmitter is poorly adjusted. as power is increased you may be generating more harmonic content. if the antenna reflects the harmonics back they can add to the swr. this is often seen in tube finals or high power amps, when being tuned the swr reading after the amp changes as the tune/load controls are adjusted, even if the power indicated stays constant.

"Ken Bessler" <kg0wx@NOSPAMyahoo.com> wrote in message
news:2ti2duF1vu2hhU1@uni-berlin.de...
> Can anyone tell me why I get a worse SWR at
> 100w than at 5w? I know the reflected power
> goes up but I'm using a cross needle meter here
> so I'm referring to the actual ratio.
>
> Which SWR should I trust?
>
> Ken
>
>
>

# 712. Re: Thermal and EM images of antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-18 15:26:24 UTC
From: Thierry <->
Message-ID: <4173e0a1$1@news.vo.lu>
Source record: 88207

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:q5d6n0571l6cr5lq447j50r39uui0gmhvu@4ax.com...
> On Sun, 17 Oct 2004 20:36:27 +0200, "Thierry" <-> wrote:
> >Fine... That gives already a good idea. Congratulaiton for the job !
> >If I can't find thermal versions I 'ld like to use those images. I will
> >contact you directly.
> >I bookmarked your link.
>
> Hi Thierry,
>
> I got your email. Simply copy the pages to display where you want if
> you wish. I am not particular about the vanity of copyright nor
> "patent pending." You will note that I also provide both the antenna
> designs and mathcad files for free too.
>

Thanks for sharing ;-)
73
Thierry, ON4SKY

> 73's
> Richard Clark, KB7QHC

## 713. Re: Another lie...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-18 15:33:38 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <mnRcd.15081$nj.8524@newssvr13.news.prodigy.com>
Source record: 88208

Richard Harrison wrote:
> Richard Clark wrote:
> "And it is EXACTLY how it is forcasted through modeling."
>
> Yuri, K3BU has declared victory in the "current drop" argument. It`s in
> a new thread: "Current in loading coil, EZNEC-helix", after measuring
> current in and out of a loading coil again.
>
> I am reassured when math and models agree with measurements.
>
> Best regards, Richard Harrison, KB5WZI
>

There is no such thing as a "current drop." As for Yuri declaring victory, that's easy enough to do since the person he's declaring victory over, Tom Rauch, isn't bothering to refute him on this newsgroup.
73,
Tom Donaly, KA6RUH

# 714. Re: Fractenna lashes out at hams using BPL

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-18 15:36:34 UTC
From: sideband <AINO8SPAMW@cac.net>
Message-ID: <6qRcd.18565$Qv5.16896@newssvr33.news.prodigy.com>
Source record: 88209

Back that statement up, with evidence.

You've made the accusation, now prove it. Innocent until proven guilty, and all that.

If (and when) you can't. I'll accept your apology.

-SSB

Fractenna wrote:

>>I made no false statements.
>
>
> Yes sir, you did.
>
> 73,
> Chip N1IR

## 715. Re: Fractenna lashes out at hams using BPL

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-18 15:43:17 UTC
From: Dave VanHorn <dvanhorn@cedar.net>
Message-ID: <B7ydnRCDDefpee7cRVn-ug@comcast.com>
Source record: 88210

Then again, the regs and band plans have us bound up pretty tightly.
Not a whole lot of room left to experiement with modulation schemes.

Antennas are still wide open, but it seems a lot like aerodynamics, all the
good work was done in wwII, and not much progress since, except for tweaks.

--
KC6ETE Dave's Engineering Page, www.dvanhorn.org
Microcontroller Consultant, specializing in Atmel AVR

## 716. Re: Fractenna lashes out at hams using BPL

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-18 15:45:25 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <6dn7n01tlpm3of4vt1np92qvs3oe7m7e5p@4ax.com>
Source record: 88211

On Mon, 18 Oct 2004 10:43:03 +0100, "Mark"
<bigfathhairybiker@MAILhot(swapemround).com> wrote:

>You know what the trouble is with us amateurs is ?

Hi Mike,

Sure, some of them don't know what "digital" is, your posting contains examples which follow below.

>We are stuck in the analogue age... We should all be using digital
>communications by now..

As an isolated statement that is true. There are more modulation modes now than there were 20, 30, 40, 50 years ago, and many of them are digital based - BPL is baseband, not modulation, however I will let that pass for further discussion.

There are also digitally based methods of generating an RF frequency of a purity that exceeds all the current Ham radio equipment commercially available, but those methods are not widebanded trash generators. Clearly, digital methods are not necessarily interfering methods - except in the hands of commercial interests with less than amateur talent in marketing dominating their engineer's efforts.

>Wasn't there a time when amateurs were ahead of commercial design?

This is called being stuck in the time warp of 1928 innovation and WWII's need to draft both the Ham and his transmitter because of a shortfall of equipment. Since then, except for rare achievements like exploring Spread Spectrum (which the FCC hamstrung) it has been follow the market.

The Amateur community is not about being a class of inventors, but rather a resource pool of savvy and experienced technicians and engineers who could be relied upon to reign in the self-interests of decadent commercialism. This dialogue is one clear and obvious example of both that talent's exercise, and the stonewalling of a crypto-fascist administration.

>Now all we do is complain when the commercial world brings out new
>technology that causes a problem with our old technology.

I presume by the inclusive nature of "we" that you are against new technology? If not, then your argument contains its own self-negation. If so, then your argument is what psychology calls "projection" WE do not necessarily share YOUR problem.

>Look at the big picture people... We are still using analogue
>communications..
>Blimey , even my home phone is digital. My CD player is digital, my TV is
>digital.

And in this last statement, "we" find your poor understanding of the problem in general, and the concept of what digital is, in particular.

Your TV is analogue even if your remote tuner is digital. Even there, your remote tuner is not digital, it is CW (albeit with a different code set). CW is one of the oldest modes around. That IR beam that communicates with your big bottle across the room sends a chopped light beam that is in now way OCTAL nor HEXIDECIMAL but closer to Baudot. This is about as close to "digital" as you are in the living room, and Amateur equipment has had this advantage for quite a long time now (Baudot has been with amateur service for at least 60 years).

As for your home phone or CD player, if you have any impression that you are actually listening to "digital" you are indeed the product of genetic manipulation and should rush a sample of your DNA to the nearest patent office to claim your birthright is actually intellectual property.

Again, any "digital" property found in these commonplace AND LINEAR devices is and has been found in Amateur equipment for a very long time now. If this is news to you, you can then appreciate your unique problem of "projecting" your lack of understanding on others and calling them out for being against technology.

73's
Richard Clark, KB7QHC

## 717. Re: Why?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-18 15:49:14 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <f8p7n0pm3ovpibihf2f4f8aoi0inlb557t@4ax.com>
Source record: 88212

On Mon, 18 Oct 2004 09:31:41 -0500, "Ken Bessler"
<kg0wx@NOSPAMyahoo.com> wrote:
>Which SWR should I trust?

Hi Ken,

The reading at the power you intend to use. Lower powers have
problems of scale linearity and poor accuracy; however, low powers
have very little to do with actual damage that may follow from SWR.

73's
Richard Clark, KB7QHC

## 718. Re: Gain per unit length of boom

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-18 16:00:10 UTC
From: Jimmie <Gfender@carolina.rr.com>
Message-ID: <eMRcd.66272$ci3.3918146@twister.southeast.rr.com>
Source record: 88213

"aunwin@insightbb.com" <aunwin@insightbb.com@insightbb.com> wrote in message news:xOzcd.263953$D%.243703@attbi_s51...
> My ARRL books go back a decade or more
> and the graph showing gain per boom length
> has several curves based on different measurements
> e.t.c. Has a graph been made based solely on NEC
> program findings over say a perfect ground and at a uniform height?
> Art
>
>
They probably have been done but there will not be much difference between them and the ARRL graphs. Its been long known how to calculate antenna gain, computers just take the teadous labor out of it.

## 719. Re: "Sharing" with BPL

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-18 16:04:31 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <gdp7n0hgj8ltj4tmoc1jgsebm0dmgi350d@4ax.com>
Source record: 88214

On 18 Oct 2004 05:59:20 -0700, k4wge@arrl.net (k4wge) wrote:
>What spectrum is to be shared? The BPL advocates are asking the FCC to
>relax radiation limits. How is that sharing?

We have access to every OTHER Hertz in bandwidth across the spectrum.
Half for us, half for them. Just don't expect all (or significant
portion) of your half in any one place - that just wouldn't be fair
now, would it?

Keep in mind, this is the kinder, gentler compassion we've been
promised and by all CIA investigations into the matter, they've been
overwhelmingly successful (please don't ask for documentation).

# 720. Re: Giant Cu Cactus antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-18 16:06:46 UTC
From: Jimmie <Gfender@carolina.rr.com>
Message-ID: <qSRcd.66273$ci3.3918729@twister.southeast.rr.com>
Source record: 88215

"Bruce H. McIntosh" <scotsman@afn.org> wrote in message
news:pan.2004.10.12.16.21.08.607560@afn.org...
> On Tue, 28 Sep 2004 19:18:09 +0000, Jimmie wrote:
>
> > Neighborhood covenant was recently ammended to allow vertical antennas
and
> > to exclude beam antennas other than TV antennas and smaller. Fortunately
for
> > me my tribander was already grandfathered in, I lived here before it was
a
> > neighborhood.. I want to make the best of a Rhon 25 tower I have stored
> > away. My tower is 50ft tall and could be extented even taller using
vertical
> > elements that did not support a load other than themselves. I was
thinking
> > of tuning the tower into a Giant copper Cactus antenna for 20M thru UHF
by
> > fastening 1/4 wl stubs on the side of the tower. Any reason why this
would
> > not work.
>
> That's essentially what the Hy-Gain AV18HT HyTower is- a 50' tower with
> stubs to make it resonate on 80-10. They say with a loading coil at the
> feed it also does well on 160. You should be on the right track here,
> though I'd likely do separate verticals for 6m, 2m and UHF. There was a
> dandy 2m/440 collinear vertical in QST last fall that's working fine for
> me, and I've had good results with a copper pipe 6m J-pole in the past.

I believe that antenna behaves more like a 1/4 wl antena and the stubs act
as traps
>
> --
> ---------------------------------------------------------------------
> Bruce H. McIntosh scotsman@afn.org www.afn.org/~scotsman WA4UF
> ---------------------------------------------------------------------
> Network geek with a strong affinity for Telecasters
>
>

# 721. Re: Thermal and EM images of antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-18 16:20:27 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <5tq7n0deii3inc7tm6i8k1cdbpfsl7kcii@4ax.com>
Source record: 88216

On Mon, 18 Oct 2004 17:26:24 +0200, "Thierry" <-> wrote:
>"Richard Clark" <kb7qhc@comcast.net> wrote in message
>news:q5d6n0571l6cr5lq447j50r39uui0gmhvu@4ax.com...
>> Hi Thierry,
>>
>> I got your email. Simply copy the pages to display where you want if
>> you wish. I am not particular about the vanity of copyright nor
>> "patent pending." You will note that I also provide both the antenna
>> designs and mathcad files for free too.
>>
>
>Thanks for sharing ;-)

Hi Thierry,

You are welcome. Sharing is the means to establish "prior art" to
break the back of commercial tech-fraud. It has nipped a lot of
hyperventilated claims for fractal antenna "inventions" over the
years. ;-)

73's
Richard Clark, KB7QHC

## 722. Re: Thermal and EM images of antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-18 16:28:43 UTC
From: fractenna@aol.com
Message-ID: <20041018122843.27979.00002738@mb-m02.aol.com>
Source record: 88218

> Sharing is the means to establish "prior art" to
>break the back of commercial tech-fraud. It has nipped a lot of
>hyperventilated claims for fractal antenna "inventions" over the
>years. ;-)
>
>73's
>Richard Clark, KB7QHC

What claims are you referring to, Mr. Clarke, and who stated them?

What evidence do you have that your amateur web page has had any impact on the art of fractal antennas; their use; and so on?

Regards,

Nathan Cohen

## 723. Re: Fractenna lashes out at hams using BPL

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-18 16:29:14 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <0er7n0136sod20s8ftjqug3l5hng19br99@4ax.com>
Source record: 88217

On Mon, 18 Oct 2004 15:36:34 GMT, sideband <AINO8SPAMW@cac.net> wrote:

>If (and when) you can't. I'll accept your apology.

Hi OM,

You will have to get in line behind the fellow he named as the
Wakefield Killer....

If needs be, the archive contains the explicit information to this act
against Amateur Radio Operators and its COMPLETE context can be
provided if any ignorance or dissembling is presented.

73's
Richard Clark, KB7QHC

# 724. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-18 16:34:40 UTC
From: k3bu@aol.comNoUsama
Message-ID: <20041018123440.22356.00002015@mb-m16.aol.com>
Source record: 88219

>
>
>No, I meant in which ARRL publication can I find either ON4UN's or your
>article correcting the last 50 years of "misinformation?"
>
>John
>
>
>

So far the stuff is on my and W5DXP web site, more coming soon as soon as
weather and QRL gets more friendly.

Stay tuned or do your own measurements.

Yuri

## 725. Re: Fractenna lashes out at hams using BPL

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-18 16:36:37 UTC
From: sideband <AINO8SPAMW@cac.net>
Message-ID: <piScd.9001$5b1.7233@newssvr17.news.prodigy.com>
Source record: 88220

Richard:

Thanks for the heads up. I know Fracky from way back. I've been here awhile, but mostly I just read, because I don't have much "on topic" to contribute that those who are much more learned (such as yourself) haven't already shared. Occasionally I can relate an experience I've had with mobile operations that might be helpful, or rebut idiocy and malformed opinions as they're stated.

So thanks for the concern. Keep up the good work here in the NG.

-SSB

Richard Clark wrote:

> On Mon, 18 Oct 2004 15:36:34 GMT, sideband <AINO8SPAMW@cac.net> wrote:
>
>
>>If (and when) you can't. I'll accept your apology.
>
>
> Hi OM,
>
> You will have to get in line behind the fellow he named as the
> Wakefield Killer....
>
> If needs be, the archive contains the explicit information to this act
> against Amateur Radio Operators and its COMPLETE context can be
> provided if any ignorance or dissembling is presented.
>
> 73's
> Richard Clark, KB7QHC

## 726. Re: Thermal and EM images of antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-18 16:37:55 UTC
From: sideband <AINO8SPAMW@cac.net>
Message-ID: <DjScd.9002$5b1.7528@newssvr17.news.prodigy.com>
Source record: 88121

Fractenna wrote:
> What evidence do you have that your amateur web page has had any impact on the
> art of fractal antennas; their use; and so on?
>
> Regards,
>
> Nathan Cohen
>

The same evidence that you profess concerning the impact your website
has had, I'm sure.

::chuckle::

-SSB

## 727. Re: Fractenna lashes out at hams using BPL

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-18 17:11:23 UTC
From: Mike Coslo <mjc5remove@psu.edu>
Message-ID: <4173F93B.3020505@psu.edu>
Source record: 88122

Mark wrote:
> You know what the trouble is with us amateurs is ?
>
> We are stuck in the analogue age... We should all be using digital
> communications by now..
>
> Wasn't there a time when amateurs were ahead of commercial design?
>
> Now all we do is complain when the commercial world brings out new
> technology that
> causes a problem with our old technology.
>
> Look at the big picture people... We are still using analogue
> communications..
> Blimey , even my home phone is digital. My CD player is digital, my TV is
> digital.
>
> That's my 2 pence worth ( about 4 cents... )

There are some serious limitations to digital voice comms that make it not work so well for our purposes. Bandwidth issues, believe it or not.

Another problem I note is that I was reading a review of a unit that will interface between the microphone and xciever. I was reading along with interest - it sounded pretty good - then at the end of the article they note that you have to receive the whole transmission, or you receive nothing. No tuning across the bands looking for a signal. Perhaps the ARS should be channelized like CB?

Comparisons with cell phones are amusing because the quality of those little POC's is by and large unacceptable IMO. "Can you hear me now?" 8^)

## 728. Re: Gain per unit length of boom

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-18 17:26:35 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <mXi1IhJLz$cBFA6Y@ifwtech.co.uk>
Source record: 88123

aunwin@insightbb.com wrote:
>My ARRL books go back a decade or more
>and the graph showing gain per boom length
>has several curves based on different measurements
>e.t.c. Has a graph been made based solely on NEC
>program findings over say a perfect ground and at a uniform height?

There is a table of data calculated by VE7BQH for a large number of
different yagis, at:
http://www.ifwtech.co.uk/g3sek/diy-yagi/ve7bqh.htm
(These are not calculated by NEC, but by another very adequate program.)

You can draw your own curve from the data in the L(WL) and Gain columns.
Since all the data have been calculated by the same person, starting
from the antenna's mechanical dimensions, and using the same program,
this removes a lot of variables.

You will see a broad trend of increasing gain with boom length, but
there is still a lot of scatter due to variations between different
designs. Also bear in mind that gain isn't everything, and a long yagi
that has been maximized for gain may be a poor antenna in other ways,
such as sidelobe levels, ease of pointing, sensitivity to water on the
elements, ease of matching etc.

Drawing gain curves is a fun activity... but don't try to read too much
into them.

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

## 729. Re: Fractenna lashes out at hams using BPL

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-18 17:30:45 UTC
From: Mike Coslo <mjc5remove@psu.edu>
Message-ID: <4173FDC5.7090500@psu.edu>
Source record: 88125

Richard Clark wrote:
> On Mon, 18 Oct 2004 10:43:03 +0100, "Mark"
> <bigfathhairybiker@MAILhot(swapemround).com> wrote:
>
>
>>You know what the trouble is with us amateurs is ?
>
>
> Hi Mike,
>
> Sure, some of them don't know what "digital" is, your posting contains
> examples which follow below.
>
>
>>We are stuck in the analogue age... We should all be using digital
>>communications by now..
>
>
> As an isolated statement that is true. There are more modulation
> modes now than there were 20, 30, 40, 50 years ago, and many of them
> are digital based - BPL is baseband, not modulation, however I will
> let that pass for further discussion.
> There are also digitally based methods of generating an RF frequency
> of a purity that exceeds all the current Ham radio equipment
> commercially available, but those methods are not widebanded trash
> generators. Clearly, digital methods are not necessarily interfering
> methods - except in the hands of commercial interests with less than
> amateur talent in marketing dominating their engineer's efforts.

Why aren't we using them then? Is the nasty need for channelizing going
to rear up?

>>Wasn't there a time when amateurs were ahead of commercial design?
>
>
> This is called being stuck in the time warp of 1928 innovation and
> WWII's need to draft both the Ham and his transmitter because of a
> shortfall of equipment. Since then, except for rare achievements like
> exploring Spread Spectrum (which the FCC hamstrung) it has been follow
> the market.
>
> The Amateur community is not about being a class of inventors, but
> rather a resource pool of savvy and experienced technicians and
> engineers who could be relied upon to reign in the self-interests of
> decadent commercialism. This dialogue is one clear and obvious

> example of both that talent's exercise, and the stonewalling of a
> crypto-fascist administration.
>
>
>>Now all we do is complain when the commercial world brings out new
>>technology that causes a problem with our old technology.
>
>
> I presume by the inclusive nature of "we" that you are against new
> technology? If not, then your argument contains its own
> self-negation. If so, then your argument is what psychology calls
> "projection" WE do not necessarily share YOUR problem.

If there is a digital mode that uses less bandwidth, sounds at least
acceptable to enough people, and allows me to tune my radio in a normal
fashion, I'll hop right on it.

And of course, we have to remember that there is an inertia based on
the need to have people to talk to. If I have the nifty new digital mode
of communications, how much fun is it going to be if I only have three
other people to QSO with? These things take time, and I may assume that
Mark has a digital rig?

>>Look at the big picture people... We are still using analogue
>>communications..
>>Blimey , even my home phone is digital. My CD player is digital, my TV is
>>digital.
>
>
> And in this last statement, "we" find your poor understanding of the
> problem in general, and the concept of what digital is, in particular.

I guess I hadn't looked at it from that perspective, but I agree, there
must be some confusion as to what exactly digital is.

> Your TV is analogue even if your remote tuner is digital. Even there,
> your remote tuner is not digital, it is CW (albeit with a different
> code set). CW is one of the oldest modes around. That IR beam that
> communicates with your big bottle across the room sends a chopped
> light beam that is in now way OCTAL nor HEXIDECIMAL but closer to
> Baudot. This is about as close to "digital" as you are in the living
> room, and Amateur equipment has had this advantage for quite a long
> time now (Baudot has been with amateur service for at least 60 years).

> As for your home phone or CD player, if you have any impression that
> you are actually listening to "digital" you are indeed the product of
> genetic manipulation and should rush a sample of your DNA to the
> nearest patent office to claim your birthright is actually
> intellectual property.
>
> Again, any "digital" property found in these commonplace AND LINEAR
> devices is and has been found in Amateur equipment for a very long

> time now. If this is news to you, you can then appreciate your unique
> problem of "projecting" your lack of understanding on others and
> calling them out for being against technology.

I have a nice mid-80's IC745 that is indeed digital in all the places
where it serves the purpose!

- Mike KB3EIA -

## 730. Re: Fractenna lashes out at hams using BPL

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-18 17:39:06 UTC
From: fractenna@aol.com
Message-ID: <20041018133906.25923.00002542@mb-m03.aol.com>
Source record: 88124

>Mark wrote:
>> You know what the trouble is with us amateurs is ?
>>
>> We are stuck in the analogue age... We should all be using digital
>> communications by now..
>>
>> Wasn't there a time when amateurs were ahead of commercial design?
>>
>> Now all we do is complain when the commercial world brings out new
>> technology that
>> causes a problem with our old technology.
>>
>> Look at the big picture people... We are still using analogue
>> communications..
>> Blimey , even my home phone is digital. My CD player is digital, my TV is
>> digital.
>>
>> That's my 2 pence worth ( about 4 cents... )
>
>
>There are some serious limitations to digital voice comms that make it
>not work so well for our purposes. Bandwidth issues, believe it or not.
>
>Another problem I note is that I was reading a review of a unit that
>will interface between the microphone and xciever. I was reading along
>with interest - it sounded pretty good - then at the end of the article
>they note that you have to receive the whole transmission, or you
>receive nothing. No tuning across the bands looking for a signal.
>Perhaps the ARS should be channelized like CB?
>
> Comparisons with cell phones are amusing because the quality of those
>little POC's is by and large unacceptable IMO. "Can you hear me now?" 8^)
>

Modern digital HF voice can be hi fidelity; narrow bandwidth, and experience few dropouts. It is superior to SSB, in any case. I don't see why it is not a superior solution for amateur service HF needs.

The next trend will be software defined radios/cognitive radios, for which we have already got a simple taste of in recent years with Kachina, and so on. The thing that will be new to us is the incredible flexibility of the choice of waveform and frequency.

It IS a real shame that hams, as hams, have not led the telecom revolution/evolution in the last decade. We had a shot at being the first

practical and major adopters of spread spectrum a generation ago--that fizzled.

It may very well be that changes in the mode allowances on HF will encourage some major innovation.

Do you now realize that SSB has had a longer run than AM as the dominant mode in the ham community? Other than legacy use in military and public service, where else will you find such an allegiance to SSB?

SSB is noisy; not optimized in bandwidth; and of poor fidelity. CW even beats it for S/N for a given link.

SSB is especially prone to broadband low noise levels. All the more reason to move it aside for better modes.

73,
Chip N1IR

## 731. Re: Gain per unit length of boom

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-18 17:52:53 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <eg08n014318ibjh24ii93c0sppkdh91a5a@4ax.com>
Source record: 88127

On Mon, 18 Oct 2004 18:26:35 +0100, "Ian White, G3SEK"
<G3SEK@ifwtech.co.uk> wrote:

>Drawing gain curves is a fun activity... but don't try to read too much
>into them.

Hi Ian,

While at a lecture, the lecturer got a question from the audience that
was premised "don't believe everything you think."

73's
Richard Clark, KB7QHC

## 732. Re: another lie

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-18 17:53:51 UTC
From: Chuck <wa7rai@raibeam.com>
Message-ID: <4pTcd.7862$6P5.4143@okepread02>
Source record: 88126

Roy Lewallen <w7el@eznec.com> wrote in message
news:10n6gmud0qalf27@corp.supernews.com...
> I'm not at all insisting on your testing your antenna -- I have no need
> to. NEC-2 and EZNEC are perfectly capable of accurately modeling it, and
> accurately show the gain and pattern it will have in practice.

Methinks your opinion is in error, Roy...

NEC2d /NEC4 may well be capable, but I
have my reservations about your EZNEC.

I've been looking through your Ver. 3 manual
and I cannot find any reference to non-
radiating networks: two-port network
specification (NT)) or the thin-wire option: the
Extended Thin-Wire Kernel (EK). Nor do I
see these functions in your control panel.

In looking through the NEC2d docs, my
concern regarding NEC's ability to 'see'
"induced current at one or more points in a
structure" has been put to rest. However, in
Section V of the NEC2d docs (p 62), quite a
lot of attention is given to (1) source
modeling and (2) nonradiating networks.

On page 67 (Section V, 2 - Nonradiating
networks), through p 71, there is much
discussion ITR. In part:

"The driving-point matrix relates the voltages
and currents at network connection points as
required by the electromagnetic interactions.
The driving-point-interaction equasions are
then solved together with the NETWORK or
transmission line equasions to obtain the
INDUCED currents and voltages."

All EZNEC seems to offer ITR, are
simple transmission line simulations where
the fed (source) energy is applied to a
segement (load).

Figure 20 (p 69) and Figure 21 (p 70)
and the related discussion, make clear that
NEC can model parallel elements coupled
through a 2-port network (simulated bi-

directional transmission line).

Since your control center appears to not
utilize 2-port networks, it is no wonder your
software fails to agree in some instances
with empirical data.

> Its
> operation is simple and easily understandable. I'm entirely satisfied
> that I understand how it works and what its performance is.

LOL

>
> My offer, which I think was generous, was to pay the bill if a test
> showed your antenna to meet the claims you made. I'm not offering to
> test your antenna for you.

Wiggle, wiggle, squirm... that's not
what I'm asking.

> You've once again chosen to fall back on your
> back yard test and creative pseudo-scientific theory to explain the
> claims you've made, rather than to show the world, at no expense to you,
> that the claims are valid. That's up to you. I'm not obligated to
> disprove your extraordinary claims.

You are, however, obligated to provide
ALL of the NEC capabilities in your
software!

If, in your closed-minded ignorance, you
wish to call critical coupling a
"pseudo-scientific" theory, so be it. But in
doing so, you leave me wondering if,
perhaps, some concepts simply lay
beyond your ability to visualize.

73 de Chuck, WA7RAI

>
> Roy Lewallen, W7EL
>

## 733. Re: another lie

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-18 18:13:24 UTC
From: fractenna@aol.com
Message-ID: <20041018141324.01302.00002428@mb-m04.aol.com>
Source record: 88129

>>
>> My offer, which I think was generous, was to pay the bill if a test
>> showed your antenna to meet the claims you made. I'm not offering to
>> test your antenna for you.
>
>Wiggle, wiggle, squirm...
>

Chuck,

What do you need to test? What frequency(ies)?

It may be possible to arrange a test which is gratis if you are wrong and payable by a third party if you are right, in the specs:pattern/gain/SWR and so on...

Drop me an e-mail.

73,
Chip N1IR

## 734. Re: Fractenna lashes out at hams using BPL

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-18 18:18:30 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <al08n09abl8rrik4h8mv7tvkbmjgateasd@4ax.com>
Source record: 88130

On Mon, 18 Oct 2004 13:30:45 -0400, Mike Coslo <mjc5remove@psu.edu>
wrote:
>> There are also digitally based methods of generating an RF frequency
>> of a purity that exceeds all the current Ham radio equipment
>> commercially available, but those methods are not widebanded trash
>> generators. Clearly, digital methods are not necessarily interfering
>> methods - except in the hands of commercial interests with less than
>> amateur talent in marketing dominating their engineer's efforts.
>
> Why aren't we using them then? Is the nasty need for channelizing going
>to rear up?

Hi Mike,

Heavens no. There are several means to generate a clean RF source
digitally. These devices (a chip with a rock) can change phase, or
frequency in the time it takes to change a register (microseconds).
These are largely based on look-up tables feeding D/A converters.

Memory is cheap you may well know, I habitually carry a 128MB flash
drive in my pocket as my briefcase, and a 64MB voice recorder as my
stenographer, and my 32MB Palm Pilot as secretary. Grand total cost
for my "digital" office is under $300.

Another method of high purity RF source generation is direct feed of a
pulse train into amps with only the slightest of filtering. These
pulse trains are weighted to look like a binary sine wave (a few bits
on early, a lot on in the middle, and a few on in the late stage).
This work has been long available in the pages of Steve Ciarcia's
magazine "Circuit Cellar."
http://www.circellar.com/
I believe it was written up by Don Lancaster (a name that should be
resourced for ideas that approach problems obliquely). The length of
the pulse train, and the weighting of the bit positions leads to
exceptionally pure RF (spurs at least 60dB down).

The only problem here in this last method is moving that pulse train
fast enough for HF (128 bit trains to drive at HF will require you to
clock them through at UHF rates).

The only problem with the look-up/ADC method is that with my last look
at these products, they were roughly limited to 16MHz (with 0.1Hz
resolution) - so perhaps some mixing is called for at the higher
bands.

> If there is a digital mode that uses less bandwidth, sounds at least
>acceptable to enough people, and allows me to tune my radio in a normal
>fashion, I'll hop right on it.

You need to look at Digital AM (specifically Harris transmitters).
>
> And of course, we have to remember that there is an inertia based on
>the need to have people to talk to. If I have the nifty new digital mode
>of communications, how much fun is it going to be if I only have three
>other people to QSO with?

This is why Spread Spectrum died in Ham radio. The FCC mandated we
transmit on a specific "gold code" and painted the research into an
isolated technical corner.

>I guess I hadn't looked at it from that perspective, but I agree, there
>must be some confusion as to what exactly digital is.

It is a Marketing term like fractal antenna - wholly spun from the
imagination to create the impression of advanced technology when it
has been around since the early 1800s (anyone ever here of Ada?).

> I have a nice mid-80's IC745 that is indeed digital in all the places
>where it serves the purpose!

Exactimundo!

73's
Richard Clark, KB7QHC

## 735. Re: Another lie... Ping Roy

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-18 18:18:49 UTC
From: Chuck <wa7rai@raibeam.com>
Message-ID: <3HTcd.7864$6P5.4646@okepread02>
Source record: 88128

Yuri Blanarovich <k3bu@aol.comNoUsama> wrote in message
news:20041016225220.17374.00001982@mb-m27.aol.com...
> >
> >You claim to be a science minded
> >person, yet you choose to accept
> >theoretical results over contradicting
> >empirical data, and do so, without
> >even an iota of curiosity.
> >
> >That is not science, it's closed-minded
> >silliness! Equally as silly, is your
> >raising such a stink over 1/3 of a dB...
> >which will prove to be your Waterloo. :)
> >
> >73,
> >Chuck, WA7RAI
> >
> >
>
> I'l second that!
> Very precisely put :-)
>
> Yuri

Hi Yuri,

Thanks for the flowers... it now appears
EZNEC may not be all that it is capable of... :(

Chuck

## 736. Re: another lie

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-18 18:54:48 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10n84btbpncp45c@corp.supernews.com>
Source record: 88131

Chuck wrote:

>
> I've been looking through your Ver. 3 manual
> and I cannot find any reference to non-
> radiating networks: two-port network
> specification (NT)) or the thin-wire option: the
> Extended Thin-Wire Kernel (EK). Nor do I
> see these functions in your control panel.

The extended thin wire kernel is invoked automatically when the model is such that it's needed, according to the criteria given in the NEC manual. Two port networks are used by EZNEC only to create current sources and transmission lines.

>
> In looking through the NEC2d docs, my
> concern regarding NEC's ability to 'see'
> "induced current at one or more points in a
> structure" has been put to rest. However, in
> Section V of the NEC2d docs (p 62), quite a
> lot of attention is given to (1) source
> modeling and (2) nonradiating networks.
> . . .

I'm glad you've finally looked in the manual to correct your misconceptions about the NEC transmission line model.

> All EZNEC seems to offer ITR, are
> simple transmission line simulations where
> the fed (source) energy is applied to a
> segement (load).

In the Transmission Lines window, the user specifies which wires the two ends of the transmission line are connected to. There's no requirement that one be a "source" or one a "load". These use the NEC network model, as does NEC.

>
> Figure 20 (p 69) and Figure 21 (p 70)
> and the related discussion, make clear that
> NEC can model parallel elements coupled
> through a 2-port network (simulated bi-
> directional transmission line).
>
> Since your control center appears to not
> utilize 2-port networks, it is no wonder your

> software fails to agree in some instances
> with empirical data.

Huh?

I'm always interested in hearing of any case where EZNEC disagrees significantly with NEC-2 for any model, and I'm not aware of any such cases. Anyone seeing such disagreement is encouraged to contact me. Please include both the NEC and EZNEC models.

>
> You are, however, obligated to provide
> ALL of the NEC capabilities in your
> software!

No, Chuck, I'm not obligated to do anything you say. Anyone not satisfied with the capabilities of EZNEC is encouraged to not purchase it. I guarantee that anyone who does purchase it will be satisfied.

> If, in your closed-minded ignorance, you
> wish to call critical coupling a
> "pseudo-scientific" theory, so be it. But in
> doing so, you leave me wondering if,
> perhaps, some concepts simply lay
> beyond your ability to visualize.

Indeed. I also have trouble with Chi, the healing power of crystals, astrology, homeopathy, reflexology, phrenology, and water witching. Believers in those things say exactly the same thing about me, so surely you must be right. Guilty as charged.

Roy Lewallen, W7EL

## 737. Re: BPL AOK!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-18 20:07:10 UTC
From: theplanters95@aol.comnospam
Message-ID: <20041018160710.18603.00002725@mb-m07.aol.com>
Source record: 88132

So why did the FCC comment system reject (multiple times) my comments and these questions about bpl?

If you look at the bpl test areas, none of them are in rural areas. Come out to where I live and you will found rural on top of a 6200 foot mountain with a 10 percent grade to go up and down.

Randy ka4nma

## 738. Re: I am normally mild and polite...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-18 20:53:04 UTC
From: Mike Coslo <mjc5remove@psu.edu>
Message-ID: <41742D30.6060104@psu.edu>
Source record: 88133

Fractenna wrote:
>>
>>
>>Fractenna wrote:
>>
>>
>>>Dear OM,
>>>
>>>I am sorry that you take personal offense; I will be happy to state why
>>
>>this
>>
>>>was posted:
>>>
>>>1) it has been an ongoing topic on this NG for a long time, and now we have
>>>final resolution;
>>
>>Final resolution? Not even close. Part 15 still needs to be rewritten.
>>
>>
>>>2) I did not expect nor require anyone to respond, ergo the 'troll factor'
>>
>>is
>>
>>>not an issue;
>>>3) The FCC has taken careful and measured steps to assure that US amateurs
>>>remain with the enjoyment of the HF bands, given the sharing of spectrum
>>
>>with
>>
>>>BPL.
>>>4)It is the very best scenario for all involved. That is definitely worth
>>>gloating over.
>>
>>It isn't all about the amateurs.
>>
>>There is money to be made. Equipment to build, systems to map out and
>>fiber to run. And in the end, when BPL fails, there will be class action
>>lawsuits. But in the interim, there was money to be made.
>>
>> We don't have to worry about gloating, or Hams or whatever. Too much of
>
>
>>the existing infrastructure will interfere with BPL. The power companies

>>will have to repair this infrastructure, which many are loathe to do
>>(see F.C.C. enforcement actions) Too many places that will support BPL
>>at a profit are already served by faster and more reliable systems. And
>>the rural areas, which BPL was supposed to service admirably, don't have
>>the population density to run that fiber to.
>>
>> It isn't the Hams, it is poor technology coupled with a bad business
>
> model.
>
>> Now if someone wanted to run fiber past my house, and allow me access
>>to it at what I'm paying now for cable.... *then* I'd be interested!
>>
>> - Mike KB3EIA -
>>
>
> Hi Mike,
>
> Although I disagree with you, it's nice to see thoughtful arguments, as opposed
> to 'let's kill the technology' diatribes.

Yeah, some of the arguments are a heavy on emotion and short on facts.
And I don't mind discussions with those who disagree with me. Helps to
make up one's mind.

- mike KB3EIA -

## 739. Re: Fractenna lashes out at hams using BPL

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-18 21:38:24 UTC
From: kelly@dvol.com
Message-ID: <d22b54c3.0410181338.40685cc5@posting.google.com>
Source record: 88134

fractenna@aol.com (Fractenna) wrote in message
news:<20041017071133.19078.00002727@mb-m29.aol.com>...

. . . .

> Obviously there will be some markets where BPL does well, and others where it
> won't.

> But for a few vocal hams to try to kill a new technology only focuses the
> spotlight back on us, as, in fact, it has this past Summer and Spring (for
> example, the front page Wall Street Journal article). And that focus makes us
> look antiquated and silly to the outside world.

Speaking of news articles chew on this one Chipster:

http://www.technewsworld.com/story/37378.html

So no, I'm not horribly worried about BPL running on the lines around
here. Us "Luddites" who have been proactive in the fight against BPL
have realized for a long time that it's business model is
fundamentally unworkable and that it's very likely gonna be another
dot.bomb. Like any number of the recent-era "marvelous new
technologies" which went down the pipe when the bubble popped.

>
> Chip N1IR

Brian w3rv

## 740. Re: Fractenna lashes out at hams using BPL

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-18 22:34:16 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <btf8n055serli83dba4qaedt745qv4r908@4ax.com>
Source record: 88135

On 18 Oct 2004 14:38:24 -0700, kelly@dvol.com (Brian Kelly) wrote:

>Speaking of news articles chew on this one Chipster:
>
>http://www.technewsworld.com/story/37378.html
>

Hi Brian,

From that story:
"Lastly, the commission indicated that access to BPL would facilitate the ability of electric companies to manage the power grid by delivering remote diagnosis of electrical failures."

This is one of those benefits, tarted up with a fresh paint job to convince ignorant investors of a remarkable accomplishment. In fact the industry has had this ability to perform remote diagnostics remotely for generations. The first time they sold it honestly to the investors as SCADA.

Basically, the article describes the utter failure of the FCC's ineptitude in refusing to standardize the design of the "Last Mile" connectivity. This means the mile from subscriber to the nearest terabit optical pipeline that could pump video on demand for everyone - in both directions. In other words, the best of BPL is a technological joke as a promise and bait and switch routine for an existing service that is better and closer, but fails to rise in the Neanderthalic imagination of Powell.

The "Party of Business" has been an abysmal failure as evidenced by the flat lined Dow for YEARS. The neo-cons in charge have added more layers of government bureaucracy than a frothing liberal signing laws to "help us."

73's
Richard Clark, KB7QHC

## 741. 4:1 balun advice sought...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-18 22:45:03 UTC
From: ars_wa8mea@netzero.com
Message-ID: <9ae88a70.0410181445.5fb776e@posting.google.com>
Source record: 88136

I am looking to add another type of antenna to our product line. It will require a 4:1 balun/center insulator. Because of time & labor restrictions, we would just as soon purchase another companies 4:1 balun/center insulator instead of making our own. (At least for the time being....)

It has been a long time since I've used any baluns. Seems I recall they were made by Unidilla. I see they are still around and in business. Reasonably priced, too. Is this the "best bang for your buck"???

What is the lowest priced 4:1 balun on the market? What, in your opinion, is the BEST 4:1 balun on the market???

No, I am not a troll. Just legit questions with your feedback very much appreciated.

Thanks and 73,

Bill - WA8MEA
DWM Communications
ars_wa8mea@netzero.com
http://qth.com/dwm

# 742. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-18 22:46:57 UTC
From: richardharrison@webtv.net
Message-ID: <21811-417447E1-319@storefull-3258.bay.webtv.net>
Source record: 88137

Tom Donaly, KA6RUH wrote:
"There may be a difference in current along the coil, but it isn`t a current drop."

Call it a decline if you don`t like the word drop.

A wave traveling along an antenna induces current in the wire. This current causes radiation from the wire.

A current traveling from "a" to "b" in the wire loses energy to radiation. The energy at "b" is less than the energy at "a" if the source is at "a".

If the impedance at "a" is the same as the impedance at "b", the voltage and the current at "a" are larger than the voltage and current at "b".

We don`t need energy to decline from "a" to "b" to have a current drop. We only need current to decline between "a" and "b". Yuri has demonstrated a "current drop" with r-f ammeters inserted at both ends of the loading coil. Analysis of the cause is not necessary to demonstrate a current drop.

As straight wires are usually better radiators than the same wire in coils, I speculate that the current drop measured by Yuri is mostly due to the high impedance (High voltage, low current) on the output of the loading coil.

Best regards, Richard Harrison, KB5WZI

## 743. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-18 22:58:08 UTC
From: richardharrison@webtv.net
Message-ID: <21811-41744A80-320@storefull-3258.bay.webtv.net>
Source record: 88139

John Smith wrote:
"And in what ARRL publication might I find this information?"

It`s in ON4UN`s "Low-Band DXing", an ARRL publication.

Best regards, Richard Harrison, KB5WZI

# 744. OT: WI FI VS BPL

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-18 22:58:51 UTC
From: theplanters95@aol.comnospam
Message-ID: <20041018185851.22988.00002202@mb-m10.aol.com>
Source record: 88138

Check out
http://www.cnn.com/aol/story/2004/10/18/cnn_internet_wireless.city.html for an interesting story of how cities are setting up WI FI internet systems. One thing that stood out was the the consumer cost, about $30 cheaper than quotes I've seen for BPL. And it's cool that they are using existing street lamps for mounting stations.

The cities are providing a service verses utility companies providing a commodity. That means that cities are not in it for the money, unlike utility companies. Which in turn would help lower income households set up internet servies. For my situation, doing a rough cost benefit analysis, I would go with the Wi Fi System if offered. Lower costmonthly cost, better speed, less chance of interference, better realiblity (power flickered several times during a windstorm which would have meant that I would be bumped off). I could use internet for 3 months verses 1 month for BPL.

I do believe the article made a mistake in talking about interference from microwaves, cordless phones, home/business wi fi systems and baby monitors. Are baby monitors and microwaves ovensnow on 2.4 ghz? I thought baby monitors were on 49 mhz, and microwaves in the 1.7-1.8 GHZ range? The article also mentioned the low frequencies???

Randy ka4nma

## 745. Re: WI FI VS BPL

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-18 23:06:22 UTC
From: Bob McBeth <BobbyMcBeth_NotReally_@HotMail.com>
Message-ID: <O%Xcd.2331$QJ2.6583341@news.sisna.com>
Source record: 88142

"Theplanters95"
> Are baby monitors and microwaves ovens now on 2.4 ghz?
> I thought baby monitors were on 49 mhz, and microwaves
> in the 1.7-1.8 GHZ range?

Microwave ovens are 2.4 GHz. They do leak enough to cause interference (for example, on my 2.4 GHz wireless headphones and wireless speakers).

Baby monitors can be various frequencies including 49MHz, 900 MHz, and 2.4GHz. Can be an interesting listen once in a while.

Cordless telephones have reached 5.8GHz in addition to the other lower bands. Good ones are spread spectrum.

BTW - wait until you see Wi-Max in two or three years.

## 746. Re: Fractenna lashes out at hams using BPL

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-18 23:11:53 UTC
From: Bob McBeth <BobbyMcBeth_NotReally_@HotMail.com>
Message-ID: <Y4Ycd.2332$%n5.7031971@news.sisna.com>
Source record: 88141

```
>> Don't forget, he's STILL not giving straight answers
>> to the questions posed to him, nor providing
>> independent sources for verification of his answers.

"Fractenna"
> It is important that you express care when making
> statements that are false.

Did anyone ever get to the bottom of who discovered radiocarbon dating ????

MK:
> You may not be antiquated, but you are without a doubt,
> one of the silliest bastards I've ever come across on usenet.
> ... I'm sure many will back me up on this conclusion.

Amen!
```

## 747. Re: another lie

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-18 23:16:32 UTC
From: Chuck <wa7rai@raibeam.com>
Message-ID: <t4Ycd.7911$6P5.6594@okepread02>
Source record: 88140

Roy Lewallen <w7el@eznec.com> wrote in message
news:10n84btbpncp45c@corp.supernews.com...
> Chuck wrote:
> > [... ]

> The extended thin wire kernel is invoked automatically when the model is
> such that it's needed, according to the criteria given in the NEC
> manual.

Which states: "Transmission lines interconnecting
parts of an antenna may be modeled either
explicitly by including the transmission wires in the
thin-wire model, OR implicitly by the method
described in the preceding section for nonradiating
networks." Then goes on to explain the implicit
model, followed by: "The implicit model is limited,
however, in that it neglects interaction between
the transmission line and its environment." (Which
is what's implied for a transmission line in the
EZNEC manual.)

When is the thin-wire model invoked?

What is your criteria for this 'automatic' choice?

Continuing: "This approximation is justified if the
currents in the line are balanced, i.e., in a log
periodic dipole antenna, and in general if the
transmission lies in an electric symmetry plane.
The balance can be upset, however, if the
transmission line is connected to an unbalanced
load or by unsymmetrical interactions. If the
unbalance is significant, the transmission line
can be modeled by including the wires in the
thin-wire model."

In the Raibeam design, the load is unbalanced
due to its "plumbers delight" construction and the
resultant matching networks. From this, one
would naturally assume the interconnecting
phasing line must be included in the thin-wire
model.

How does one determine if this is the case or
not?

Why is the user left unable to make this choice
independently?

And BTW, how does one model a receiving
antenna in EZNEC?

> > you leave me wondering if,
> > perhaps, some concepts simply lay
> > beyond your ability to visualize.
>
> Indeed. I also have trouble with Chi, the healing power of crystals,
> astrology, homeopathy, reflexology, phrenology, and water witching.

Does this include action-at-a-distance
as well?

Chuck, WA7RAI

> Roy Lewallen, W7EL

## 748. Re: Fractenna lashes out at hams using BPL

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-18 23:25:06 UTC
From: Bob McBeth <BobbyMcBeth_NotReally_@HotMail.com>
Message-ID: <ohYcd.2333$hn5.7001148@news.sisna.com>
Source record: 88144

"Richard Clark"
> ...the "Last Mile" connectivity. This means the mile
> from subscriber to the nearest terabit optical pipeline
> that could pump video on demand for everyone
> - in both directions.

Re: 'video on demand' - it has been noted that one of the greatest drivers of many technologies is the p0rn industry (so I've read). Anyway...

Personally I'd be happy to write a cheque for $1k (or even $2k) to have the fibre line run all the way into my basement. $1k one-time is small potatoes as compared to $50 per month access fee (or $600 per year, NPV cash value of about $6k - YMMV).

Oh well, www.Wildblue.com is coming soon.

Followed closely by Wi-Max.

BTW - Wi-Max will put local radio broadcasters (AM/FM) in competition with Internet radio for mobile listeners (in cars). I wish them good luck <smirk>.

## 749. Re: another lie

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-18 23:32:29 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <8ek8n05ltudmc523858k81q7d0f2033v39@4ax.com>
Source record: 88143

On Mon, 18 Oct 2004 16:16:32 -0700, "Chuck" <wa7rai@raibeam.com>
wrote:

>How does one determine if this is the case or
>not?

Hi Chuck,

Model the structure explicitly.

73's
Richard Clark, KB7QHC

## 750. Funky CNN Story...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-18 23:40:32 UTC
From: fractenna@aol.com
Message-ID: <20041018194032.01575.00002761@mb-m28.aol.com>
Source record: 88145

http://www.cnn.com/2004/SHOWBIZ/TV/10/18/odd.television.reut/index.html

73,
Chip N1IR

## 751. Re: Gain per unit length of boom

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-18 23:41:41 UTC
From: k9sqg@aol.com
Message-ID: <20041018194141.03318.00002317@mb-m17.aol.com>
Source record: 88146

In any case the curve was normalized across several factors and was to be used as a guideline to substantiate that the longer the boom the higher the gain. Other factors like F/B, F/S, bandwidth, losses, etc. were not addressed.

## 752. Re: another lie

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-18 23:54:35 UTC
From: richardharrison@webtv.net
Message-ID: <5078-417457BB-328@storefull-3256.bay.webtv.net>
Source record: 88147

Chuck, WA7RAI wrote:
"wrote:
"And BTW, how does one model a revceiving antenna in EZNEC?"

No need. Antennas behave the same when receiving as when transmitting.
So if you know how an antenna behaves when transmitting, you also know
how it behaves when receiving.

Best regards, Richard Harrison, KB5WZI

## 753. Re: another lie

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 00:04:15 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10n8mg4km2cau41@corp.supernews.com>
Source record: 88148

If any EZNEC customer is interested in the answers to these or other questions about EZNEC, please email me and I'll be glad to answer them. (My only request is that before asking any question about EZNEC, you make an honest effort to find the answer in the manual. That's the only way I can possibly provide the level of support my customers deserve.)

I have the strong feeling that Chuck isn't nearly so interested in the inner workings of EZNEC as he is in simply being as big a nuisance to me as he can. After all, he's said how horrible he thinks the EZNEC interface is, and has never purchased it. And I've been guilty of encouraging his being a nuisance by responding. I apologize to the other readers for this.

I've wasted much more time with Chuck than he deserves. From here on, let Chuck, Art, Chip, and Yuri will have to vent their frustrations without me. I will continue to try to contribute positively to the newsgroup as I have (tried) in the past. Ignoring Chuck is a necessary step in doing so.

Roy Lewallen, W7EL

Chuck wrote:

> . . .
> When is the thin-wire model invoked?
>
> What is your criteria for this 'automatic' choice?
>
> . . .

> How does one determine if this is the case or
> not?
>
> Why is the user left unable to make this choice
> independently?
>
> And BTW, how does one model a receiving
> antenna in EZNEC?
>. . .

## 754. Re: Funky CNN Story...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 00:06:29 UTC
From: Bob McBeth <BobbyMcBeth_NotReally_@HotMail.com>
Message-ID: <dUYcd.2334$dr6.7258246@news.sisna.com>
Source record: 88149

"Fractenna"
www.cnn.com/2004/SHOWBIZ/TV/10/18/odd.television.reut/index.html

One thing doesn't make sense.

If it was emitting on 121.5 MHz, then why was it first picked-up by a satellite, as opposed to the dozens of aircraft that would have been passing overhead in the time before the satellite passed over ?

The Truth !! - as filtered through journalism students <sigh>.

## 755. Re: 4:1 balun advice sought...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 00:13:13 UTC
From: jgboyles@aol.com
Message-ID: <20041018201313.16253.00000901@mb-m01.aol.com>
Source record: 88151

>It has been a long time since I've used any baluns.

>What is the lowest priced 4:1 balun on the market?

Hi, Your best bet would be to look at the archives of this group concerning baluns. A low priced, high performance, one that will work over a wide dynamic range, is very difficult. If you could narrow your design constraints, the Wireman, and Byte Mark sell some that might work.
This is an Amateur newsgroup, sounds like you are trying to make some money, if I am wrong, sorry.
73 Gary N4AST

## 756. Re: Gain per unit length of boom

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 00:13:17 UTC
From: "aunwin@insightbb.com"
Message-ID: <x_Ycd.281755$3l3.162866@attbi_s03>
Source record: 88150

What brought this to my attention was Moxon who advocated 2 element beams
(lightnes translates to greater heights) so I modeled a 20 meter beam on a 7
foot
boom and obtained 12dbi max for the band (ala< 2:1) but one can get 13dbi
if you drop the impedance from 50 to 12 ohms.
This then raised the question would a transformer cancel the increased
gain. On the F/B
question it was of real interest to me to compare the first frontal lobe
gain to the second lobe at
the rear on the basis that propagation rules the second rear lobe as the
most important .
But all of this comes to a grinding halt if there is not a datum curve to
which one can
compare ones modeling when using more than two elements on such a short
boom..
I agree that one has to model to one's specific needs and as can be seen
from the ARRL curves
using short booms max gain varies tremendously.depending on curves chosen
none of which
are the cat's whiskers such as NEC based curve.
Art

"Ian White, G3SEK" <G3SEK@ifwtech.co.uk> wrote in message
news:mXi1IhJLz$cBFA6Y@ifwtech.co.uk...
> aunwin@insightbb.com wrote:
> >My ARRL books go back a decade or more
> >and the graph showing gain per boom length
> >has several curves based on different measurements
> >e.t.c. Has a graph been made based solely on NEC
> >program findings over say a perfect ground and at a uniform height?
>
> There is a table of data calculated by VE7BQH for a large number of
> different yagis, at:
> http://www.ifwtech.co.uk/g3sek/diy-yagi/ve7bqh.htm
> (These are not calculated by NEC, but by another very adequate program.)
>
> You can draw your own curve from the data in the L(WL) and Gain columns.
> Since all the data have been calculated by the same person, starting
> from the antenna's mechanical dimensions, and using the same program,
> this removes a lot of variables.
>
> You will see a broad trend of increasing gain with boom length, but
> there is still a lot of scatter due to variations between different
> designs. Also bear in mind that gain isn't everything, and a long yagi

> that has been maximized for gain may be a poor antenna in other ways,
> such as sidelobe levels, ease of pointing, sensitivity to water on the
> elements, ease of matching etc.
>
> Drawing gain curves is a fun activity... but don't try to read too much
> into them.
>
>
> --
> 73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
> http://www.ifwtech.co.uk/g3sek

## 757. Re: another lie

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 00:15:16 UTC
From: fractenna@aol.com
Message-ID: <20041018201516.07524.00002282@mb-m11.aol.com>
Source record: 88152

>I have the strong feeling that Chuck isn't nearly so interested in the
>inner workings of EZNEC as he is in simply being as big a nuisance to me
>as he can.

I see no evidence of this. Indeed, I see Chuck as being reasonable. I don't always agree with him, nor, I presume, him with me, but so what?

Chuck is an honorable person and deserves respect. I do not view Chuck as a competitor but as a colleague.

73,
Chip N1IR

## 758. Re: another lie

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 00:15:48 UTC
From: Bob McBeth <BobbyMcBeth_NotReally_@HotMail.com>
Message-ID: <_0Zcd.2335$aw6.7300201@news.sisna.com>
Source record: 88154

"Richard Harrison"
> Antennas behave the same when receiving
> as when transmitting. So if you know how
> an antenna behaves when transmitting, you
> also know how it behaves when receiving.

A receiving antenna exposed to the far field, receives plane waves (essentially flat wavefront). If you 'play the film backwards', does a transmitting antenna emit plane waves?

;-)

# 759. Re: Gain per unit length of boom

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 00:20:18 UTC
From: "aunwin@insightbb.com"
Message-ID: <65Zcd.150611$He1.116446@attbi_s01>
Source record: 88153

Jimmy,
I did not want to choose a curve that matches my modelling which you can
when presented with three different curves all of which are formulated at
different
times by different people. I would have thought that the advent of NEC
would
render these curves redundant !
Art

"Jimmie" <Gfender@carolina.rr.com> wrote in message
news:eMRcd.66272$ci3.3918146@twister.southeast.rr.com...
>
> "aunwin@insightbb.com" <aunwin@insightbb.com@insightbb.com> wrote in
message
> news:xOzcd.263953$D%.243703@attbi_s51...
> > My ARRL books go back a decade or more
> > and the graph showing gain per boom length
> > has several curves based on different measurements
> > e.t.c. Has a graph been made based solely on NEC
> > program findings over say a perfect ground and at a uniform height?
> > Art
> >
> >
> They probably have been done but there will not be much difference between
> them and the ARRL graphs. Its been long known how to calculate antenna
gain,
> computers just take the teadous labor out of it.
>
>

## 760. Re: another lie

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 00:27:47 UTC
From: fractenna@aol.com
Message-ID: <20041018202747.07582.00002097@mb-m11.aol.com>
Source record: 88155

>A receiving antenna exposed to the far field, receives plane waves
>(essentially flat wavefront). If you 'play the film backwards', does a
>transmitting antenna emit plane waves?
>
>;-)
>

They end up that way.

Reciprocity is a fundamental aspect of antenna theory.

73,
Chip N1IR

## 761. Re: another lie

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 00:40:32 UTC
From: Bob McBeth <BobbyMcBeth_NotReally_@HotMail.com>
Message-ID: <4oZcd.2336$Yb7.7608337@news.sisna.com>
Source record: 88156

>> A receiving antenna exposed to the far field,
>> receives plane waves (essentially flat wavefront).
>> If you 'play the film backwards', does a
>> transmitting antenna emit plane waves?

"Fractenna"
> They end up that way.

Soooooo... ...the wavefront in the nearfield is now flat <smirk> so that it matches the flat wavefront in the receive case ?

> Reciprocity is a fundamental aspect of antenna theory.

Only if someone can explain the above discrepancy.

It seems apparent that one might arrange an array to exploit the difference between the flat (far field) incoming wavefront in the receiver mode and the obviously-curved wavefront (near field) being emitted in the transmit case to produce significantly different macro performance characteristics.

In other words, playing the film backwards doesn't work.

## 762. Re: another lie

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 01:37:07 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <p5r8n05b15460af2lds4l2hkgbnthhgcp3@4ax.com>
Source record: 88157

On Mon, 18 Oct 2004 21:40:32 -0300, "Bob McBeth"
<BobbyMcBeth_NotReally_@HotMail.com> wrote:
>Only if someone can explain the above discrepancy.
>
>It seems apparent that one might arrange an array to exploit the difference
>between the flat (far field) incoming wavefront in the receiver mode and the
>obviously-curved wavefront (near field) being emitted in the transmit case
>to produce significantly different macro performance characteristics.
>
>In other words, playing the film backwards doesn't work.

Does it say I am the walrus?

Hi Bob,

Obviously you've been subjected to a dumbed down attitude in response
to your question.

The fact of the matter is that the receive antenna does not sense a
flat wave approaching it because the antenna distorts the continuum
around it. The antenna and the medium out to several wavelengths is
NOT a characteristic Z of 377 Ohms as seen in an undisturbed field.
I've offered this treatment to Thierry, so it seems it would be useful
for you to observe as well at:
http://home.comcast.net/~kb7qhc/antennas/Fields/index.htm
with a specific example for a monopole at:
http://home.comcast.net/~kb7qhc/antennas/Fields/Vertical/index.htm

As you may observe, the medium surrounding the antenna is anything but
consistent. In effect, the medium and the antenna present an RF lens;
and as you may well appreciate, a lens distorts paths to optimize for
a use. This distortion is like pressing into a bowl of jello, that
medium may have been consistent in the beginning, but with the applied
pressure, the near regions to the disturbance present new surfaces and
densities. Same goes for an antenna - transmitting or receiving.

73's
Richard Clark, KB7QHC

## 763. Re: another lie

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 02:00:07 UTC
From: fractenna@aol.com
Message-ID: <20041018220007.07524.00002288@mb-m11.aol.com>
Source record: 88158

>
>>> A receiving antenna exposed to the far field,
>>> receives plane waves (essentially flat wavefront).
>>> If you 'play the film backwards', does a
>>> transmitting antenna emit plane waves?
>
>"Fractenna"
>> They end up that way.
>
>Soooooo... ...the wavefront in the nearfield is now flat <smirk> so that it
>matches the flat wavefront in the receive case ?
>
>> Reciprocity is a fundamental aspect of antenna theory.
>
>Only if someone can explain the above discrepancy.
>
>It seems apparent that one might arrange an array to exploit the difference
>between the flat (far field) incoming wavefront in the receiver mode and the
>obviously-curved wavefront (near field) being emitted in the transmit case
>to produce significantly different macro performance characteristics.
>
>In other words, playing the film backwards doesn't work.
>
>

Bob,

When I was a lil squirt, we had something called a 'ripple tank'. It showed how
the film works backwards.

73,
Chip N1IR

## 764. Re: another lie

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 02:18:37 UTC
From: richardharrison@webtv.net
Message-ID: <12235-4174797D-271@storefull-3255.bay.webtv.net>
Source record: 88159

Chip,
N1IR wrote:
"They end up that way (as plane waves at a great distance from the radiator). Reciprocity is a fundamental aspect of antenna theory."

Dr. Cohen is, of course, correct.

Dr. John D. Kraus says in his 3rd edition of "Antennas" on page 439: "If an emf is applied to the terminals of antenna A and the current measured at the terminals of another antenna B, then an equal current (in both amplitude and phase) will be obtained at the terminals of antenna A if the same emf is applied to the terminals of antenna B."

Best regards, Richard Harrison, KB5WZI

# 765. Re: another lie

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 02:39:05 UTC
From: k3bu@aol.comNoUsama
Message-ID: <20041018223905.01883.00002022@mb-m14.aol.com>
Source record: 88163

>....Yuri will have to vent their frustrations
>without me.
>Roy Lewallen, W7EL

OK, we tried to have discussion about the current in loading coils, you defended W8JI position, who used EZNEC model of coil with zero physical length and "proved" that current is the same at both ends. You supported him by doing "experiment" with toroid at the bottom of antenna and writing page about how Yuri and Cecil are wrong.
We pointed out the fallacies in the way EZNEC models the coil, examples were given how to get around using hairpin or coil modeled as a "helix" by breaking turns into segments. Now this is incorporated in EZNEC 4.08 and surprise, surprise - it reflects the current distribution properly, showing that there is a difference of current in the loading coils as observed by me, measured by W9UCW, explained by W5DXP and KB5WZI. I thanked you for implementing this feature and pointed out another possible improvement in way the L is entered. The result? W8JI still keeps the crap on his web site, your letter is included there. Did we get thanks of heaven forbid apology? (You got better version, made extra bucks as result of us being "stupid") Not that I care or want to vent frustration. I mentioned before, I do ham radio as a hobby, when I see crap I try to point it out for the benefit of others.
I was going to do an article, but fortunately I have a life besides radio, had more pressing problems and this had to wait. I hope to do it soon, with some examples using EZNEC.
I wish there was more attitude here trying to discuss the problems rather than smart alec snotty attitude by some brother hams. If you screwed up or are wrong, admit it, learn, give credit where is due and we will all benefit. Nobody is perfect. But ridiculing or dumping on someone, because you (whoever) is "superior" and you "know" better, just makes that egg in the face look more yellow.

Thank you and good night!

Yuri, K3BU.us

## 766. Re: another lie

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 02:44:38 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <qc%cd.15790$nj.9224@newssvr13.news.prodigy.com>
Source record: 88162

Fractenna wrote:
>>I have the strong feeling that Chuck isn't nearly so interested in the
>>inner workings of EZNEC as he is in simply being as big a nuisance to me
>>as he can.
>
>
> I see no evidence of this. Indeed, I see Chuck as being reasonable. I don't
> always agree with him, nor, I presume, him with me, but so what?
>
> Chuck is an honorable person and deserves respect. I do not view Chuck as a
> competitor but as a colleague.
>
> 73,
> Chip N1IR

Indeed. Which gives Chuck's claims the same legitimacy most of us
on this newsgroup ascribe to claims you make about fractal antennas.
73,
Tom Donaly, KA6RUH

# 767. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 02:52:22 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <Gj%cd.15800$nj.6826@newssvr13.news.prodigy.com>
Source record: 88161

Richard Harrison wrote:

> Tom Donaly, KA6RUH wrote:
> "There may be a difference in current along the coil, but it isn`t a
> current drop."
>
> Call it a decline if you don`t like the word drop.
>
> A wave traveling along an antenna induces current in the wire. This
> current causes radiation from the wire.
>
> A current traveling from "a" to "b" in the wire loses energy to
> radiation. The energy at "b" is less than the energy at "a" if the
> source is at "a".
>
> If the impedance at "a" is the same as the impedance at "b", the voltage
> and the current at "a" are larger than the voltage and current at "b".
>
> We don`t need energy to decline from "a" to "b" to have a current drop.
> We only need current to decline between "a" and "b". Yuri has
> demonstrated a "current drop" with r-f ammeters inserted at both ends of
> the loading coil. Analysis of the cause is not necessary to demonstrate
> a current drop.
>
> As straight wires are usually better radiators than the same wire in
> coils, I speculate that the current drop measured by Yuri is mostly due
> to the high impedance (High voltage, low current) on the output of the
> loading coil.
>
> Best regards, Richard Harrison, KB5WZI
>

I would urge any young person who reads this and wants to understand
electromagnetics to get a good book on the subject, read what the
authors say, and forget what Richard just posted. He's all wrong.
73,
Tom Donaly, KA6RUH

# 768. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 02:56:32 UTC
From: k3bu@aol.comNoUsama
Message-ID: <20041018225632.01883.00002023@mb-m14.aol.com>
Source record: 88160

>Tom Donaly, KA6RUH wrote:
>"There may be a difference in current along the coil, but it isn`t a
>current drop."

He wrote that about four times, what's the point of it? Smart Alec attitude?

If there is something you believe is wrong and you know better, than please correct us stupid hams.

Thanks for your patience Richard, KB5WZI, you are one of few decent posters here.

73 Yuri, K3BU

## 769. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 03:00:48 UTC
From: k3bu@aol.comNoUsama
Message-ID: <20041018230048.01883.00002024@mb-m14.aol.com>
Source record: 88165

>
>I would urge any young person who reads this and wants to understand
>electromagnetics to get a good book on the subject, read what the
>authors say, and forget what Richard just posted. He's all wrong.
>73,
>Tom Donaly, KA6RUH
>
>

See what I mean?

I urge any young person to read the book about jerks.

## 770. Re: another lie

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 03:05:56 UTC
From: Bob MacBeth <BobbyMacBeth_NotReally_@HotMail.com>
Message-ID: <nw%cd.2341$bU.9227364@news.sisna.com>
Source record: 88166

"Richard Clark"
> Does it say I am the walrus?

No, although another infamous party to this thread bears a striking resemblance (including precious 'ivory towers' [tusks], thick blubber and a tough hide)...

http://images.google.com/images?q=Odobenus+rosmarus

To clarify things, lets go out 27.3 wavelengths from antenna A and mark an X. When antenna A is in receiving mode, the wavefront at X is essentially flat because antenna B is in the next county. When antenna A is in transmit mode, the wavefront at X is noticeably curved with a radius of something around 27.3 lambda. In other words, things are different even if the pathloss is the same in either direction.

I believe that it would be possible to design an antenna system (an array, a reflector system, or something with an RF lens) that took advantage of the difference between 'flat' versus 'curved' to produce an antennas system that had different pathloss in different directions (where antenna B was something simpler).

No sense arguing about it. Someone has to produce an example.

The ball is NOT in your court.

## 771. Re: another lie

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 03:07:05 UTC
From: k3bu@aol.comNoUsama
Message-ID: <20041018230705.01883.00002025@mb-m14.aol.com>
Source record: 88164

>"If an emf is applied to the terminals of antenna A and the current
>measured at the terminals of another antenna B, then an equal current
>(in both amplitude and phase) will be obtained at the terminals of
>antenna A if the same emf is applied to the terminals of antenna B."
>
>Best regards, Richard Harrison, KB5WZI
>
>

True if the antennas are reasonably close, if the signals between them have to go, propagate through the screwy atmosphere/ionosphere, then it is not necessarily true. Also, you might be transmitting one polarization and it might end up as different polarization at the other end and cause unequal current. (You can quote me on that :-)

Yuri, K3BU

# 772. Re: Gain per unit length of boom

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 03:24:53 UTC
From: richardharrison@webtv.net
Message-ID: <5079-41748905-114@storefull-3256.bay.webtv.net>
Source record: 88169

Art Unwin wrote:
"Has a graph been made based solely on NEC program findings over say a perfect ground and at a uniform height?"

I don`t know, but I`ve seen Yagi-Uda gain versus boomlength charts.

Before relying on such charts, it may be worthwhile to read "The Yagi-Uda Story" on page 246 of the 3rd edition of Kraus` "Antennas".

Also, the solution to a Deutsche Welle Short Wave Antenna problem on page 703 is given on page 705:

"the gain of a single 1/2-wave dipole is 2.15 dBi and of 2 collinear in=phase 1/2-wave dipoles is 3.8 dBi. The array of 8 such collinear dipoles adds 3+3+3=9 dB. The reflector screen adds 3 more and the ground bounce another 6 dB for a total gain of 3.8+9+3+6=21.8 dBi or a directivity of 151 approx."

The solved problem is worth the price of the book as a reality check.

Best regards, Richard Harrison, KB5WZI

## 773. Re: Fractenna lashes out at hams using BPL

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 03:27:29 UTC
From: Mike Coslo <mcoslo@adelphia.net>
Message-ID: <_LadnWASk748FOncRVn-iA@adelphia.com>
Source record: 88167

Richard Clark wrote:
> On 18 Oct 2004 14:38:24 -0700, kelly@dvol.com (Brian Kelly) wrote:
>
>
>>Speaking of news articles chew on this one Chipster:
>>
>>http://www.technewsworld.com/story/37378.html
>>
>
>
> Hi Brian,
>
> From that story:
> "Lastly, the commission indicated that access to BPL would
> facilitate the ability of electric companies to manage the power
> grid by delivering remote diagnosis of electrical failures."
>
> This is one of those benefits, tarted up with a fresh paint job to
> convince ignorant investors of a remarkable accomplishment. In fact
> the industry has had this ability to perform remote diagnostics
> remotely for generations. The first time they sold it honestly to the
> investors as SCADA.
>
> Basically, the article describes the utter failure of the FCC's
> ineptitude in refusing to standardize the design of the "Last Mile"
> connectivity. This means the mile from subscriber to the nearest
> terabit optical pipeline that could pump video on demand for everyone
> - in both directions. In other words, the best of BPL is a
> technological joke as a promise and bait and switch routine for an
> existing service that is better and closer, but fails to rise in the
> Neanderthalic imagination of Powell.
>
> The "Party of Business" has been an abysmal failure as evidenced by
> the flat lined Dow for YEARS. The neo-cons in charge have added more
> layers of government bureaucracy than a frothing liberal signing laws
> to "help us."

That is because Neo-Con's are a mutant form of liberal. Kind of like
liberals that have drank waaay too much coffee and turned mean! 8^)

But they are still liberals.

- Mike KB3EIA -

# 774. Re: Here's what some think of BPL

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 03:31:00 UTC
From: Mike Coslo <mcoslo@adelphia.net>
Message-ID: <JfadncVNvJ3pF-ncRVn-pQ@adelphia.com>
Source record: 88168

Bill Turner wrote:

> On Sun, 17 Oct 2004 21:22:52 -0400, Mike Coslo <mcoslo@adelphia.net>
> wrote:
>
>
>>BPL is a exceptionally flawed method of DSL level "broadband"
>>
>> I am surprised that some would think of it as anything even remotely
>>modern. It is old old stuff.
>
>
> ____________________________________________________
>
> I see the sky is still falling.
>
> Relax guys, and study up on WiMax technology. WiMax will kill BPL as
> surely as the automobile killed the horse-drawn cart.

Something, just about anything, will take care of BPL. It is the technological bottom of the barrel. As I have noted though, peckering around with part 15 might be a bigger headache than BPL could ever be.

And the sky is always falling! ;^)

- Mike KB3EIA-

## 775. Re: another lie

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 03:47:49 UTC
From: richardharrison@webtv.net
Message-ID: <5079-41748E65-119@storefull-3256.bay.webtv.net>
Source record: 88170

Yuri wrote:
"True if---"

Good point. The fault is mine. Kraus followed his reciprocity statement with a raft of qualifications, but I`m no typist, and Kraus` final book deserves a place with every serious collector of antenna information.

Best regards, Richard Harrison, KB5WZI

# 776. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 04:33:48 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41749748$1_4@127.0.0.1>
Source record: 88071

John Smith wrote:
> "The loading coil acts as the lumped constant that it is, and disregarding
> losses and coil radiation, maintains the same current flow throughout.

This statement is somewhat misleading. A standing-wave antenna is
somewhat like a transmission line with standing waves. There are
TWO component currents in a standing wave antenna, forward and reflected.
The total current is the phasor sum of those two currents. Even if the
forward current were constant and the reflected current were constant,
the total current changes because of the phase shift between the
forward current phase and reflected current phase as these two phases
are changing in opposite directions.

For instance, given a 1/4WL ground plane vertical, the forward current
and reflected current are in phase at the feedpoint, thus resulting in
high current. At the tip top of the 1/4WL ground plane, the reflected
current is 180 degrees out of phase with the forward current and their
phasor sum is zero at that point.
--
73, Cecil, W5DXP

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

# 777. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 04:37:44 UTC
From: richardharrison@webtv.net
Message-ID: <8843-41749A18-321@storefull-3253.bay.webtv.net>
Source record: 88072

Tom Donaly, KA6RUH wrote:
"---forget what Richard just posted."

Suits me. You recall the old story about leading a horse to water.

Tom rejects measurements of r-f currents at both ends of a loading coil at work. The currents were clearly differing.

Tom must be stuck with battereis and the rise and fall these produce in the current of an inductor.

A loading coil is usually in the antenna field in our examples. The loading coil is subject to an incident wave and to a reflected wave. These waves combine in a continuously varying phase relation along the coil to make current, impedance, and voltage all functions of their positions along the coil. Every spot along the coil is different when both waves are sensed together. That`s the way SWR works, and we`re discussing standing-wave antennas.

I have a 1982 ARRL Antenna Book. On page 13-3 there is a Fig. 6, "Improved Current Distribution Resulting From Center Loading". The loading coil clearly shows less current at its top than at its bottom.

Best regards, Richard Harrison, KB5WZI

## 778. Re: Gain per unit length of boom

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 04:49:23 UTC
From: "aunwin@insightbb.com"
Message-ID: <n11dd.151619$He1.29928@attbi_s01>
Source record: 88073

"Richard Harrison" <richardharrison@webtv.net> wrote in message
news:5079-41748905-114@storefull-3256.bay.webtv.net...
> Art Unwin wrote:
> "Has a graph been made based solely on NEC program findings over say a
> perfect ground and at a uniform height?"
>
> I don`t know,

Neither do I thus the question

> but I`ve seen Yagi-Uda gain versus boomlength charts.

So have I but not based on NEC

>
> Before relying on such charts, it may be worthwhile to read "The
> Yagi-Uda Story" on page 246 of the 3rd edition of Kraus` "Antennas".
>
> Also, the solution to a Deutsche Welle Short Wave Antenna problem on
> page 703 is given on page 705:
>
> "the gain of a single 1/2-wave dipole is 2.15 dBi and of 2 collinear
> in=phase 1/2-wave dipoles is 3.8 dBi. The array of 8 such collinear
> dipoles adds 3+3+3=9 dB. The reflector screen adds 3 more and the ground
> bounce another 6 dB for a total gain of 3.8+9+3+6=21.8 dBi or a
> directivity of 151 approx."

The above extract is lost on me as I was looking for maximum gain per unit
boom length based on NEC without regard to number of elements
required to attain that gain. Thus increases or decreases from critical
coupling
can be ascertained..

Art

>
> The solved problem is worth the price of the book as a reality check.
>
> Best regards, Richard Harrison, KB5WZI
>

## 779. Re: Why?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 04:49:42 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <V01dd.16216$qH3.15767@bignews6.bellsouth.net>
Source record: 88074

"Ken Bessler" <kg0wx@NOSPAMyahoo.com> wrote in message
news:2ti2duF1vu2hhU1@uni-berlin.de...
> Can anyone tell me why I get a worse SWR at
> 100w than at 5w?

You probably don't.
The SWR meter is probably not accurate, at low power.
Try a different meter.

---
Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.778 / Virus Database: 525 - Release Date: 10/15/2004

## 780. Re: So, where does one get aluminum tubes for antenna construction?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 04:52:53 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <U31dd.16217$qH3.5826@bignews6.bellsouth.net>
Source record: 88075

Try aluminum arrows

"Doug McLaren" <dougmc@frenzy.com> wrote in message
news:swxcd.14048$Rf4.6903@fe2.texas.rr.com...
> I'm looking to make a 2m/70cm yagi antenna for working satellites.
> The plans are out there, and it seems quite simple. (Or I could pay
> $73 to Arrow Antenna, but I'll give it a shot myself first.)

---
Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.778 / Virus Database: 525 - Release Date: 10/15/2004

## 781. Is lighting nuts?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 05:13:49 UTC
From: CIL <lorentsonci@lycos.com>
Message-ID: <1689n0tg9mnd8k5jef3m55gu8122irs23p@4ax.com>
Source record: 88076

I HAD a tower up on the north side of the house for about 15 years, it
, top out at about 100feet. I built a 'tilt over' that is 52 feet tall
with a mast of about 25, = 77 give or take. been 'up' about 1.5 years
and lighting has 'hit' it twice. One was higher, never hit, this one
is lower, hit is there anything I can do to 'fix this'? Lost
antennas, need to do 'something'. thanks in advance. cl
73

# 782. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 05:33:29 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <4174a545$1_4@127.0.0.1>
Source record: 88077

Yuri Blanarovich wrote:

>>I would urge any young person who reads this and wants to understand
>>electromagnetics to get a good book on the subject, read what the
>>authors say, and forget what Richard just posted. He's all wrong.
>>73, Tom Donaly, KA6RUH
>
> See what I mean?
> I urge any young person to read the book about jerks.

The key to understanding the total current in standing-wave antennas
is in understanding the forward current and reflected current components
and their superposition at different points along the antenna. The cosine
distribution of standing-wave current in a 1/2WL dipole is the result
of the superposition of forward-traveling current and rearward-traveling
reflected current.

An unterminated rhombic is a standing-wave antenna because the forward
current gets reflected at the open end of the wire. The forward current
causes radiation in the forward direction and the reflected current
causes radiation in the rearward direction. The radiation "loss" causes
the reflected current at the feedpoint to be a lower magnitude than
the forward current at the feedpoint. There are standing waves all
up and down an unterminated rhombic and the Vtot/Itot feedpoint impedance
depends partially upon the phase between the forward current and
reflected current and, of course, upon their magnitudes.

Properly terminating a rhombic virtually eliminates reflections and
turns the antenna into a traveling-wave antenna which radiates mostly
in the forward direction. There are virtually no standing waves on
such an antenna.

These same ideas can be applied to other standing-wave antennas, including
a 1/2WL inverted-V. In EZNEC, we can terminate the ends of such an antenna
to ground through resistors that eliminate standing waves on the antenna.
The feedpoint impedance of such an antenna is in the ballpark of 600 ohms.
Where does the low feedpoint impedance of an unterminated 1/2WL inverted-V
come from? It comes from the superposition of the forward current and
the reflected current at the feedpoint. These two components are in phase
and phasor-add to a large current. The two voltage components are 180 deg
out of phase and add to a small voltage. small-voltage/large-current is
a low feedpoint impedance. Using a minus sign for 180 degrees, the feedpoint
impedance of an inverted-V is approximately (Vf-Vr)/(If+Ir).

We can understand a standing-wave antenna by doing an analysis of a lossy
piece of transmission line. If the losses in the transmission line approximately

equal the radiation "loss" of the antenna, the feedpoint impedances will have approximately the same value.

Once standing-wave antenna currents are understood, it is easy to see why the total superposed currents at each end of a 75m Bugcatcher coil are nowhere near equal even though the forward current and reflected current at each end of the coil are close to the same value.

Circuit analysis works well when there is only one current flowing in a coil. Circuit analysis falls apart when forward and reflected currents are flowing in a coil and distributed network analysis is required when such coils are installed in standing-wave antennas.
--
73, Cecil, http://www.qsl.net/w5dxp

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http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

## 783. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 05:41:37 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <fu99n09qrpfvhp1kj8k450jkbnjqot8ent@4ax.com>
Source record: 88078

On 19 Oct 2004 02:56:32 GMT, k3bu@aol.comNoUsama (Yuri Blanarovich)
wrote:

>He wrote that about four times, what's the point of it? Smart Alec attitude?

Hi Yuri,

And yet you are on Tom for just such a similar distinction of word
choice. Does this illustrate the principles of reciprocity? ;-)

73's
Richard Clark, KB7QHC

## 784. Re: Fractenna lashes out at hams using BPL

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 05:52:58 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <e6a9n09ra4608e32ksb992tbd7g5llje7d@4ax.com>
Source record: 88079

On Mon, 18 Oct 2004 23:27:29 -0400, Mike Coslo <mcoslo@adelphia.net>
wrote:

> That is because Neo-Con's are a mutant form of liberal. Kind of like
>liberals that have drank waaay too much coffee and turned mean! 8^)
>
> But they are still liberals.

Hi Mike,

You and I are probably the only two to understand that point, but when a right-winger who's been hood-winked into taking them into their fold.... They will swallow a lot of swill and proclaim it Champagne before admitting the lie. After-all, the pay off is so rewarding when the neocons leave the financial tap running for them (helps the swill go down).

We need only look at Nader embracing the only group that would carry him into elections and they are the resurrection of the American Nazi party.

Now there's a principle of reciprocity that is truly comic.

73's
Richard Clark, KB7QHC

## 785. Re: Here's what some think of BPL

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 05:56:38 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <0ta9n0pgf97q72cj656u1pe44gpfcnmd0l@4ax.com>
Source record: 88080

On Mon, 18 Oct 2004 23:31:00 -0400, Mike Coslo <mcoslo@adelphia.net>
wrote:
>And the sky is always falling! ;^)

Hi Mike,

One point I learned about centrifugal force (falling toward earth
while in orbit), is that it is always missing where it would have hit
if things didn't move (hence staying in orbit).

73's
Richard Clark, KB7QHC

## 786. Re: another lie

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 06:01:57 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <f4b9n0hb9us6msoh7mcuc31tjd978pf4ev@4ax.com>
Source record: 88081

On Tue, 19 Oct 2004 00:05:56 -0300, "Bob MacBeth"
<BobbyMacBeth_NotReally_@HotMail.com> wrote:
>No sense arguing about it. Someone has to produce an example.

Hi Bob,

Oh, no argument, I've done that here through modeling too using
exactly your point. The results were trivial, but for some, extremely
hard to swallow. ;-)

73's
Richard Clark, KB7QHC

# 787. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 06:04:42 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <4174ac96$1_4@127.0.0.1>
Source record: 88082

Richard Harrison wrote:
> I have a 1982 ARRL Antenna Book. On page 13-3 there is a Fig. 6,
> "Improved Current Distribution Resulting From Center Loading". The
> loading coil clearly shows less current at its top than at its bottom.

My 1988 version shows the same thing on page 16-4, Fig. 7. Unfortunately,
two pages later, in Fig. 10 it shows how the current at the top of a
loading coil can be four times higher than would exist in an equal
top length of a 90 degree antenna. Since V*I*cos(theta) is the power, does
that mean that the voltage at the top of the coil is 1/4 the value of
an equal top length of a 90 degree antenna? So the impedance looking into
that 15 degrees of whip above the coil is 1/16 of the impedance looking
into that same 15 degrees of that same whip mounted above 75 degrees of
wire??? Doesn't sound reasonable, does it? Exactly how does that coil
manage to change the impedance looking into 15 degrees of whip by a
factor of 16 AT THE TOP OF THE COIL?????

That's exactly what happens when one uses circuit analysis on a distributed
network problem. If circuit analysis worked on such a problem, we wouldn't
need distributed network analysis.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

# 788. Re: another lie

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 06:11:21 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <mdb9n013gqd89fug49mhdnb69gnpthf27t@4ax.com>
Source record: 88083

On 19 Oct 2004 02:39:05 GMT, k3bu@aol.comNoUsama (Yuri Blanarovich)
wrote:
>We pointed out the fallacies in the way EZNEC models the coil, examples were
>given how to get around using hairpin or coil modeled as a "helix" by breaking
>turns into segments.

Hi Yuri,

You fail to attribute WHO provided those "breaking turns into
segments" which was/is/isn't(?) documented at your
current/former/removed(?) page as myself and Roy. Making this a part
of the current software version is hardly the epiphany of a visitation
seeking the absolution from sin.

As I pointed out before, nothing new has been added and the fire has
been drowned in spit.

73's
Richard Clark, KB7QHC

## 789. Re: Why?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 06:12:20 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <osb9n05e6oth26m9t4cq97nkdu8u9eh23i@4ax.com>
Source record: 88084

On Tue, 19 Oct 2004 00:49:42 -0400, "Hal Rosser"
<hmrosser@bellsouth.net> wrote:
>Try a different meter.
Same problem.

## 790. Re: Fractenna lashes out at hams using BPL

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 07:00:38 UTC
From: kashe@sonic.net
Message-ID: <epe9n05us9lv1rv05skd4uaflsj89foq6j@4ax.com>
Source record: 88085

On Mon, 18 Oct 2004 22:34:16 GMT, Richard Clark <kb7qhc@comcast.net>
wrote:

>On 18 Oct 2004 14:38:24 -0700, kelly@dvol.com (Brian Kelly) wrote:
>
>>Speaking of news articles chew on this one Chipster:
>>
>>http://www.technewsworld.com/story/37378.html
>>
>
>Hi Brian,
>
>From that story:
> "Lastly, the commission indicated that access to BPL would
> facilitate the ability of electric companies to manage the power
> grid by delivering remote diagnosis of electrical failures."

More likely so they can monitor usage so you have to get up at
3:30 am to do the laundry so business interests have daytime power to
themselves.

They'll likely also use it to shut off power for late paynment
without the nuisance of a truck roll.

## 791. Re: EH-antenna: sensation or fraude?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 07:20:08 UTC
From: bozidar.pasaric@ri.htnet.hr
Message-ID: <1glwc1l.jqy2qz1ifs2p2N%bozidar.pasaric@ri.htnet.hr>
Source record: 88086

> 
> There is not one shred of science in any of this - except the words
> they use to disguise the fraud.
> 
> 73's
> Richard Clark, KB7QHC

Thanks to OM Mario, 9A4DE, who called my attention to the following two sotes, I got the answer I was looking for. The sites are:

http://www.home.earthlink.net/~calvinf15/_technical/EH_antenna_test_report_2.pdf

# 792. Re: EH-antenna: sensation or fraude?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 07:30:02 UTC
From: bozidar.pasaric@ri.htnet.hr
Message-ID: <1glwc94.154a0wgcya4v9N%bozidar.pasaric@ri.htnet.hr>
Source record: 88087

R
>
> There is not one shred of science in any of this - except the words
> they use to disguise the fraud.
>
> 73's
> Richard Clark, KB7QHC

Thanks to OM Mario, 9A4DE, I finally got the answers I was looking for:
Visit these sites:
1)
http://www.home.earthlink.net/~calvinf15/_technical/EH_antenna_test_repo
rt.pdf

2)
http://www.home.earthlink.net/~calvinf15/_technical/EH_antenna_test_repo
rt_2.pdf

Thanks everybody for taking part in the discussion. My dilemmas have
been solved:
- practically: I am not going to build the EH antenna.
- theoretically: The EH antenna behaves exactly according to the
existing classical antenna theory.
Bozidar, 9a2hl

## 793. Re: Gain per unit length of boom

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 07:37:02 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <y3mwA8GeQMdBFAiq@ifwtech.co.uk>
Source record: 88089

aunwin@insightbb.com wrote:
>I did not want to choose a curve that matches my modelling which you
>can
> when presented with three different curves all of which are formulated
>at different
> times by different people. I would have thought that the advent of NEC
>would
> render these curves redundant !

The plot of many individual yagis does confirm the general idea of gain being roughly proportional to boom length, and that is a very important thing to understand.

Note that this is only for long-ish yagis with many elements. For yagis of 2-3-4 elements on a short boom, the first few dB of gain come very easily. Beyond that, the data points settle back towards the long-yagi trend line.

To increase the gain by 3dB, you need to either double the boom length (and redesign the yagi, obviously) or else stack two of the same yagis... and either way, in practice you'll achieve slightly less than 3dB.

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

## 794. Re: EH-antenna: sensation or fraude?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 07:42:38 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <86g9n0l0vjm84bn473d93pjb4o3r6nl2gn@4ax.com>
Source record: 88088

On Tue, 19 Oct 2004 09:20:08 +0200, bozidar.pasaric@ri.htnet.hr
(Bozidar Pasaric) wrote:

>Thanks to OM Mario, 9A4DE, who called my attention to the following two
>sotes, I got the answer I was looking for. The sites are:
>
>http://www.home.earthlink.net/~calvinf15/_technical/EH_antenna_test_repo
>rt_2.pdf

Hi Bozidar,

Looks OK until you ask yourself just what does line of sight
calibration have to do with useful DX communication? Their comparison
of AM antennas and their replacement eh model was tellingly abysmal
when it came to a practical sized service area (in other words, beyond
line of sight communications).

I notice they either suppress their FCC antenna report, or otherwise
hide their citations that offer signal reports that dive 30 dB below
the standard AM signal for their ramshackle AM replacement antenna.
A tractor couldn't bury their signal deeper.

Do you need a copy of that? I kept one in anticipation of its
embarrassing numbers (obviously misunderstood by the clients of this
test) suddenly disappearing (obviously when they finally got a clue).

73's
Richard Clark, KB7QHC

## 795. Re: Gain per unit length of boom

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 07:50:22 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <V0eJASI+cMdBFAn4@ifwtech.co.uk>
Source record: 88090

aunwin@insightbb.com wrote:
>
>The above extract is lost on me as I was looking for maximum gain per
>unit boom length based on NEC without regard to number of elements
> required to attain that gain. Thus increases or decreases from
>critical
>coupling
>can be ascertained..
>
You misunderstand what this curve is telling you.

There is a general law that gain is proportional to "aperture area". For something like a dish, "aperture area" is the frontal area of the dish itself (multiplied by an efficiency factor <1). For long yagis, "aperture area" is roughly proportional to boom length.

This concept has nothing whatever to do with NEC! But it is the absolute bedrock of all antenna engineering. What you really need right now is to read the first few chapters of Kraus... and understand these most basic principles.

NEC calculations will not tell you anything about this. NEC is simply a tool to calculate what the gain of a particular antenna will be (or can be, if you build it as modeled).

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

# 796. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 08:10:31 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <wkMAkKJ3vMdBFAC6@ifwtech.co.uk>
Source record: 88091

Tom Donaly wrote:
>Richard Harrison wrote:
>
>> Tom Donaly, KA6RUH wrote:
>> "There may be a difference in current along the coil, but it isn`t a
>> current drop."
>> Call it a decline if you don`t like the word drop.
>> A wave traveling along an antenna induces current in the wire. This
>> current causes radiation from the wire. A current traveling from
>>"a" to "b" in the wire loses energy to
>> radiation. The energy at "b" is less than the energy at "a" if the
>> source is at "a".
>> If the impedance at "a" is the same as the impedance at "b", the
>>voltage
>> and the current at "a" are larger than the voltage and current at "b".
>> We don`t need energy to decline from "a" to "b" to have a current
>>drop.
>> We only need current to decline between "a" and "b". Yuri has
>> demonstrated a "current drop" with r-f ammeters inserted at both ends of
>> the loading coil. Analysis of the cause is not necessary to demonstrate
>> a current drop.
>> As straight wires are usually better radiators than the same wire in
>> coils, I speculate that the current drop measured by Yuri is mostly due
>> to the high impedance (High voltage, low current) on the output of the
>> loading coil.
>> Best regards, Richard Harrison, KB5WZI
>>
>
>I would urge any young person who reads this and wants to understand
>electromagnetics to get a good book on the subject, read what the
>authors say, and forget what Richard just posted. He's all wrong.

Well, not entirely, if he follows through the logic of what he says. An
ideal loading inductance does *not* radiate; therefore the current at
its two terminals *must* be the same.

I keep coming back to the same point: until someone correctly
understands what pure unadulterated inductance does in an antenna, he
can never *truly* understand how a real-life loading coil works.

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

## 797. Re: Is lighting nuts?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 08:42:08 UTC
From: matt wilson <mwilson2@nospam.bigpond.net.au>
Message-ID: <Ar4dd.31632$5O5.21487@news-server.bigpond.net.au>
Source record: 88092

"CIL" <lorentsonci@lycos.com> wrote in message
news:1689n0tg9mnd8k5jef3m55gu8122irs23p@4ax.com...
I HAD a tower up on the north side of the house for about 15 years, it
, top out at about 100feet. I built a 'tilt over' that is 52 feet tall
with a mast of about 25, = 77 give or take. been 'up' about 1.5 years
and lighting has 'hit' it twice. One was higher, never hit, this one
is lower, hit is there anything I can do to 'fix this'? Lost
antennas, need to do 'something'. thanks in advance. cl
73

Lightning is Female. 20 million volts & 100 thousand Amps will do as it damm
well pleases!

## 798. 60 meter dipoles

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 09:21:49 UTC
From: jwb <j.beltz@insightbb.com>
Message-ID: <N05dd.275746$D%.136492@attbi_s51>
Source record: 88093

are there any good plans out there for the new band?
thanks jack

## 799. Re: So, where does one get aluminum tubes for antenna construction?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 11:03:33 UTC
From: Scott <acepilot@bloomer.net>
Message-ID: <KIGdnSNohoklbuncRVn-3A@bright.net>
Source record: 88094

Just about all aircraft builder supply places carry aluminum tubing as
well. I would think the 6061-T6 grade would be great for antennas as it
is quite corrosion resistant and fairly hard and thus more resistant to
bending under ice buildup if your locale supports the formation of ice ;)

Try http://www.aircraftspruce.com/menus/me/aluminum.html

Scott
N0EDV

Hal Rosser wrote:

> Try aluminum arrows
>
> "Doug McLaren" <dougmc@frenzy.com> wrote in message
> news:swxcd.14048$Rf4.6903@fe2.texas.rr.com...
>
>>I'm looking to make a 2m/70cm yagi antenna for working satellites.
>>The plans are out there, and it seems quite simple. (Or I could pay
>>$73 to Arrow Antenna, but I'll give it a shot myself first.)
>
>
>
>
> ---
> Outgoing mail is certified Virus Free.
> Checked by AVG anti-virus system (http://www.grisoft.com).
> Version: 6.0.778 / Virus Database: 525 - Release Date: 10/15/2004
>
>

--
Scott
http://corbenflyer.tripod.com/
Building RV-4
Gotta Fly or Gonna Die

## 800. Re: another lie

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 11:34:15 UTC
From: fractenna@aol.com
Message-ID: <20041019073415.15758.00002186@mb-m13.aol.com>
Source record: 88095

>Indeed. Which gives Chuck's claims the same legitimacy most of us
>on this newsgroup ascribe to claims you make about fractal antennas.
>73,
>Tom Donaly, KA6RUH
>

Only to you Tom.

Chuck is my colleague. As I stated, that doesn't mean that I always agree with him nor that he always agrees with me. If you were not acting so mean-spirited, IMO, you would also say the same thing.

Fractal antennas are now an established and proven aspect of antenna engineering, and part of the main stream.

The only 'claims' are those in extant and pending patents.

What's next: an argument on whether SSB has any advantages over AM? Shall we bring Bill into the mix?

73,
Chip N1IR

# 801. Re: WI FI VS BPL

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 12:52:55 UTC
From: kelly@dvol.com
Message-ID: <d22b54c3.0410190452.369562f1@posting.google.com>
Source record: 88096

"Bob McBeth" <BobbyMcBeth_NotReally_@HotMail.com> wrote in message
news:<O%Xcd.2331$QJ2.6583341@news.sisna.com>...
> "Theplanters95"
> > Are baby monitors and microwaves ovens now on 2.4 ghz?
> > I thought baby monitors were on 49 mhz, and microwaves
> > in the 1.7-1.8 GHZ range?
>
> Microwave ovens are 2.4 GHz. They do leak enough to cause interference (for
> example, on my 2.4 GHz wireless headphones and wireless speakers).
>
> Baby monitors can be various frequencies including 49MHz, 900 MHz, and
> 2.4GHz. Can be an interesting listen once in a while.
>
> Cordless telephones have reached 5.8GHz in addition to the other lower
> bands. Good ones are spread spectrum.
>
>
> BTW - wait until you see Wi-Max in two or three years.

Can't wait for Wi-MAX. It'll bury whatever bits and pieces of BPL are
still on the air 2-3 years out.

Viva Wi-MAX! Bring it on!

w3rv

# 802. Re: WI FI VS BPL

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 13:00:29 UTC
From: fractenna@aol.com
Message-ID: <20041019090029.29586.00002320@mb-m02.aol.com>
Source record: 88097

>Can't wait for Wi-MAX. It'll bury whatever bits and pieces of BPL are
>still on the air 2-3 years out.
>
>Viva Wi-MAX! Bring it on!
>
>w3rv

WiMax is a great thing, Brian. The main problem is actually one of antennas.

I think Wimax has a bright future, but I don't share your opinion that it will bury BPL. It seems more likely that it will replace Wi-Fi in extant deployments at some point. My opinion, anyway.

73,
Chip N1IR

## 803. Re: Is lighting nuts?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 13:32:10 UTC
From: raiar@bbs.galilei.com.nospam
Message-ID: <41751418.10834468@news.galilei.com>
Source record: 88098

Hi CIL

Where lightning will hit, if it hits, can almost be calculated with a fair degree of accuracy.

We did a small project in a college class and made a scale model of a small city. We knew from past history some of the structures that were hit and where. From this knowledge we made balls of certain sizes so they would touch if sitting on the ground the place that was actually hit. We ended up with only 4 such balls, each a similar size factor to the others.

On our scale model town we outlined in red lines the most likely places lightning would hit if it did hit in that area.

Every strike since that time, up until the project was abandoned, has hit somewhere on the red lines we have drawn.
One such line was on a small single story U-Stor-It building between two very tall radio station towers, that was assumed to be lightning proof due to it's location. It was hit and hit hard when neither tower was hit. We also indicated that if those towers were ever hit, the location on those towers where the lightning would hit them. Neither location was near the top either. Two small strikes to one of the towers were both within 1 foot of where our red line was indicated on the scale model.

We were so successful in our project we thought for sure some agency would pick it up and make use of it. But long after I was at school there, the project was abandoned with something like a record of 94% accuracy on pinpointing areas where lightning can hit.

TTUL
Gary

# 804. Re: Fractenna lashes out at hams using BPL

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 14:10:29 UTC
From: Mark <bigfathhairybiker@MAILhot.com>
Message-ID: <41751f36$0$16437$ed9e5944@reading.news.pipex.net>
Source record: 88099

Richard Clark" <kb7qhc@comcast.net> wrote in message
news:6dn7n01tlpm3of4vt1np92qvs3oe7m7e5p@4ax.com...
> On Mon, 18 Oct 2004 10:43:03 +0100, "Mark"
> <bigfathhairybiker@MAILhot(swapemround).com> wrote:
>
> >You know what the trouble is with us amateurs is ?
>
> Hi Mike,
>
> Sure, some of them don't know what "digital" is, your posting contains
> examples which follow below.
>
< SNIP >
> 73's
> Richard Clark, KB7QHC

Oh dear, my generalisations have yet again confused those of electronics
academia and has caused interpretation problems with a gargantuan
proportion.

Maybe my sentence " You know what the trouble is with us amateurs is? "
should
be changed to " You know what the trouble is with all those on this list is:
" ( followed by a list of every amateur in the world , but filtering out
those who don't reply to an extensive survey to find out if they would like
to be included in the generalisation "we". )

He casts... he waits... ( not long ) , and he reels them in...

## 805. Re: Is lighting nuts?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 14:15:09 UTC
From: richardharrison@webtv.net
Message-ID: <8845-4175216D-37@storefull-3253.bay.webtv.net>
Source record: 88100

CIL wrote:
"---is there anything I can do to fix this?"

Broadcasters have towers that are often struck by lightning. AM towers sit on base insulators which makes them vulnerable to static buildup too. Wind carries a static charge which falls out on the tower even when no lightning is present.

The shape and positions of charged clouds are constantly changing, so lightning strikes can come from anywhere.

The broadcaster starts his lightning protection at the tower top with a small lightning rod extending above and beyond the beacon to take the hit and avoid expensive repairs at the tower top.

Tower guy insulators are doubled and tripled where they connect to the tower so that static breakdown occurs to the earth instead of at the tower.

An air gap is installed across the base insulator to bypass a lightning hit to earth. Often a turn or two is made in the feed to the tower. This discourages lightning on the feedline and encourages breakdown of the gap across the insulator.

A static drain choke is often added if needed to provide a d-c path between the tower and the earth. It is used to bleed off charge which might build to dangerous levels.

"Lightning elimination" is a name given to mounting a large number of sharp points around a protected area in an attempt to drain the atmosphere of charge. The reviews are mixed.

I`ve worked in several broadcast stations hit by lightning nearly every time a charged cloud passed by. None ever caused significant damage. Al of the stations had lighted towers but their tower lighting chokes kept lightning off the a-c power source.

Berst regards, Richard Harrison, KB5WZI

## 806. Re: 60 meter dipoles

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 14:28:06 UTC
From: Ken Bessler <kg0wx@NOSPAMyahoo.com>
Message-ID: <2tkmjhF1uthmbU1@uni-berlin.de>
Source record: 88101

"jwb" <j.beltz@insightbb.com> wrote in message
news:N05dd.275746$D%.136492@attbi_s51...
> are there any good plans out there for the new band?
> thanks jack
>

What's to research? Just cut two 45' lenghts of wire,
string it up as a dipole & trim for resonance. Easy.

BTW you should hear how good WWV (5mhz) comes
in on such an antenna. Nice.

Ken KG0WX

## 807. Re: another lie

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 14:33:01 UTC
From: Wes Stewart <n7ws_@_yahoo.com>
Message-ID: <bu8an0tblljg9ejus9us2q8q1f2a6d7m7i@4ax.com>
Source record: 88102

On 19 Oct 2004 02:39:05 GMT, k3bu@aol.comNoUsama (Yuri Blanarovich)
wrote:

[snip]

|We pointed out the fallacies in the way EZNEC models the coil, examples were
|given how to get around using hairpin or coil modeled as a "helix" by breaking
|turns into segments.

There aren't any "fallacies". I showed how to model a distributed
inductor in an example back in January.

http://www.qsl.net/n7ws/

# 808. Re: Gain per unit length of boom

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 15:16:05 UTC
From: Wes Stewart <n7ws_@_yahoo.com>
Message-ID: <8m9an05khn66ir4s47o45bn3k6vhksvfvb@4ax.com>
Source record: 88103

On Sun, 17 Oct 2004 17:01:22 -0400, "G&R" makes a claim and opens
himself up to skewering:

|Hi Art,
|
|While this was the common theory many years ago, there other ways to get
|gain from an antenna other than boom length and number of elements.
|
|ie On 2m we are able to get 11.2 dBd on a 45inch boom with 3 elements
|stacked 2 wide. Yes, this is range tested see results at
|http://www.csvhfs.org/ant/CSANT04.HTML

Uh Oh! The measured data show 11.2 dBd, the advertising shows 13.97
dBd. I thought maybe I went to the Raibeam site by mistake but no, I
went here:

http://www.degendesigns.com/StackedVwave.htm

I love that precision BTW. I've done a fair amount of antenna range
testing using HP 8510s for measurement receivers and I've never been
able to establish gain within 1/100 dB.

But you can do it with a ham receiver and "subjective analysis".
Congratulations.

Since you're using two 45" booms spaced 58" apart, I would argue that
you should compare your design to a 148" boom Yagi and see what
happens.

How about posting your dimensions so we can see what modeling says
about them.

One further note: The Dataq DI-194 mentioned at:

http://www.degendesigns.com/Downloads.htm

WILL NOT work with all computers. This device is powered by the
serial port and my Toshiba laptops will not drive it.

# 809. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 15:32:19 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <7sadd.7705$6q2.3105@newssvr14.news.prodigy.com>
Source record: 88104

Yuri Blanarovich wrote:
>>Tom Donaly, KA6RUH wrote:
>>"There may be a difference in current along the coil, but it isn`t a
>>current drop."
>
>
> He wrote that about four times, what's the point of it? Smart Alec attitude?
>
> If there is something you believe is wrong and you know better, than please
> correct us stupid hams.
>
> Thanks for your patience Richard, KB5WZI, you are one of few decent posters
> here.
>
> 73 Yuri, K3BU

Why should I? You wouldn't believe me anyway since you and Richard are wedded to your own fractured version of electromagnetics. Besides, Tom Rauch does a good enough job on his web page.
73,
Tom Donaly, KA6RUH

# 810. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 15:54:39 UTC
From: richardharrison@webtv.net
Message-ID: <8843-417538BF-375@storefull-3253.bay.webtv.net>
Source record: 88106

Ian White, G3SEK wrote:
"An ideal loading inductance does "not" radiate."

A loading coil does not need to radiate to produce significant difference between the current at its ends.

The same power may be produced at various impedances. The product of the real voltage and the real current must be the same in all cases for the same power.

A loading coil experiences a different voltage to current ratio (impedance) at every point along its length.. This is due to the combination of forward and reflected volts and amps. Because of the reflection, their forward and reflected vectors are rotating in oposite directions. This makes every spot along the paths of these vectors unique with its own voltage to current ratio (impedance).

Cecil. W5DXP has already posted in some detail how the forward and reflected values encounter the incident values and their superposition produces a new impedance. That surely happens at the load end of a loading coil.

If the phase between the incident and reflected waves, at the coil to whip junction, makes a different impedance than that at the feed end of the coil, it is likely that the coil output current will be different from the coil input current That`s expected.

Best regards, Richard Harrison, KB5WZI.

# 811. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 15:58:17 UTC
From: k3bu@aol.comNoUsama
Message-ID: <20041019115817.25417.00001415@mb-m22.aol.com>
Source record: 88105

>
>Why should I? You wouldn't believe me anyway since you and Richard are
>wedded to your own fractured version of electromagnetics. Besides, Tom
>Rauch does a good enough job on his web page.
>73,
>Tom Donaly, KA6RUH
>
>

Thank you, you just 'splained yourself, one of those....

Yuri

## 812. Re: Gain per unit length of boom

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 16:15:22 UTC
From: "aunwin@insightbb.com"
Message-ID: <t4bdd.277152$D%.236528@attbi_s51>
Source record: 88107

Ian, All the points you made are very good especialy when you
stated that gain is ROUGHLY proportional to boom length and
then go on to mention "aperture'
The question I asked was very specific but not personal like the
presidential
debates this newsgroup uses the question as the basis for what they want to
say.
The reason I asked the specific question was to obtain a datum line for
antennas relative to gain and a well used term of boom length.
NEC programs can provide this basic if the latest revision is used
and the program is all encombassing.( Many are not)
Mention coupling and some experts go nuts
but NEC is all encompassing provides definitive answers that remove
measurement errors presently shown and cuts through a lot of garbage.
All encompassing is all important in that sufficient segments are available
together with the use of variuable dimensions as this gets away from use of
methods
to get around inadequacy of a particular program. You mention "aperture"
but I don.t believe it changes any results given by NEC. Others ridicule the
use of the term
critical coupling yet NEC shows that element currents can be changed via
coupling
and it is current placement that we are interested in, so why so much
redicule/
The same goes for element diameters NEC provides the correct construction
for
elements which is another important variable for gain
So in other words, a NEC curve would deflect most arguments and personal
agenders
from the beginning and if one supplies actual measurement that are contrary
to those of NEC
then we have a basis for truly specific debate. As somebody pointed out, one
slanging match
has been going on for more than eight years regarding the use of critical
coupling, another is
the subject of coils, actual measurement versus a manipulated program
calculation.
I pretty much have had it with excuses regarding inadequecies of some
programs,
If NEC is a really viable tool; then let us use it as a datum by using a NEC
program that
is all encompassing to judge measured claims against so hat true specific
can be judged.
It is possible after all that even NEC may obtain several more revisions

over time because of
actual measurement which can only aid all in the understanding of antennas
and the removal
of old wifes tales and private agendas that evolved prior to NEC.
Is it auguments that we yearn for on this newsgroup or true resolution of
ideas?
Art

"Ian White, G3SEK" <G3SEK@ifwtech.co.uk> wrote in message
news:y3mwA8GeQMdBFAiq@ifwtech.co.uk...
> aunwin@insightbb.com wrote:
> >I did not want to choose a curve that matches my modelling which you
> >can
> > when presented with three different curves all of which are formulated
> >at different
> > times by different people. I would have thought that the advent of NEC
> >would
> > render these curves redundant !
>
> The plot of many individual yagis does confirm the general idea of gain
> being roughly proportional to boom length, and that is a very important
> thing to understand.
clip

# 813. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 16:23:17 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <Vbbdd.32432$QJ3.18914@newssvr21.news.prodigy.com>
Source record: 88109

Ian White, G3SEK wrote:

> Tom Donaly wrote:
>
>> Richard Harrison wrote:
>>
>>> Tom Donaly, KA6RUH wrote:
>>> "There may be a difference in current along the coil, but it isn`t a
>>> current drop."
>>> Call it a decline if you don`t like the word drop.
>>> A wave traveling along an antenna induces current in the wire. This
>>> current causes radiation from the wire. A current traveling from
>>> "a" to "b" in the wire loses energy to
>>> radiation. The energy at "b" is less than the energy at "a" if the
>>> source is at "a".
>>> If the impedance at "a" is the same as the impedance at "b", the
>>> voltage
>>> and the current at "a" are larger than the voltage and current at "b".
>>> We don`t need energy to decline from "a" to "b" to have a current drop.
>>> We only need current to decline between "a" and "b". Yuri has
>>> demonstrated a "current drop" with r-f ammeters inserted at both ends of
>>> the loading coil. Analysis of the cause is not necessary to demonstrate
>>> a current drop.
>>> As straight wires are usually better radiators than the same wire in
>>> coils, I speculate that the current drop measured by Yuri is mostly due
>>> to the high impedance (High voltage, low current) on the output of the
>>> loading coil.
>>> Best regards, Richard Harrison, KB5WZI
>>>
>>
>> I would urge any young person who reads this and wants to understand
>> electromagnetics to get a good book on the subject, read what the
>> authors say, and forget what Richard just posted. He's all wrong.
>
>
> Well, not entirely, if he follows through the logic of what he says. An
> ideal loading inductance does *not* radiate; therefore the current at
> its two terminals *must* be the same.
>
> I keep coming back to the same point: until someone correctly
> understands what pure unadulterated inductance does in an antenna, he
> can never *truly* understand how a real-life loading coil works.
>
>

>
You're right about the understanding part Ian, but Yuri is trying to
make generalizations based
on the measured behavior of real coils without taking too much time
to analyze why the behavior of his coils departs from the ideal.
Making up terms, such as "current drop" to give more technical
credence to his ideas doesn't help. Richard's attempt to justify
Yuri's technical jargon is little more than pathetic.
73,
Tom Donaly, KA6RUH

## 814. help with partial reception

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 16:23:23 UTC
From: bertiaux@yahoo.com
Message-ID: <546afb93.0410190823.7547b600@posting.google.com>
Source record: 88108
Cross-posted to: sci.electronics.repair,rec.radio.amateur.antenna

need help understanding what is wrong with the reception of one channel. i have an old metal antenna on the house that works great for the strong local signals. years ago i added a small antenna that was designed to pull in one particular local channel. it is installed on the same pole, and plugs into a small box also on the pole that acts as a splitter i guess. anyway, regardless of whether i am running the signal into the vcr or the tv, all the powerful channels come in fine. however, this other one, channel 13 (Hmmm...) doesn't come in well unless i disconnect the coax from the tv, then very gently touch it to the connection on the back of the tv. the improvement is dramatic, but i'll be damned if i'm gonna watch tv this way. i don't understand why the same connection works great for the other channels, but not for this one. i have tried changing out the cable, using splitters, not using splitter, directly from wall, from vcr, etc. it never seems to come in unless i am holding the cable connection to the connector on the tv in this very specific way. what's going on? i know this station used to come in better, but now its crap. help. anyone?

## 815. Re: Is lighting nuts?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 16:38:24 UTC
From: k3bu@aol.comNoUsama
Message-ID: <20041019123824.25357.00001465@mb-m22.aol.com>
Source record: 88110

>
>I HAD a tower up on the north side of the house for about 15 years, it
>, top out at about 100feet. I built a 'tilt over' that is 52 feet tall
>with a mast of about 25, = 77 give or take. been 'up' about 1.5 years
>and lighting has 'hit' it twice. One was higher, never hit, this one
>is lower, hit is there anything I can do to 'fix this'? Lost
>antennas, need to do 'something'. thanks in advance. cl
> 73
>
>

Can you describe how each tower was configured at the top and how it was grounded?
What is important to know if the top ended up with sharp point (mast, VHF vertical antenna, etc.) or Yagi type antenna, like tribander etc. without anything pointy protruding above.

Yuri, K3BU

## 816. Re: Is lighting nuts?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 16:39:48 UTC
From: leaf <leaf@prosensing.com>
Message-ID: <tYGdnRoA3tjE3ujcRVn-jA@conversent.net>
Source record: 88111

I would suspect a poor grounding system on the tower. If the ground is a rod driven into the Earth, then the impedance needs to be as low as possible. Once the ground system takes a surge, glass crystalls will form in the dirt on and around the rod. The impedance then climbs and the number of strikes to the tower increase. The amount of impedance in your ground network determines the amount of static charge that can build on the tower and how fast the charge can bleed. The formula for calculating the bleed rate is 5 times (Resistance times Capacitance). The resistance is the ground impedance and the capacitance is the amount of surface area of the tower relative to the air flow over it (think of two plates on a capacitor with a dielectric between them). Any charge above that of the Earth makes that point more likely to get hit by lightning. The tower is only one item to concern yourself about because a floating antenna can be just as bad. Ground everything on the tower during a storm if it is not in operation such as a repeater. Surge arrestors on the antenna feeds then become imparative for repeater installations. A very large grounding system is required to mitigate the potential for lightning strikes on a tower. If a strike does occur, then the grounding structure needs to be able to dissipate the charge back into the Earth very quickly or the ground will be lost until the voltage on the ground falls. Again, R x C for the Earth.

Good Luck,
Frank N1SIF

<lorentsonci@lycos.com> wrote in message
news:1689n0tg9mnd8k5jef3m55gu8122irs23p@4ax.com...
> I HAD a tower up on the north side of the house for about 15 years, it
> , top out at about 100feet. I built a 'tilt over' that is 52 feet tall
> with a mast of about 25, = 77 give or take. been 'up' about 1.5 years
> and lighting has 'hit' it twice. One was higher, never hit, this one
> is lower, hit is there anything I can do to 'fix this'? Lost
> antennas, need to do 'something'. thanks in advance. cl
> 73

## 817. Re: Fractenna lashes out at hams using BPL

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 16:45:47 UTC
From: kelly@dvol.com
Message-ID: <d22b54c3.0410190845.64c8b687@posting.google.com>
Source record: 88112

kashe@sonic.net wrote in message news:<epe9n05us9lv1rv05skd4uaflsj89foq6j@4ax.com>...
> On Mon, 18 Oct 2004 22:34:16 GMT, Richard Clark <kb7qhc@comcast.net>
> wrote:
>
> >On 18 Oct 2004 14:38:24 -0700, kelly@dvol.com (Brian Kelly) wrote:
> >
> >>Speaking of news articles chew on this one Chipster:
> >>
> >>http://www.technewsworld.com/story/37378.html
> >>
> >
> >Hi Brian,
> >
> >From that story:
> > "Lastly, the commission indicated that access to BPL would
> > facilitate the ability of electric companies to manage the power
> > grid by delivering remote diagnosis of electrical failures."
>
>
> More likely so they can monitor usage so you have to get up at
> 3:30 am to do the laundry so business interests have daytime power to
> themselves.
>
> They'll likely also use it to shut off power for late paynment
> without the nuisance of a truck roll.

The power utilities have been remotely monitoring and controlling
their infrastructures for at least a couple decades with the SCADA
systems Clark mentioned. It's all political smoke & mirrors BS.

w3rv

# 818. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 16:47:46 UTC
From: k3bu@aol.comNoUsama
Message-ID: <20041019124746.25357.00001466@mb-m22.aol.com>
Source record: 88113

>Hi Yuri,
>
>And yet you are on Tom for just such a similar distinction of word
>choice. Does this illustrate the principles of reciprocity? ;-)
>
>73's
>Richard Clark, KB7QHC
>

Slight difference. Rauchians choose their words as weapons of smart ass attitude at "morons" who happen to be right, while Rs are wrong. They fail at the discussion of facts and arguments. I resort to (not too proud of it) responding and biting back in order to prove the point. There is reciprocity but not ideal, just like RF current behavior in real coil.
And he did it for the fifth time, go figure. Fuggetaboutit!

Yuri, K3BU

# 819. Re: Gain per unit length of boom

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 16:50:33 UTC
From: "aunwin@insightbb.com"
Message-ID: <tBbdd.420861$Fg5.153748@attbi_s53>
Source record: 88114

Wes,
You make the point quite well that I was trying to make before I read your post (written simultainiously)
and at the present time NEC is seen as judge absolute.
Yes there are many ways to increase gain but you cannot use a shackled NEC program to authenticate
the results and we often use such as a crutch.
On the subject of boom length
I was basing things on a single boom length where number, position and physical atributes of additionion elements
are brought into play to overcome program idequacies and provide correction of assigned dimensions to achieve maximum gain.(Is this to much to ask now that we have the NEC tool/)
To often the accusation comes up that computor input was incorrect or not enough segments provided e.t.c.
and a datum curve would prove a valuable tool, not only to those that use computor modelling but also
to experimentors who seek real world answers and possibly challenge the authenticicity of either methods
Thanks for the links,will read them later, have to get a flooooo shot now
Art

"Wes Stewart" <n7ws_@_yahoo.com> wrote in message
news:8m9an05khn66ir4s47o45bn3k6vhksvfvb@4ax.com...
> On Sun, 17 Oct 2004 17:01:22 -0400, "G&R" makes a claim and opens
> himself up to skewering:
>
> |Hi Art,
> |
> |While this was the common theory many years ago, there other ways to get
> |gain from an antenna other than boom length and number of elements.
> |
> |ie On 2m we are able to get 11.2 dBd on a 45inch boom with 3 elements
> |stacked 2 wide. Yes, this is range tested see results at
> |http://www.csvhfs.org/ant/CSANT04.HTML
>
> Uh Oh! The measured data show 11.2 dBd, the advertising shows 13.97
> dBd. I thought maybe I went to the Raibeam site by mistake but no, I
> went here:
>
> http://www.degendesigns.com/StackedVwave.htm
>
> I love that precision BTW. I've done a fair amount of antenna range
> testing using HP 8510s for measurement receivers and I've never been

> able to establish gain within 1/100 dB.
>
> But you can do it with a ham receiver and "subjective analysis".
> Congratulations.
>
> Since you're using two 45" booms spaced 58" apart, I would argue that
> you should compare your design to a 148" boom Yagi and see what
> happens.
>
> How about posting your dimensions so we can see what modeling says
> about them.
>
> One further note: The Dataq DI-194 mentioned at:
>
> http://www.degendesigns.com/Downloads.htm
>
> WILL NOT work with all computers. This device is powered by the
> serial port and my Toshiba laptops will not drive it.
>
>

## 820. Re: another lie

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 16:54:21 UTC
From: Chuck <wa7rai@raibeam.com>
Message-ID: <RJbdd.7939$6P5.7530@okepread02>
Source record: 88117

Richard Harrison <richardharrison@webtv.net> wrote in message
news:5078-417457BB-328@storefull-3256.bay.webtv.net...
> Chuck, WA7RAI wrote:
> "wrote:
> "And BTW, how does one model a receiving antenna in EZNEC?"
>
> No need. Antennas behave the same when receiving as when transmitting.
> So if you know how an antenna behaves when transmitting, you also know
> how it behaves when receiving.
>
> Best regards, Richard Harrison, KB5WZI
>

Of course, Richard, but the NEC manual says
it is capable, so I was wondering why this
function wasn't included in the EZNEC control
panel, since Roy is claiming his software is
a fully functional NEC application.

73 de Chuck, WA7RAI

# 821. Re: help with partial reception

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 16:55:49 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <q4han019gd9ecau40a0qmseuta5lcftm6l@4ax.com>
Source record: 88115
Cross-posted to: sci.electronics.repair,rec.radio.amateur.antenna

On 19 Oct 2004 09:23:23 -0700, bertiaux@yahoo.com (mediancat) wrote:
> i have tried changing out the cable, using splitters,
>not using splitter, directly from wall, from vcr, etc. it never seems
>to come in unless i am holding the cable connection to the connector
>on the tv in this very specific way. what's going on?

Hi OM,

When you are holding the cable in its odd way (and it works just
fine), then you have happened upon an unique combination that proves
you should be able to do it right. However, the question remains,
what are you doing wrong?

Is the new antenna pointed in the right direction? Try turning it
through all 360ï¿½ to see how that improves/degrades the situation.
This presumes you have all the right connections of course.

As you are using two antennas, how are you connecting them to the same
TV or VCR? As you have tried this antenna individually and still
found no happy conclusion, it would seem to be an elemental problem.

How far away is this station you are trying to get?

What kind of neighborhood are you in (city/suburb/rural)?

Are there path issues like hills?

Is this a matter of a snowy picture, or one that is broken up with
multiple images, or...?

What kind of line are you using? Twin lead (flat ribbon) or Coax
(round, thick cable)?

73's
Richard Clark, KB7QHC

# 822. Re: help with partial reception

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 16:58:52 UTC
From: jakdedert <jdedert@bellsouth.net>
Message-ID: <cGbdd.85087$yp.67858@bignews1.bellsouth.net>
Source record: 88116
Cross-posted to: sci.electronics.repair,rec.radio.amateur.antenna

mediancat wrote:
> need help understanding what is wrong with the reception of one
> channel. i have an old metal antenna on the house that works great for
> the strong local signals. years ago i added a small antenna that was
> designed to pull in one particular local channel. it is installed on
> the same pole, and plugs into a small box also on the pole that acts
> as a splitter i guess. anyway, regardless of whether i am running the
> signal into the vcr or the tv, all the powerful channels come in fine.
> however, this other one, channel 13 (Hmmm...) doesn't come in well
> unless i disconnect the coax from the tv, then very gently touch it to
> the connection on the back of the tv. the improvement is dramatic,
> but i'll be damned if i'm gonna watch tv this way. i don't understand
> why the same connection works great for the other channels, but not
> for this one. i have tried changing out the cable, using splitters,
> not using splitter, directly from wall, from vcr, etc. it never seems
> to come in unless i am holding the cable connection to the connector
> on the tv in this very specific way. what's going on? i know this
> station used to come in better, but now its crap. help. anyone?

Although you've provided a good bit of detail, some questions still arise: just 'how' do you "touch the coax to the connection?" Are you touching just the inner conductor to the outside of the connector, or the inner conductor to the inner connection on the connector (not allowing the ground to make contact)? Are you touching the coax connector on the TV at all...perhaps instead the 300 ohm (if any) connectors?

Without being a bit more specific, I doubt anyone's going to be able to help you. For one thing, I don't understand how the two antennas are connected on the pole in such a manner as to preclude interaction (perhaps a ch. 13 trap in series with the 'all channel' antenna before the splitter/combiner?).

In any case, your problem is probably 'up the pole.' If it worked before, i t should work now; unless conditions have changed. Have any tall buildings been constructed between you and the transmitter?

My best advice would be to have the same people who installed the array (or other competant service people) service it. It sounds like your technical knowledge is limited, and I doubt you're going to want to climb that pole...

...or get cable.

jak

## 823. Re: Is lighting nuts?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 17:01:03 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <bphan018jchlfm801bdoc50a9a66592m64@4ax.com>
Source record: 88119

On 19 Oct 2004 09:32:10 EDT, raiar@bbs.galilei.com.nospam (Gary V. Deutschmann, Sr.) wrote:
>It was hit and hit hard when neither tower was hit.

Hi Gary,

If lightning strikes a tower, and it doesn't burn down, did any power dissipate? (Apologies to the trees falling in the forest cliche.)

How did your team "know" what was struck?

73's
Richard Clark, KB7QHC

## 824. Re: another lie

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 17:03:10 UTC
From: Chuck <wa7rai@raibeam.com>
Message-ID: <RJbdd.7940$6P5.7552@okepread02>
Source record: 88118

Roy Lewallen <w7el@eznec.com> wrote in message
news:10n8mg4km2cau41@corp.supernews.com...
> If any EZNEC customer is interested in the answers to these or other
> questions about EZNEC, please email me and I'll be glad to answer them.
> (My only request is that before asking any question about EZNEC, you
> make an honest effort to find the answer in the manual. That's the only
> way I can possibly provide the level of support my customers deserve.)
>
> I have the strong feeling that Chuck isn't nearly so interested in the
> inner workings of EZNEC as he is in simply being as big a nuisance to me
> as he can. After all, he's said how horrible he thinks the EZNEC
> interface is, and has never purchased it. And I've been guilty of
> encouraging his being a nuisance by responding. I apologize to the other
> readers for this.
>
> I've wasted much more time with Chuck than he deserves. From here on,
> let Chuck, Art, Chip, and Yuri will have to vent their frustrations
> without me. I will continue to try to contribute positively to the
> newsgroup as I have (tried) in the past. Ignoring Chuck is a necessary
> step in doing so.

Good grief, Roy...

I asked honest and valid questions,
seeking honest and valid answers.
Instead, I get this pejorative, and rather
disingenuous diatribe.

My obtaining a legal copy of your
software - with your full knowledge, I
might add - was for evaluation purposes
only. It is common opinion, that your
DOS interface was less then desirable.

Considering this highly unusual reaction
to my questions, It's not unreasonable
for me to now assume that you left out
the thin-wire model. Surely you weren't
thinking it was superfluous and no one
would really need to use it. Perhaps you
were just concerned about speed and
memory back in the days of the 80386.

* [p 72, NEC2d documentation] "The
* explicit transmission line model is, of
* course, less efficient in computer time

* and storage because of the additional
* segments required."

I have for a long time, suspected there
was a tx line modeling problem in NEC.
Now, it is apparent this problem exists
only in your EZNEC.

Tort liabilities aside (that's not my
concern here) let me suggest that it
may be in your best interest to address
this issue, not covertly as you seem to
be suggesting, but openly, in a way that
will illuminate your honesty and integrity.

73 de Chuck, WA7RAI

## 825. Re: another lie

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 17:06:36 UTC
From: k3bu@aol.comNoUsama
Message-ID: <20041019130636.25357.00001467@mb-m22.aol.com>
Source record: 88120

>
>Hi Yuri,
>
>You fail to attribute WHO provided those "breaking turns into
>segments" which was/is/isn't(?) documented at your
>current/former/removed(?) page as myself and Roy. Making this a part
>of the current software version is hardly the epiphany of a visitation
>seeking the absolution from sin.
>
>As I pointed out before, nothing new has been added and the fire has
>been drowned in spit.
>
>73's
>Richard Clark, KB7QHC
>

How eloquently formulated and true. Xcuse my sloppynessss. You and W4RNL showed when coil is modeled as wire running around in circles with reasonable segmentation, the current is modeled very close to reality - different at both ends and not equal. Anybody can verify that with HELIX feature in EZNEC 4.08.

Actually there is another cudo to you for the treatment of space impedance and interaction with antenna impedance. I have questioned that way back and was shut off as ridiculous (Roy?). Your color pictures are very illustrative.

Another "silly me" try at using term of "electrical length of conductor or antenna element" vs. physical, was poo-poohed by Roy - no such thing in textbooks. Regardles, I keep using it, makes sense, especially with insulated wires and oddball conductors.

I apologize for not doing the promised article, life has been just too much here, but I keep hoping for better days and nicer weather. We have acquired lovely beachfront QTH at the Jersey shore, across the bay with potential of having superb antenna test field. This is next to 170 acre Rhombic antenna farm. Looking forward to fooling around with some crazy things.

73 Yuri, K3BU

## 826. Re: another lie

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 17:10:49 UTC
From: k3bu@aol.comNoUsama
Message-ID: <20041019131049.25357.00001468@mb-m22.aol.com>
Source record: 88021

>
>
>There aren't any "fallacies". I showed how to model a distributed
>inductor in an example back in January.
>
>http://www.qsl.net/n7ws/

Just look at the "proof" at W8JI web site. He still has the example how not to model the coil and sticks by it along with bunch of followers.

Thanks from "our" camp for your input Wes!

Yuri, K3BU

# 827. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 17:18:19 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <P63vTMTbxUdBFAFb@ifwtech.co.uk>
Source record: 88023

Richard Harrison wrote:
>Ian White, G3SEK wrote:
>"An ideal loading inductance does "not" radiate."
>
>A loading coil does not need to radiate to produce significant
>difference between the current at its ends.
>
Those two paragraphs, one right after the other, say it all. You want to gallop straight on to talk about "loading coils".

I want you to stop and think a moment, about how an IDEAL INDUCTANCE behaves in an antenna. (Sorry to shout, but every time I type "ideal inductance" quietly, you seem to read something else :-)

Hopefully you will agree that an IDEAL INDUCTANCE does not ever have different currents at its two terminals, and does not radiate either.

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

## 828. Re: another lie

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 17:21:28 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <o4ian0htujqsq2ieoqvnleg6vveshaab56@4ax.com>
Source record: 88022

On Tue, 19 Oct 2004 10:03:10 -0700, "Chuck" <wa7rai@raibeam.com>
wrote:

>I have for a long time, suspected there
>was a tx line modeling problem in NEC.
>Now, it is apparent this problem exists
>only in your EZNEC.
>

Hi Chuck,

You asked how to avoid this (if indeed it exists), and I offered a very simple response to which you have had no comment. You continue this "claim" of a problem and yet with very simple modeling alternatives to prove it (aside from testimonials) you have yet to achieve this proof or demonstrate you have even attempted a resolution. Is this because it is not in your interest?

Roy has offered a means to have a third party verify your claims, independent of his software such that it comes down to you are right, or he is right. You have not taken this offer either and it seems, given the expense, you either cannot afford to be right (which would be fully funded by Roy) or you cannot afford to be wrong (which would be fully funded by you). Any "expense" grievance leans towards the second interpretation.

You also had another offer to range test, but I can full well appreciate your backing off from that in overdrive. Any such offers should be closely attended by "Who owns the intellectual rights to the results?" If you claimed X gain and the test demonstrated X+1 results because of "simple adjustments" at the site, "Who owns the intellectual rights to the results AND the "new" antenna?" If you attempted to publish the results (assuming they were complementary) would you be threatened with plagiarism and copyright violation?

Answers to these questions may be researched at the Google Archives by simply entering the search terms of "Patent Pending," "you may be sued," "my lawyer will contact your lawyer," "intellectual property." Once you use any one of these phrases (or all of them - it constitutes one of our best Soap Operas), simply sort on the basis of author hits to see who holds the record for these issues as a business manifesto.

It won't be Roy.

There seem to be solutions in the queue, what remains to be seen is if one or several are visited, or if future communication will be stuck in the groove of repetition and denial.

73's
Richard Clark, KB7QHC

# 829. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 17:33:48 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <k8jan05u2dck0028436j052gvmfheirj3i@4ax.com>
Source record: 88024

On 19 Oct 2004 16:47:46 GMT, k3bu@aol.comNoUsama (Yuri Blanarovich)
wrote:

Hi Yuri,

>Slight difference. Rauchians choose their words as weapons of smart ass
>attitude at "morons" who happen to be right, while Rs are wrong.
This is the trivial difference.
>They fail at the discussion of facts and arguments.
This is the Rauchian difference.

I will agree in this respect, but not all Toms are Rauchs. The term
"Current Drop" is abhorrent to some (a pollution of technical
language), an irritant to others, and inconsequential to many who
simply enjoy the cat fight.

I can take only so much of the technical pollution. The breaking
point for me is when foreign terms are elevated to prayer status and
made icons of a new theory. This, for you, I presume constitutes much
the same issue as
>They fail at the discussion of facts and arguments.
which you are closely mimicking in the tedious and insistent manner of
upholding a foreign usage. You agreed that Tom (Rauch) could have as
easily chosen better language, the same resolution is afforded in this
current contretemps too.

A simpler resolution is to simply drop it and move on.

73's
Richard Clark, KB7QHC

## 830. Re: another lie

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 17:37:07 UTC
From: fractenna@aol.com
Message-ID: <20041019133707.17556.00001112@mb-m01.aol.com>
Source record: 88025

>You also had another offer to range test, but I can full well
>appreciate your backing off from that in overdrive. Any such offers
>should be closely attended by "Who owns the intellectual rights to the
>results?" If you claimed X gain and the test demonstrated X+1 results
>because of "simple adjustments" at the site, "Who owns the
>intellectual rights to the results AND the "new" antenna?" If you
>attempted to publish the results (assuming they were complementary)
>would you be threatened with plagiarism and copyright violation?
>
>Answers to these questions may be researched at the Google Archives by
>simply entering the search terms of "Patent Pending," "you may be
>sued," "my lawyer will contact your lawyer," "intellectual property."
>Once you use any one of these phrases (or all of them - it constitutes
>one of our best Soap Operas), simply sort on the basis of author hits
>to see who holds the record for these issues as a business manifesto.
>
>It won't be Roy.
>
>There seem to be solutions in the queue, what remains to be seen is if
>one or several are visited, or if future communication will be stuck
>in the groove of repetition and denial.
>
>73's
>Richard Clark, KB7QHC
>

As far as I'm concerned, the results are for Chuck to do what he wants with;
I'm just volunteering time, range, and equipment.

And, if Mr. Lewallen wants a proxy, he can get his colleague Steve Best to come
down. Steve works about 1/2 mile from here.

Of course, should Chuck's results be compatible with his specs, then it seems
that a third party must pay the bill.

That sure seems fair to me.

No one is frustrated, as far as I am aware of.

Why are you trying to create problems that don't exist, Mr. Clarke?

73,
Chip N1IR

## 831. Re: another lie

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 17:51:09 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <kokan0louu3mv61id9rls2h327dhtemh9f@4ax.com>
Source record: 88026

On 19 Oct 2004 17:06:36 GMT, k3bu@aol.comNoUsama (Yuri Blanarovich)
wrote:

> Looking forward to fooling around with some crazy things.

Hi Yuri,

There is considerable merit in that too.

I hope you were reading my recent correspondence about digital RF
sources (seems like it would be a natural for your own digital
project).

Well, as for fooling around, I'm off to the campus for more Nanotech.

73's
Richard Clark, KB7QHC

# 832. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 17:57:15 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41755399_4@127.0.0.1>
Source record: 88027

Ian White, G3SEK wrote:
> An
> ideal loading inductance does *not* radiate; therefore the current at
> its two terminals *must* be the same.

This is misleading. Since virtually all coil-loaded mobile antennas
are *STANDING WAVE* antennas, there are two current components which
superpose to your total current. Let's assume a certain loading coil
does not radiate. The forward current is the same magnitude at the
bottom of the coil and at the top of the coil. The reflected current
is the same at the bottom of the coil and at the top of the coil.
There is a phase shift through the coil that affects both those
currents. The total current is the phasor sum of the forward current
and reflected currents. That phasor sum is different at the bottom
of the coil and at the top of the coil. The constant current principle
definitely applies but there are two component currents with phase
shifts to worry about, just as there are in a transmission line with
reflections.

Do you use circuit analysis on a transmission line with reflections?
If not, why do you use circuit analysis on an antenna with reflections?

> I keep coming back to the same point: until someone correctly
> understands what pure unadulterated inductance does in an antenna, he
> can never *truly* understand how a real-life loading coil works.

Ian, using circuit analysis on a standing-wave antenna is not valid.
Until someone correctly understands that only a distributed network
analysis works on a standing-wave antenna, he can never *truly* understand
how a real-life loading coil works. Hint: When installed in a standing-
wave antenna, a loading coil works like a transmission line so circuit
analysis is an invalid approach. The cosine current distribution on a
1/2WL standing-wave antenna is just 180 degrees of a standing current
wave which necessarily must possess two superposed current components,
forward and reflected.

This is just another example of an invalid math model trying to
dictate reality instead of reality dictating a valid math model.

Until someone understands the nature of forward current and reflected
current on standing-wave antennas, one will remain confused and be
tempted to use that invalid circuit model.

Your circuit model can be used on traveling-wave antennas. It is NOT
valid for standing-wave antennas.
--

73, Cecil http://www.qsl.net/w5dxp

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# 833. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 18:00:11 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41755447$1_4@127.0.0.1>
Source record: 88028

Tom Donaly wrote:
> Besides, Tom Rauch does a good enough job on his web page.

Tom Rauch uses a circuit analysis when he should be using a
distributed network analysis. That's an easy mistake to make
and a hard mistake to admit.
--
73, Cecil http://www.qsl.net/w5dxp

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# 834. Re: Gain per unit length of boom

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 18:02:18 UTC
From: G&R <spam@limbo.hell>
Message-ID: <IEcdd.24632$J16.915304@news20.bellglobal.com>
Source record: 88030

Hi Wes,

Yes I am aware of the difference between the advertising on the site and the range results.

As you are aware antennas do not have even gain across the entire band. We have designed the antenna to cover the entire 2m band and as a result do see a variation in the perfromance across the band, hence max gain.

And before you cut down my comments, the precision on the results are from the softare and we are in the process of redesigning the format to more accurately reflect our actual results both modelled and actual. Unfortunately our business is antennas and web design.

The results posted on the CSVHF society are valid as the antenna was tested with a gain of 11.2dBd at 144.18MHz Horiz Polarization. Design Freq is 146.0MHz.

We are in the business of designing and selling antennas not developing antennas and giving them away for free. However, if your serious about the data for the antenna contact me directly so that we can discuss the details (email listed below).

As to the DATAQ, well I have no answer for that one, as we don't build it or sell it. Our software is designed to with run it. Strange though, my Toshiba does and so does my SONY through a USB to SERIAL converter.

One final point, the purpose of the posting was that identify that an antenna does not always need boom length and elements for gain and that there are other ways to achieve this.

Respectfully,

Guenther VE3CVS
info@degendesigns.com
www.degendesigns.com

"Wes Stewart" <n7ws_@_yahoo.com> wrote in message
news:8m9an05khn66ir4s47o45bn3k6vhksvfvb@4ax.com...
> On Sun, 17 Oct 2004 17:01:22 -0400, "G&R" makes a claim and opens
> himself up to skewering:
>
> |Hi Art,
> |
> |While this was the common theory many years ago, there other ways to get
> |gain from an antenna other than boom length and number of elements.
> |

> |ie On 2m we are able to get 11.2 dBd on a 45inch boom with 3 elements
> |stacked 2 wide. Yes, this is range tested see results at
> |http://www.csvhfs.org/ant/CSANT04.HTML
>
> Uh Oh! The measured data show 11.2 dBd, the advertising shows 13.97
> dBd. I thought maybe I went to the Raibeam site by mistake but no, I
> went here:
>
> http://www.degendesigns.com/StackedVwave.htm
>
> I love that precision BTW. I've done a fair amount of antenna range
> testing using HP 8510s for measurement receivers and I've never been
> able to establish gain within 1/100 dB.
>
> But you can do it with a ham receiver and "subjective analysis".
> Congratulations.
>
> Since you're using two 45" booms spaced 58" apart, I would argue that
> you should compare your design to a 148" boom Yagi and see what
> happens.
>
> How about posting your dimensions so we can see what modeling says
> about them.
>
> One further note: The Dataq DI-194 mentioned at:
>
> http://www.degendesigns.com/Downloads.htm
>
> WILL NOT work with all computers. This device is powered by the
> serial port and my Toshiba laptops will not drive it.
>
>

# 835. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 18:16:11 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41755809$1_4@127.0.0.1>
Source record: 88029

Tom Donaly wrote:
> Making up terms, such as "current drop" to give more technical
> credence to his ideas doesn't help. Richard's attempt to justify
> Yuri's technical jargon is little more than pathetic.

There doesn't need to be a current drop through a coil for the
total current to be different at each end. Assume a base-loaded
mobile system. Assume the forward current through the coil is
constant at 1.1 amp. Assume the reflected current through the coil
is constant at 1.0 amp. Assume the phase shift through the coil is
45 degrees.

If the forward current and reflected current are in phase at the
base of the coil (feedpoint) the total current will be

1.1+1.0 = 2.1 amps of total current at the base of the coil.

The total current at the top of the coil will be

1.1 amps at -45 degrees superposed with 1.0 amps at +45 degrees.

1.1*cos(-45) + 1.0*cos(45) = 1.48 amps.

The coil is lossless and the component currents are absolutely
constant through the coil yet the superposed total current at
the top of the coil is only about 71% of the superposed total
current at the bottom of the coil. No "technical jargon" involved.

Using circuit analysis on a distributed network problem simply
demonstrates ignorance of the problem. It's an easy mistake to
make and a hard mistake to admit.
--
73, Cecil http://www.qsl.net/w5dxp

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## 836. Re: Gain per unit length of boom

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 18:27:42 UTC
From: Jimmie <Gfender@carolina.rr.com>
Message-ID: <y0ddd.68195$ci3.4056470@twister.southeast.rr.com>
Source record: 88031

A graph from NEC data is going to be pretty much like a graph from the ARRL books. By putting the data in a graphic form your are placing the same limits on the data as they had to in the ARRL books. The ARRL graphs give you a pretty good idea of what goes on when you change element spacing, number of elements and so on. What they dont do is alllow you to perform optimization like the NEC programs . Graphing a NEC program output would be the same as going back to the time all you had was the graphs to go by unless you are willing to do all the calculations on your slide rule or calculator. What I am saying is that you already have this data. No point in reinventing the wheel.Unless you think yiou can get a patent on it.

"aunwin@insightbb.com" <aunwin@insightbb.com@insightbb.com> wrote in message news:65Zcd.150611$He1.116446@attbi_s01...
> Jimmy,
> I did not want to choose a curve that matches my modelling which you can
> when presented with three different curves all of which are formulated at
> different
> times by different people. I would have thought that the advent of NEC
> would
> render these curves redundant !
> Art
>
> "Jimmie" <Gfender@carolina.rr.com> wrote in message
> news:eMRcd.66272$ci3.3918146@twister.southeast.rr.com...
> >
> > "aunwin@insightbb.com" <aunwin@insightbb.com@insightbb.com> wrote in
> message
> > news:xOzcd.263953$D%.243703@attbi_s51...
> > > My ARRL books go back a decade or more
> > > and the graph showing gain per boom length
> > > has several curves based on different measurements
> > > e.t.c. Has a graph been made based solely on NEC
> > > program findings over say a perfect ground and at a uniform height?
> > > Art
> > >
> > >
> > They probably have been done but there will not be much difference
between
> > them and the ARRL graphs. Its been long known how to calculate antenna
> gain,
> > computers just take the teadous labor out of it.
> >
> >
>

>

## 837. Re: another lie

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 18:39:09 UTC
From: k3bu@aol.comNoUsama
Message-ID: <20041019143909.28581.00001913@mb-m20.aol.com>
Source record: 88032

>
>I hope you were reading my recent correspondence about digital RF
>sources (seems like it would be a natural for your own digital
>project).
>
>Well, as for fooling around, I'm off to the campus for more Nanotech.
>
>73's
>Richard Clark, KB7QHC

Thanks! Yes, I am trying to keep up with all the new stuff, plus some older, I have been out of main stream circuit design for a while, but looks like the timing is just like back then on the trehshold between sparks and tubes. One think that our dual channel DSPed RX will allow is to stear the antenna patterns and some far out noise elimination and processing.

We have standing invitation to the brightest minds among hams to contribute or participate in the Dream Radio One project. www.computeradio.us

Yuri, K3BU

# 838. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 18:39:24 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41755d81_4@127.0.0.1>
Source record: 88033

Ian White, G3SEK wrote:
> I want you to stop and think a moment, about how an IDEAL INDUCTANCE
> behaves in an antenna. (Sorry to shout, but every time I type "ideal
> inductance" quietly, you seem to read something else :-)

Ian, please take your own advice. It's pretty obvious that you are thinking about an IDEAL INDUCTANCE in terms of a lumped circuit analysis which is invalid when analyzing a STANDING-WAVE ANTENNA. The equations governing the behavior of a standing-wave antenna are similar to the equations governing the behavior of a lossy transmission line with reflections. In fact, just by looking at the equations, you cannot tell whether they apply to a transmission line with reflections or to a standing-wave antenna.

Hint1: Write the equation for the total current on a standing-wave antenna that includes forward and reflected currents and "loss" due to radiation.

Hint2: A real-world mobile loading coil acts like a section of transmission line where Z0=SQRT(L*C). It does NOT act like a lumped circuit inductance.

Hint3: An IDEAL INDUCTANCE doesn't exist in reality. Lumped circuit inductances are a shortcut that doesn't exist in reality and surely does NOT apply to distributed networks like a standing-wave antenna.

> Hopefully you will agree that an IDEAL INDUCTANCE does not ever have
> different currents at its two terminals, and does not radiate either.

Can't agree to that at all. In fact, here's a repeat from another posting that proves that the superposed forward and reflected currents at each end of a lossless inductance *cannot* be equal. Please don't use the copout excuse that an ideal lumped inductance doesn't have any phase shift through it. *ALL* real-world loading coils have a phase shift that can easily be measured. If it has any phase shift at all, the current magnitudes at each end of the coil *cannot* be equal unless a current min/max occurs in the middle of the coil which doesn't happen in a typical mobile antenna.

P.S. How about discussing the technical issues instead of the personalities involved?

There doesn't need to be a current drop through a coil for the total current to be different at each end. Assume a base-loaded mobile system. Assume the forward current through the coil is constant at 1.1 amp. Assume the reflected current through the coil is constant at 1.0 amp. Assume the phase shift through the coil is 45 degrees.

If the forward current and reflected current are in phase at the
base of the coil (feedpoint) the total current will be

1.1+1.0 = 2.1 amps of total current at the base of the coil.

The total current at the top of the coil will be

1.1 amps at -45 degrees superposed with 1.0 amps at +45 degrees.

1.1*cos(-45) + 1.0*cos(45) = 1.48 amps.

The coil is lossless and the component currents are absolutely
constant through the coil yet the superposed total current at
the top of the coil is only about 71% of the superposed total
current at the bottom of the coil. No "technical jargon" involved.

Using circuit analysis on a distributed network problem simply
demonstrates ignorance of the problem. It's an easy mistake to
make and a hard mistake to admit (especially for gurus :-).
--
73, Cecil http://www.qsl.net/w5dxp

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## 839. Re: Gain per unit length of boom

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 18:46:12 UTC
From: Jimmie <Gfender@carolina.rr.com>
Message-ID: <Uhddd.68197$ci3.4056896@twister.southeast.rr.com>
Source record: 88034

"aunwin@insightbb.com" <aunwin@insightbb.com@insightbb.com> wrote in message
news:t4bdd.277152$D%.236528@attbi_s51...
> Ian, All the points you made are very good especialy when you
> stated that gain is ROUGHLY proportional to boom length and
> then go on to mention "aperture'
> The question I asked was very specific but not personal like the
> presidential
> debates this newsgroup uses the question as the basis for what they want
to
> say.
> The reason I asked the specific question was to obtain a datum line for
> antennas relative to gain and a well used term of boom length.
> NEC programs can provide this basic if the latest revision is used
> and the program is all encombassing.( Many are not)
> Mention coupling and some experts go nuts
> but NEC is all encompassing provides definitive answers that remove
> measurement errors presently shown and cuts through a lot of garbage.
> All encompassing is all important in that sufficient segments are
available
> together with the use of variuable dimensions as this gets away from use
of
> methods
> to get around inadequacy of a particular program. You mention "aperture"
> but I don.t believe it changes any results given by NEC. Others ridicule
the
> use of the term
> critical coupling yet NEC shows that element currents can be changed via
> coupling
> and it is current placement that we are interested in, so why so much
> redicule/
> The same goes for element diameters NEC provides the correct construction
> for
> elements which is another important variable for gain
> So in other words, a NEC curve would deflect most arguments and
personal
> agenders
> from the beginning and if one supplies actual measurement that are
contrary
> to those of NEC
> then we have a basis for truly specific debate. As somebody pointed out,
one
> slanging match
> has been going on for more than eight years regarding the use of critical
> coupling, another is

> the subject of coils, actual measurement versus a manipulated program
> calculation.
> I pretty much have had it with excuses regarding inadequecies of some
> programs,
> If NEC is a really viable tool; then let us use it as a datum by using a
NEC
> program that
> is all encompassing to judge measured claims against so hat true
specific
> can be judged.
> It is possible after all that even NEC may obtain several more revisions
> over time because of
> actual measurement which can only aid all in the understanding of antennas
> and the removal
> of old wifes tales and private agendas that evolved prior to NEC.
> Is it auguments that we yearn for on this newsgroup or true resolution of
> ideas?
> Art
>
>
>
> "Ian White, G3SEK" <G3SEK@ifwtech.co.uk> wrote in message
> news:y3mwA8GeQMdBFAiq@ifwtech.co.uk...
> > aunwin@insightbb.com wrote:
> > >I did not want to choose a curve that matches my modelling which you
> > >can
> > > when presented with three different curves all of which are formulated
> > >at different
> > > times by different people. I would have thought that the advent of NEC
> > >would
> > > render these curves redundant !
> >
> > The plot of many individual yagis does confirm the general idea of gain
> > being roughly proportional to boom length, and that is a very important
> > thing to understand.
> clip
>
>
There is no direct connection between boom length and gain. This is because
lengthing the boom also implies one has added elements and possibly made
adjustments to element spacing. A good source of the data you seek may be an
antenna catalog(or manufacturers web site). compare the published gains of
the different length antennas.

# 840. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 18:48:44 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41755fac_4@127.0.0.1>
Source record: 88035

Richard Clark wrote:
> I will agree in this respect, but not all Toms are Rauchs. The term
> "Current Drop" is abhorrent to some (a pollution of technical
> language), an irritant to others, and inconsequential to many who
> simply enjoy the cat fight.

Heh, heh, so you don't believe there is a current drop between the current maximum point and current minimum point on a transmission line with reflections? Seems to me going from 2 amps at a current maximum to 0.1 amps at a current minimum is a measurable drop in total current.

Would you please provide a proof that going from 2 amps to 0.1 amps is NOT a drop in total current?

Just one more example of trying to use lumped circuit analysis methods on distributed network problems. Are you guys ever going to learn?

Hint: With distributed networks involving an appreciable percentage of a wavelength, there are definitely current drops in the series loop. This certainly applies to 75m Bugcatcher coils used on standing-wave mobile antennas.
--
73, Cecil http://www.qsl.net/w5dxp

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## 841. Re: Is lighting nuts?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 19:04:13 UTC
From: CIL <lorentsonci@lycos.com>
Message-ID: <5aoan0dvd1k1jv6go8phtfpbb78lg049id@4ax.com>
Source record: 88036

>I would suspect a poor grounding system on the tower. If the ground is a
rod driven into the Earth, then the impedance needs to be as low as
possible. Once the ground system takes a surge, glass
(( (crystalls?)))
will formin the dirt on and around the rod. The impedance then climbs
and the numberof strikes to the tower increase. The amount of
impedance in your groundnetwork determines the amount of static charge
that can build on the towerand how fast the charge can bleed.

(((The tower sites are only about 100 feet apart, ground substance is
the same, clay/rocks, 1st foot then clayï¿½ï¿½ The first tower ground, is
a 4 ft hole, with ï¿½" rebar then driven deeper,1.5ft, w/ horz bars 1ft
on center from bottom of hole to top, where a ï¿½ steel plate was welded
to vertical bars, and to the plate, strong hinge plate connected to 25
rohn tower. The 'other site', is two 4" pipe, 5ft, in the ground, and
welded to fence. Fence is 2"2/8 upset tubing that goes around
property/everything welded. ((fence is 5 foot tall) and as stated part
of the 'gournding system',,,? The first 'site' was not connected to
the primenter fence,,problem???)) If you are familur with the ''bird
tilting over and drinking from the cup", you can picture in your minds
eye, my 'tilting tower'. It is about 75ft tall, with a uhf/vhf duel
band at top of mast, four ft. below that is a two meter horz omni
ground plane.)))

Can you describe how each tower was configured at the top and how it
was grounded? What is important to know if the top ended up with sharp
point (mast, VHF vertical antenna, etc.) or Yagi type antenna, like
tribander etc. without anything pointy protruding above.
Yuri, K3BU

((( Both towers carried almost the same 'items', vhf/uhf , and 4 ft
below that, clover leaf horz ground plane.)))

but their tower lighting chokes kept
lightning off the a-c power source.

((( What do you call these chokes, I know I have read about, but at
the moment I am blank.)))

The broadcaster starts his lightning protection at the tower top with
a small lightning rod extending above and beyond the beacon to take
the hit and avoid expensive repairs at the tower top.

((( Is this something like the antennas I have seen that have a
'center core' copper rod???)))

Tower guy insulators are doubled and tripled where they connect to the tower so that static breakdown occurs to the earth instead of at the tower.

((( Where do I 'see/read' about this??)))

One such line was on a small single story U-Stor-It building between two very tall radio station towers, that was assumed to be lightning proof due to it's location. It was hit and hit hard when neither tower was hit

ï¿½ï¿½"How did your team "know" what was struck?

"""ï¿½my question was and is,,,, why?

((((((((((((((((((This statement is the one that makes the most sense to me))))))))))))))))

Lightning is Female. 20 million volts & 100 thousand Amps will do as it damm
well pleases!

((((Last, but not least,,,,,,, thank you, WILL implement input, cl&73))))

## 842. New On-Line Hamfest

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 19:14:21 UTC
From: Kb2sin <kb2sin@stny.rr.com>
Message-ID: <hlddd.311473$bp1.248566@twister.nyroc.rr.com>
Source record: 88038

Check it out!!! I have set up a New Group for Amateur Radio Operators around the World! A Place where Amateur Radio Operators can Sell, Trade, or Give Away their unwanted Equipment. Here is the Url: http://groups.yahoo.com/group/northeast_hamfest/

Join today!!!!!
73's de kb2sin

--

# 843. Re: EH-antenna: sensation or fraude?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 19:22:02 UTC
From: bozidar.pasaric@ri.htnet.hr
Message-ID: <1glwcr1.1b77kxipees80N%bozidar.pasaric@ri.htnet.hr>
Source record: 88037

Richard Clark <kb7qhc@comcast.net> wrote:

>
> There is not one shred of science in any of this - except the words
> they use to disguise the fraud.
>
> 73's
> Richard Clark, KB7QHC

Sorry, the previous message went out only partially. Here is the whole:

Thanks to OM Mario, 9A4DE I finally got the answers I was looking for.
Visit these two sites:
1)
http://www.home.earthlink.net/~calvinf15/_technical/EH_antenna_test_repo
rt.pdf
2)
http://www.home.earthlink.net/~calvinf15/_technical/EH_antenna_test_repo
rt_2.pdf

That means:
- practically: I am not going to build the EH antenna;
- theoreticallay: The EH antenna behaves exactly according to the
classical antenna theory.
Thanks everyone for taking part in the discusson.
Bozidar, 9a2hl

# 844. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 19:43:59 UTC
From: richardharrison@webtv.net
Message-ID: <8843-41756E7F-420@storefull-3253.bay.webtv.net>
Source record: 88039

Ian, G3SEK wrote:
"Hopefully you will agree that an IDEAL INDUCTANCE does not ever have different currents at its two terminals and does not radiate either."

Sorry to disappoint you, but adequate demonstration has already shown different currents in and out of a loading coil. I won`t claim it was an ideal inductor.

The title: Re:Current in loading coil. EZNEC- helix. This is not about an ideal inductance.

An inductor, inductance, or retardation coil is used to provide inductance.

An inductor has a second definition:
"A passive fluidic element which because of fluid inertness, has a pressure drop that leads flow by essentially 90-degrees." Sounds vaguely familiar.

Inductance is defined as a "property of a circuit that tends to oppose any change because of a magnetic field associated with the current itself. Whenever an electric current changes its value, rises or falls, in a circuit, its associated magnetic field changes, and when this links with the conductor itself an emf is induced which tends to oppose the original current change."

If the purpose is to provide inductance, and the purpose of thiis inductance is to exhibit Lenz`s law, then an ideal inductor does not radiate, but I`m not convinced it does not have different currents at its two ends, as this says nothing about the coil`s quality or perfection.

After all, self inductance is the production of an oppositely directed current in reaction to an imposed current.

An ideal coil can very well be arranged not to radiate or couple to the outside world other than through its terminals. These terminals can face very different impedances depending on where each is connected in a circuit with standing waves. That is what confronts the ordinary loading coil in an antenna circuit.

Best regards, Richard Harrison, KB5WZI

# 845. Re: Is lighting nuts?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 20:15:04 UTC
From: leaf <leaf@prosensing.com>
Message-ID: <GOadnSmKI85R6OjcRVn-hQ@conversent.net>
Source record: 88040

Sorry for the spelling error crystalls should be crystals. When lightning hits the Earth, the heat it generates is enough to make glass which is an insulator. The ground rod becomes isolated from the Earth. If you spread out the contact area with the Earth as with the fence around the perimeter of the property, then the energy is not concentrated to one spot. The over all impedance is also much lower. I would install a ring grounding system around the tower. A 32ft. diameter ring would do nicely in a clay/rocky soil. Place 8ft. ground rods in the ground every 16 ft along the 32 ft. diameter circle (approx. 6 rods). Each rod is then connected to the tower base with a multistrand 00 copper wire and a ring of 00 copper to connect each rod together. The connections should be cad welded or at least treated with a deoxit coating to prevent corrosion. I have had excellent luck with this approach, no lightning hits and my tower sits up at 870ft. ASL or 650 ft. above average terrain. Note: the tower has a strike counter hooked up to it so I know no hits have happened. Go to this link to read more http://www.polyphaser.com/ppc_pen_home.asp .

Frank N1SIF

"CIL" <lorentsonci@lycos.com> wrote in message
news:5aoan0dvd1k1jv6go8phtfpbb78lg049id@4ax.com...
>
> >I would suspect a poor grounding system on the tower. If the ground is a
> rod driven into the Earth, then the impedance needs to be as low as
> possible. Once the ground system takes a surge, glass
> (( (crystalls?)))
> will formin the dirt on and around the rod. The impedance then climbs
> and the numberof strikes to the tower increase. The amount of
> impedance in your groundnetwork determines the amount of static charge
> that can build on the towerand how fast the charge can bleed.
>
> (((The tower sites are only about 100 feet apart, ground substance is
> the same, clay/rocks, 1st foot then clay.. The first tower ground, is
> a 4 ft hole, with &#65533;" rebar then driven deeper,1.5ft, w/ horz bars 1ft
> on center from bottom of hole to top, where a &#65533; steel plate was welded
> to vertical bars, and to the plate, strong hinge plate connected to 25
> rohn tower. The 'other site', is two 4" pipe, 5ft, in the ground, and
> welded to fence. Fence is 2"2/8 upset tubing that goes around
> property/everything welded. ((fence is 5 foot tall) and as stated part
> of the 'gournding system',,,? The first 'site' was not connected to
> the primenter fence,,problem???)) If you are familur with the "bird
> tilting over and drinking from the cup", you can picture in your minds
> eye, my 'tilting tower'. It is about 75ft tall, with a uhf/vhf duel
> band at top of mast, four ft. below that is a two meter horz omni

> ground plane.)))
>
> Can you describe how each tower was configured at the top and how it
> was grounded? What is important to know if the top ended up with sharp
> point (mast, VHF vertical antenna, etc.) or Yagi type antenna, like
> tribander etc. without anything pointy protruding above.
> Yuri, K3BU
>
> ((( Both towers carried almost the same 'items', vhf/uhf , and 4 ft
> below that, clover leaf horz ground plane.)))
>
>
> but their tower lighting chokes kept
> lightning off the a-c power source.
>
> ((( What do you call these chokes, I know I have read about, but at
> the moment I am blank.)))
>
>
> The broadcaster starts his lightning protection at the tower top with
> a small lightning rod extending above and beyond the beacon to take
> the hit and avoid expensive repairs at the tower top.
>
>
> ((( Is this something like the antennas I have seen that have a
> 'center core' copper rod???)))
>
> Tower guy insulators are doubled and tripled where they connect to the
> tower so that static breakdown occurs to the earth instead of at the
> tower.
>
>
> ((( Where do I 'see/read' about this??)))
>
>
> One such line was on a small single story U-Stor-It building between
> two very tall radio station towers, that was assumed to be lightning
> proof due to it's location. It was hit and hit hard when neither
> tower was hit
>
> .."How did your team "know" what was struck?
>
> """".my question was and is,,,, why?
>
>
>
>
> ((((((((((((((((((((This statement is the one that makes the
> most sense to me))))))))))))))))

>
> Lightning is Female. 20 million volts & 100 thousand Amps will do as
> it damm
> well pleases!
>
> ((((Last, but not least,,,,,,, thank you, WILL implement input,
> cl&73))))
>
>

# 846. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 20:21:55 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41757585_4@127.0.0.1>
Source record: 88043

Richard Harrison wrote:
> An ideal coil can very well be arranged not to radiate or couple to the
> outside world other than through its terminals. These terminals can face
> very different impedances depending on where each is connected in a
> circuit with standing waves. That is what confronts the ordinary loading
> coil in an antenna circuit.

Ever wonder why everyone is ignoring the 180 degree phase-reversing
coils described by Kraus in _Antennas_for_all_Applications_? Real-
world coils change the phase of the current from end to end. That
real-world phase shift is all that is required for the total current
at each end of the coil to be different when installed in a standing-wave
antenna undergoing superposition of the forward and reflected currents.

What we seem to have here is a bunch of gurus who are incapable of
admitting that they mistakenly used the lumped circuit model when
they should have used the distributed network model. It's an easy
mistake to make and a hard mistake to admit.
--
73, Cecil http://www.qsl.net/w5dxp

----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

# 847. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 20:21:57 UTC
From: Jimmie <Gfender@carolina.rr.com>
Message-ID: <FHedd.68203$ci3.4061355@twister.southeast.rr.com>
Source record: 88042

> >
> > As straight wires are usually better radiators than the same wire in
> > coils, I speculate that the current drop measured by Yuri is mostly due
> > to the high impedance (High voltage, low current) on the output of the
> > loading coil.
What, Coililng the wire has nothing to do with how well it does or does not radiate, only with how the radiation is summed into the total field. The current distribution in a loading coil should be very similar to the current distribution in the secton of antenna it is replacing.

## 848. Re: another lie

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 20:29:39 UTC
From: Chuck <wa7rai@raibeam.com>
Message-ID: <4Iedd.8195$6P5.7024@okepread02>
Source record: 88041

Richard Clark <kb7qhc@comcast.net> wrote in message
news:o4ian0htujqsq2ieoqvnleg6vveshaab56@4ax.com...
> On Tue, 19 Oct 2004 10:03:10 -0700, "Chuck" <wa7rai@raibeam.com>
> wrote:
>
> >I have for a long time, suspected there
> >was a tx line modeling problem in NEC.
> >Now, it is apparent this problem exists
> >only in your EZNEC.
> >
>
> Hi Chuck,
>
> You asked how to avoid this (if indeed it exists), and I offered a
> very simple response to which you have had no comment.

Hi Richard,

To be blunt, I didn't see any merit in your
suggestion. (1) there are no modeling
alternatives for this problem, and (2) it
failed to address the issue: Roy's apparent
omission of the thin-wire model in his EZNEC,
which he touts as a complete NEC application.

I suggest you re-read the posts if you truly
are interested, then read the NEC2d
documentation to confirm. As far as
independent empirical testing is concerned,
there is nothing new to be learned other than
revealing EZNEC's shortcomings in this
regard.

> Roy has offered a means to have a third party verify your claims,
> independent of his software such that it comes down to you are right,
> or he is right. You have not taken this offer

I accepted Roy's offer, but with conditions. So
far, he has declined to accept those conditions.

I did accept Chip's offer, though.

IRT your other oratory ramblings: Incoherent
nonsense...

73 de Chuck, WA7RAI

# 849. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 20:32:41 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41757809_4@127.0.0.1>
Source record: 88044

Jimmie wrote:
> What, Coililng the wire has nothing to do with how well it does or does not
> radiate, only with how the radiation is summed into the total field. The
> current distribution in a loading coil should be very similar to the current
> distribution in the secton of antenna it is replacing.

Actually, coiling the wire tends to reduce the far-field radiation
because much of the near-field(s) cancel each other. The currents
on each side of the coil are traveling the opposite direction in
much the same way they do in a transmission line. However, that
doesn't mean the currents at the bottom and top of the coil are
identical. The magnitude of the total current at the bottom and
top of the coil depends in large amount on the phase shift through
the coil.
--
73, Cecil http://www.qsl.net/w5dxp

----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

## 850. Re: Is lighting nuts?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 20:35:13 UTC
From: John Franklin <jpfrank@peoplepc.com>
Message-ID: <5Uedd.2864$ta5.1736@newsread3.news.atl.earthlink.net>
Source record: 88045

> The broadcaster starts his lightning protection at the tower top with a
> small lightning rod extending above and beyond the beacon to take the
> hit and avoid expensive repairs at the tower top.
>
> An air gap is installed across the base insulator to bypass a lightning
> hit to earth. Often a turn or two is made in the feed to the tower. This
> discourages lightning on the feedline and encourages breakdown of the
> gap across the insulator.

We used to call em "johnny balls" at the base of the AM towers. One station I was chief engineer of was hit constantly without any damage. NOT fun to be in the transmitter room when lightning was hitting tho! I felt like Dr. Frankenstein in my lab during the storms, when I had to go into the xmitter room.

> A static drain choke is often added if needed to provide a d-c path
> between the tower and the earth. It is used to bleed off charge which
> might build to dangerous levels.

A static drain choke is an EXCELLENT idea, I have used it on my ham antennas in the past.

73
WB7FFI

## 851. Re: Is lighting nuts?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 20:36:31 UTC
From: Jack Painter <223bthp@cox.net>
Message-ID: <kVedd.28744$_g6.1969@okepread03>
Source record: 88046

"Gary V. Deutschmann, Sr." <raiar@bbs.galilei.com.nospam> wrote

> Where lightning will hit, if it hits, can almost be calculated with a
> fair degree of accuracy.

Gary, there is no nice way to say this, but I mean no disrespect to your experience. Unfortunately, what you wrote is absolutely incorrect, and flies in the face of thousands of lightning experts all over the world, who agree only that a 300' sphere rolled over a surface will indicate (by touching) the most likely points of attachment. This means that no taller object escapes the likelihood of being a point of attachment, period. It doesn't mean anything below it is free from side attachments and flashovers. Everything else you followed with was erroneous, based on misconceptions or complete falsehoods. Places you think lightning "struck", were more likely the opposite, the point(s) where it *left* a structure.

Every once and awhile a new theory arrives claiming to predict or prevent lightning, and these have all been discredited, especially the CTS (Charge Transfer System) of lightning dissipators. There have been and there is no evidence whatsover that a point of attachment can be either predicted or prevented. This is even when the best lightning air terminal is in place at the highest point on a structure. Take your old notes and paper the bird cage, they offer only false predictions that cannot be replicated or withstand the studies that have tried this a hundred similar ways.

You have left at your disposal, the ability to make it as easy as possible for a lightning attachment or near field effect from same, to be absorbed and routed via capable grounding and surge protection systems. There is nothing else newsworthy about it.

> We did a small project in a college class and made a scale model of a
> small city. We knew from past history some of the structures that
> were hit and where. From this knowledge we made balls of certain
> sizes so they would touch if sitting on the ground the place that was
> actually hit. We ended up with only 4 such balls, each a similar size
> factor to the others.
>
> On our scale model town we outlined in red lines the most likely
> places lightning would hit if it did hit in that area.
>
> Every strike since that time, up until the project was abandoned, has
> hit somewhere on the red lines we have drawn.
> One such line was on a small single story U-Stor-It building between
> two very tall radio station towers, that was assumed to be lightning
> proof due to it's location. It was hit and hit hard when neither
> tower was hit. We also indicated that if those towers were ever hit,

> the location on those towers where the lightning would hit them.
> Neither location was near the top either. Two small strikes to one of
> the towers were both within 1 foot of where our red line was indicated
> on the scale model.
>
> We were so successful in our project we thought for sure some agency
> would pick it up and make use of it. But long after I was at school
> there, the project was abandoned with something like a record of 94%
> accuracy on pinpointing areas where lightning can hit.
>
> TTUL
> Gary
>

Jack Painter
Virginia Beach VA
http://members.cox.net/pc-usa/grounding.htm

## 852. Re: Is lighting nuts?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 20:39:05 UTC
From: John Franklin <jpfrank@peoplepc.com>
Message-ID: <JXedd.2877$ta5.1426@newsread3.news.atl.earthlink.net>
Source record: 88047

```
"CIL" <lorentsonci@lycos.com> wrote in message
news:5aoan0dvd1k1jv6go8phtfpbb78lg049id@4ax.com...
> but their tower lighting chokes kept
> lightning off the a-c power source.
>
> ((( What do you call these chokes, I know I have read about, but at
> the moment I am blank.)))
>

Perhaps you are thinking of an Austin Ring transformer to couple the
power to the beacon lights..........
```

## 853. Re: Is lighting nuts?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 20:44:27 UTC
From: richardharrison@webtv.net
Message-ID: <8843-41757CAB-447@storefull-3253.bay.webtv.net>
Source record: 88049

CIL wrote:
"What do you call these chokes?"

Tower lighting chokes. Every a-c power wire on most AM broadcast towers is fed through through a high-current r-f choke, beacon, side lights, and neutral. It avoids shorting out the tower at its base for the r-f signal.

Another device is used at some stations for the same purpose. It is called an Austin transformer and consists linked loops to transfer a-c power while providing little r-f coupling.

Tower lighting chokes must provide better performance for the price because they seem more prevalent. Tower lighting chokes may all be wraped around one form or on separate forms. They not only provide good r-f isolation, but they provide almost complete lightning isolation. They really keep lightning out of the a-c power circuits on the ground when used with appropriate bypass capacitors and arresters.

Best regards, Richard Harrison, KB5WZI

# 854. Re: EH-antenna: sensation or fraude?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 20:53:21 UTC
From: Walter Maxwell <w2du@iag.net>
Message-ID: <tivan0porvj1pfbab3k80u5eaal9ijemsv@4ax.com>
Source record: 88048

On Tue, 19 Oct 2004 21:22:02 +0200, bozidar.pasaric@ri.htnet.hr (Bozidar Pasaric) wrote:

>Richard Clark <kb7qhc@comcast.net> wrote:
>
>>
>> There is not one shred of science in any of this - except the words
>> they use to disguise the fraud.
>>
>> 73's
>> Richard Clark, KB7QHC
>
>Sorry, the previous message went out only partially. Here is the whole:
>
>Thanks to OM Mario, 9A4DE I finally got the answers I was looking for.
>Visit these two sites:
>1)
>http://www.home.earthlink.net/~calvinf15/_technical/EH_antenna_test_repo
>rt.pdf
>2)
>http://www.home.earthlink.net/~calvinf15/_technical/EH_antenna_test_repo
>rt_2.pdf
>
>That means:
>- practically: I am not going to build the EH antenna;
>- theoreticallay: The EH antenna behaves exactly according to the
>classical antenna theory.
>Thanks everyone for taking part in the discusson.
>Bozidar, 9a2hl
>
Hello, Bozidar,

There seems to be a problem with the URL you posed above. I get the error msg 'page not available'. Can you fix the URL so we can see the quote?

Walt, W2DU

## 855. Re: another lie

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 21:08:06 UTC
From: fractenna@aol.com
Message-ID: <20041019170806.21321.00001983@mb-m15.aol.com>
Source record: 88050

>I accepted Roy's offer, but with conditions. So
>far, he has declined to accept those conditions.
>
>I did accept Chip's offer, though.
>
>IRT your other oratory ramblings: Incoherent
>nonsense...
>
>73 de Chuck, WA7RAI
>

Yep:-) Sure did. I posed no conditions nor restrictions for Chuck. It's his antenna and his technology. I don't have any bias on how or why it works; I'll just measure it. Period.

I will have no problems testing it with a professional outdoor range setup.

No 's' meters here, friends.

If a third party has offered to pay for the tests if they meet Chuck's extant specs, that's fine with me. In fact, my inclination at this point is to have that third party pay up directly to Chuck. I'm happy to do this for Chuck, gratis.

Chuck can do what he wants with the data.
Always happy to help a colleague.

73,
Chip N1IR

## 856. Re: another lie

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 21:08:54 UTC
From: fractenna@aol.com
Message-ID: <20041019170854.21321.00001984@mb-m15.aol.com>
Source record: 88051

>IRT your other oratory ramblings: Incoherent
>nonsense...
>
>73 de Chuck, WA7RAI

It READS like language, but I don't know what to make of it....

73,
Chip N1IR

# 857. Re: New On-Line Hamfest

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 21:09:28 UTC
From: Chuck <wa7rai@raibeam.com>
Message-ID: <n5gdd.8201$6P5.194@okepread02>
Source record: 88060

Kb2sin <kb2sin@stny.rr.com> wrote in message
news:hIddd.311473$bp1.248566@twister.nyroc.rr.com...
>
> Check it out!!! I have set up a New Group for Amateur Radio Operators around
> the World! A Place where Amateur Radio Operators can Sell, Trade, or Give
> Away their unwanted Equipment. Here is the Url:
> http://groups.yahoo.com/group/northeast_hamfest/
>
> Join today!!!!!
> 73's de kb2sin
>
Indeed... yet another site for Yahoo
to mine info...

# 858. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 21:13:01 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <xrfdd.32538$QJ3.204@newssvr21.news.prodigy.com>
Source record: 88052

Cecil Moore wrote:
> Richard Clark wrote:
>
>> I will agree in this respect, but not all Toms are Rauchs. The term
>> "Current Drop" is abhorrent to some (a pollution of technical
>> language), an irritant to others, and inconsequential to many who
>> simply enjoy the cat fight.
>
>
> Heh, heh, so you don't believe there is a current drop between the
> current maximum point and current minimum point on a transmission
> line with reflections? Seems to me going from 2 amps at a current
> maximum to 0.1 amps at a current minimum is a measurable drop in
> total current.
>
> Would you please provide a proof that going from 2 amps to 0.1 amps
> is NOT a drop in total current?
>
> Just one more example of trying to use lumped circuit analysis methods
> on distributed network problems. Are you guys ever going to learn?
>
> Hint: With distributed networks involving an appreciable percentage of
> a wavelength, there are definitely current drops in the series loop.
> This certainly applies to 75m Bugcatcher coils used on standing-wave
> mobile antennas.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>
> ----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet
> News==----
> http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000
> Newsgroups
> ---= East/West-Coast Server Farms - Total Privacy via Encryption =---

Next, Cecil, you're going to be talking about a "current gradient"
and a "scalar current field." Here's a question for you, Cecil, and
Richard Harrison, and Yuri, too: how do you take the gradient of
the current at a point on a transmission line, and, if were possible
to do so, what is the physical significance of the result?
73,
Tom Donaly, KA6RUH

# 859. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 21:15:23 UTC
From: richardharrison@webtv.net
Message-ID: <8843-417583EB-453@storefull-3253.bay.webtv.net>
Source record: 88053

Cecil, W5DXP wrote:
"Ever wonder why everyone is ignoring the 180 degree phase reversing
coil described by Kraus in _Antennas_For_All_Applications_?"

TOUCHE`!

(They told me "touche`" was more appropriate than "there goes the SOB".)
In this thread, the foreign word is sure to offennd somebody.

The all-coil phase inverter is another reason to buy Kraus` final book.

Best regards, Richard Harrison, KB5WZI

## 860. Re: another lie

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 21:25:17 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10nb1i3c0nelv20@corp.supernews.com>
Source record: 88054

Sigh.

It's really a shame that I have to keep returning to this bashing session just to correct the false statements about EZNEC that Chuck keeps inventing. He did, at least, give the thread an honest and appropriate name. Responding only to his mistruths:

Chuck wrote:

> To be blunt, I didn't see any merit in your
> suggestion. (1) there are no modeling
> alternatives for this problem, and (2) it
> failed to address the issue: Roy's apparent
> omission of the thin-wire model in his EZNEC,

I clearly stated in an earlier posting that EZNEC implements the extended thick-wire kernel as required by the model. (The thin-wire kernel is the default.) Chuck has chosen to either disbelieve or ignore this, although I have no idea why he even cares about EZNEC's inner workings. Once again, I welcome any example of disagreement between EZNEC and NEC-2 modeling results. (Those which have been submitted in the past have nearly always been the result of the models indavertently being different, the most common error being due to the use of wire radius in NEC-2 and diameter in EZNEC.)

> which he touts as a complete NEC application.

I have never, at any time, claimed that EZNEC does or would implement all the features of NEC-2, so Chuck will never be able to support his fabrication. The lack of "patches" in EZNEC is in itself a difference that's obvious to anyone with even a superficial acquaintance with NEC-2. What I do claim is that EZNEC uses NEC-2 for the calculations it performs, and that the results one gets from EZNEC will be essentially identical to NEC-2 results.

EZNEC does have many features not present in NEC-2.

I don't know what's motivating Chuck to continue making false statements about EZNEC, but I caution readers to look at the record, archives, or other sources of information before believing what he says. You can't say you weren't warned -- just look at the thread subject.

Roy Lewallen, W7EL

## 861. Re: Gain per unit length of boom

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 21:25:32 UTC
From: "aunwin@insightbb.com"
Message-ID: <gDfdd.278515$D%.137716@attbi_s51>
Source record: 88056

"Jimmie" <Gfender@carolina.rr.com> wrote in message
news:y0ddd.68195$ci3.4056470@twister.southeast.rr.com...
> A graph from NEC data is going to be pretty much like a graph from the
ARRL
> books.

Come on Jimmy,' pretty much like' doesn't cut it on this newsgroup or in any
of the professions
The same as pretty close is not accepted when doing math at college.
The curves in the ARRL book were done on 'standard' yagis
measured in the field, at least two of the curves therefore have measuring
errors, and possibly
three of those do not match NEC formulated curves.
Since you do not want to reinvent the wheel which curve or formula do YOU
want all to
follow for short boom antennas i.e. which curve, and there are many,
represents the "wheel" .
that can be specifically used as the datum curve in response to my specific
request?

Note, a NEC produced gragh will produce a scattering of points for
different yagi's
but only ONE point for MAX GAIN PER UNIT LENGTH OF BOOM regardless of how
many elements are used which when used on short booms produce coupling
effects which
change current flow, an effect not generally seen when elements are not
critically coupled
as in the standard yagi..

Thus the reason I was specific in my request which should have
removed comments such as 'Patents" from those who seek arguments .

Art

By putting the data in a graphic form your are placing the same
> limits on the data as they had to in the ARRL books. The ARRL graphs give
> you a pretty good idea of what goes on when you change element spacing,
> number of elements and so on. What they dont do is alllow you to perform
> optimization like the NEC programs . Graphing a NEC program output would
be
> the same as going back to the time all you had was the graphs to go by
> unless you are willing to do all the calculations on your slide rule or
> calculator. What I am saying is that you already have this data. No point
in
> reinventing the wheel.Unless you think yiou can get a patent on it

Geez Jimmy you are just not reading posts of others ! If you have the
requested
data then point to a link, if I had the data already I wouldn't ask for help
seeking it,.
Art

> "aunwin@insightbb.com" <aunwin@insightbb.com@insightbb.com> wrote in
message
> news:65Zcd.150611$He1.116446@attbi_s01...
> > Jimmy,
> > I did not want to choose a curve that matches my modelling which you can
> > when presented with three different curves all of which are formulated
at
> > different
> > times by different people. I would have thought that the advent of NEC
> > would
> > render these curves redundant !
> > Art
> >
> > "Jimmie" <Gfender@carolina.rr.com> wrote in message
> > news:eMRcd.66272$ci3.3918146@twister.southeast.rr.com...
> > >
> > > "aunwin@insightbb.com" <aunwin@insightbb.com@insightbb.com> wrote in
> > message
> > > news:xOzcd.263953$D%.243703@attbi_s51...
> > > > My ARRL books go back a decade or more
> > > > and the graph showing gain per boom length
> > > > has several curves based on different measurements
> > > > e.t.c. Has a graph been made based solely on NEC
> > > > program findings over say a perfect ground and at a uniform height?
> > > > Art
> > > >
> > > >
> > > They probably have been done but there will not be much difference
> between
> > > them and the ARRL graphs. Its been long known how to calculate antenna
> > gain,
> > > computers just take the teadous labor out of it.
> > >
> > >
> > >
> > >
>
>

# 862. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 21:25:58 UTC
From: richardharrison@webtv.net
Message-ID: <8844-41758666-149@storefull-3253.bay.webtv.net>
Source record: 88057

Jimmie wrote:
"Coiling the wire has nothing to do with how it does or does not
radiate,---."

Good. Just leave your antenna rolled up.

Best regards, Richard Harrison, KB5WZI

## 863. Re: I am normally mild and polite...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 21:28:51 UTC
From: Ian Jackson <IanJacksonRemoveThisBit@g3ohx.demon.co.uk>
Message-ID: <guf7lzJTcYdBFwQ+@g3ohx.demon.co.uk>
Source record: 88055

In message <fsp6n0toehuiqbn4treau9o0l6usumulv3@4ax.com>, Roger
<Delete-Invallid.stuff.groups@tm.net> writes
>On 15 Oct 2004 22:57:29 GMT, fractenna@aol.com (Fractenna) wrote:
>
>>>BPL is simply a poor technical solution, and is an interim communications
>>>step that should be bypassed.
>>
>>Why wait? People have things to say and see right now.
>>
>>Ultimately, all telecom systems transition. BPL has the good fortune of having
>>an infrastructure and a need right now; tomorrow; and for some time to come.
>>
>>Seize the day! Solve a pressing problem. BPL looks very promising.
>
>That is not exactly what the Technology News has to say
>http://www.technewsworld.com/story/37378.html
>They basically say it doesn't look promising as a business model and
>the infrastructure isn't in place to use it yet, except for a few test
>sites. It's inefficient, expensive to install, and is least likely to
>serve the sparsely settled rural areas for which it's being touted.
>
>Roger Halstead (K8RI & ARRL life member)
>(N833R, S# CD-2 Worlds oldest Debonair)
>www.rogerhalstead.com
>>
>>73,
>>Chip N1IR
>>
>
It seems incongruous that the FCC should be supporting BPL.
They should be renamed the FLOCC (Federal LACK OF Communication
Commission).
Ian.
--

## 864. Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 21:37:27 UTC
From: thom1327@umn.edu
Message-ID: <cd752b97.0410191337.22cc3079@posting.google.com>
Source record: 88058

For a mid-UHF fractal antenna, what kind of power can be used to transmit, 100 watts, 1000 watts, 10,000 watts...?

# 865. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 21:51:10 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <plSWEVdOxYdBFAB9@ifwtech.co.uk>
Source record: 88061

Cecil Moore wrote:
>> I want you to stop and think a moment, about how an IDEAL INDUCTANCE
>>behaves in an antenna. (Sorry to shout, but every time I type "ideal
>>inductance" quietly, you seem to read something else :-)
>
>Ian, please take your own advice. It's pretty obvious that you are
>thinking about an IDEAL INDUCTANCE in terms of a lumped circuit
>analysis
>which is invalid when analyzing a STANDING-WAVE ANTENNA.

It makes life easier to compartmentalize your scientific world-view in that way.... but it is deeply, fundamentally wrong.

In reality, all true scientific knowledge joins up seamlessly - that's how we *know* it's true! If we can't see how it joins up, that means we still have work to do. Dividing it into compartments that don't join up is lazy and will always lead you false.

A fundamental physical property like inductance doesn't change its behaviour depending on the situation it finds itself in. If you cut the antenna wire and insert an ideal, lumped inductance, that inductance will behave in exactly the same way as it does in any other circuit.

If you really looked hard at the math of antennas considered as transmission lines, you would find there is no problem whatever about inserting an ideal inductance, with no difference in current between its two terminals.

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

# 866. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 21:51:48 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <gFMUsyd0xYdBFAC7@ifwtech.co.uk>
Source record: 88062

Richard Harrison wrote:
>Ian, G3SEK wrote:
>"Hopefully you will agree that an IDEAL INDUCTANCE does not ever have
>different currents at its two terminals and does not radiate either."
>
>Sorry to disappoint you, but adequate demonstration has already shown
>different currents in and out of a loading coil. I won`t claim it was
>an ideal inductor.

In that case you have nothing to discuss with me.

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

# 867. Re: Gain per unit length of boom

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 21:56:40 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <SFnYckeY2YdBFAlq@ifwtech.co.uk>
Source record: 88063

Jimmie wrote:
>> > The plot of many individual yagis does confirm the general idea of gain
>> > being roughly proportional to boom length, and that is a very important
>> > thing to understand.
>> clip
>>
>>
>There is no direct connection between boom length and gain. This is
>because lengthing the boom also implies one has added elements and
>possibly made adjustments to element spacing.

Sorry, I should have said that boom length is roughly proportional to
the *available* gain, if the whole length of the boom is populated with
elements in such a manner as to optimize the gain. That requirement is
usually taken as understood.

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

# 868. Re: Gain per unit length of boom

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 22:05:27 UTC
From: Chuck <wa7rai@raibeam.com>
Message-ID: <n5gdd.8202$6P5.3752@okepread02>
Source record: 88059

aunwin@insightbb.com <aunwin@insightbb.com@insightbb.com> wrote in message news:x_Ycd.281755$3l3.162866@attbi_s03...
> What brought this to my attention was Moxon who advocated 2 element beams
> (lightnes translates to greater heights) so I modeled a 20 meter beam on a 7
> foot
> boom and obtained 12dbi max for the band (ala< 2:1)

Hi Art,

Can we assume this gain was calculated
at a particular height over ground?
Personally, I prefer FS results, in order to
eliminate any ambiguity.

> but one can get 13dbi
> if you drop the impedance from 50 to 12 ohms.
> This then raised the question would a transformer cancel the increased
> gain.

Optimizing an antenna for a specific Z
is not a good idea in my opinion, as
the amplitude of an element's current is
proportional to the amplitude of its
radiation. Ohms law tells us that at a
consistant power level, the lower the R
(Z), the greater will be the current.

A zero loss transformer would not
reduce the element's current, as the
energy being introduced to the element
would remain unchanged.

73 de Chuck, WA7RAI

## 869. Re: another lie

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 22:10:01 UTC
From: Bob MacBeth <BobbyMacBeth_NotReally_@HotMail.com>
Message-ID: <Yggdd.2561$9u7.16964633@news.sisna.com>
Source record: 88064

Someone going by 'Bob':
>> Someone has to produce an example.

"Richard Clark"
> ...I've done that here through modeling
> too using exactly your point. The results
> were trivial, but for some, extremely
> hard to swallow. [**] ;-)

Can you clarify your findings (please and thank you)? Were you able to find an antenna system (pair) that displayed direction-dependant pathloss? Since you can't prove a negative and I know that you know it, I assume that you did. If so, perhaps you could post the example on your website.

**joke**:

Monica Lewinsky is voting Republican this year; the Democrats have left a bad taste in her mouth.

# 870. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 22:13:47 UTC
From: richardharrison@webtv.net
Message-ID: <13717-4175919B-62@storefull-3251.bay.webtv.net>
Source record: 87983

Tom Donaly, KA6RUH wrote:
": how do you take the gradient of the current at a point on a
transmission line?"

Not sure I understand the question. Gradient is the rate of change and
that`s the derivative of the current at a given point. Over a certain
path it is the difference between the path ends and can be averaged for
the path.

For convenience, Kraus has collected transmission line formulas. I`m not
a typist so I`ll just say they are near the end of the new edition, page
890. In the 1950 edition they can be fornd on pages 506 and 507, also
near the end of the book.

Work out your own example.

Best regards, Richard Harrison, KB5WZI

# 871. Re: another lie

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 22:16:12 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <d14bn0hanl8f741242g45b6t3qdro89uak@4ax.com>
Source record: 88065

On Tue, 19 Oct 2004 13:29:39 -0700, "Chuck" <wa7rai@raibeam.com>
wrote:
>To be blunt, I didn't see any merit in your
>suggestion. (1) there are no modeling
>alternatives for this problem,
Can't construct a coaxial line from wire elements? Tedious perhaps
but not impossible as you would suggest.
>and (2) it
>failed to address the issue
Then perhaps this is a moving target.

Hi Chuck,

Well, now that is quite odd in that when I posed this solution earlier
you agreed is was in fact achievable. Now that you deny it as a
solution I can only interpret that you do not see it concludes your
speculation to your advantage.

>IRT your other oratory ramblings: Incoherent
>nonsense...

You mean you couldn't understand my anticipation of your proceeding to
no particular resolution and the continuation of repetition and
denial? :-)

Difficult concepts, but obviously demonstrated.

73's
Richard Clark, KB7QHC

## 872. Re: Why?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 22:19:29 UTC
From: Ian Jackson <IanJacksonRemoveThisBit@g3ohx.demon.co.uk>
Message-ID: <ROH3tpPxLZdBFwkz@g3ohx.demon.co.uk>
Source record: 88067

In message <2ti2duF1vu2hhU1@uni-berlin.de>, Ken Bessler
<kg0wx@NOSPAMyahoo.com> writes
>Can anyone tell me why I get a worse SWR at
>100w than at 5w? I know the reflected power
>goes up but I'm using a cross needle meter here
>so I'm referring to the actual ratio.
>
>Which SWR should I trust?
>
>Ken
>
>
>
It's all to do with the knee of the diodes. The rectification efficiency
of diodes drops off rapidly when the level of the applied RF signal is
low.

Assuming that the SWR is fairly good, but not 1:1, with 100W the reverse
detector will get a reasonable level of RF, and will be reasonably
efficient. The forward detector will, of course, get lots of RF, and
will be very efficient. The result of this is that you get a pretty
accurate (if slightly optimistic) indication of the SWR.

At 5W, the reverse detector will get less than a quarter of the voltage
than at 100W, and this will make it fairly inefficient - so inefficient
that the diode hardly works at all. However, even though the forward
detector will also get less than a quarter of the 100W voltage, this
will still be sufficient for it to be reasonably efficient. As a result,
you still get a good reading for the forward power, but essentially
nothing for the reverse. As you are not really seeing the reflected
power, the SWR looks decidedly optimistic.

Ian.
--

## 873. Re: EH-antenna: sensation or fraude?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 22:19:58 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <rh4bn0p3flqmffoko25nst36b8mm9903e2@4ax.com>
Source record: 88070

On Tue, 19 Oct 2004 21:22:02 +0200, bozidar.pasaric@ri.htnet.hr
(Bozidar Pasaric) wrote:

>Thanks everyone for taking part in the discusson.

Hi Bozidar,

So by your two additions and to the neglect of my offer of their own
contradicting evidence, you have no interest in their report?

73's
Richard Clark, KB7QHC

# 874. Re: Printing wire list from EZNEC?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 22:22:11 UTC
From: Wes Stewart <n7ws_@_yahoo.com>
Message-ID: <j23bn0pst9satl80qs38t5e7vljsk2jdrn@4ax.com>
Source record: 88068

On Mon, 11 Oct 2004 17:01:12 -0700, "Chuck" <wa7rai@raibeam.com>
wrote:

[snip]
|
|Regarding my claims; you cannot provide
|one substantiated instance where my
|antennas did not perform as stated. Where
|are the complaints? Where are the
|dissatisfied users. One would think after TEN
|years there would have been some indication
|of a fraud if one did exist.
|
|Or perhaps you simply imagine that all those
|good folks who find my antenna design a
|superior one, are merely deluded idiots, as
|Brian Beasley once accused...

One only look at the deluded victims and followers of the likes of
Jerry Falwell, Jim Bakker, Jim Jones, the Nigerian finance minister,
etc. to realize that hucksters never find a shortage of true
believers.

Let me show you how this works.

I _personally_ guarantee you that my design for a 3-element 20-meter
Yagi will out perform any Raibeam of the same boomlength and at the
same height above ground. (I'll leave out the "electrical
boomlength", whatever that means)

Now it is up to *you* to prove this claim false.

And like any good huckster, as "proof" of the superiority of my
design, I offer these testimonials:

With the antenna at a modest height of 50' above ground and fed with
250' of coax, in the recent ARRL Field Day contest Single-op N7WS was
able to hold a frequency while running < 100 W (SSB) on emergency
power. In only 17 hours of operation 1357 20-meter Q's were logged.
All states and all ARRL sections were contacted.

During the recent YV0D expedition, N7WS worked them not once, but
twice on SSB (this pissed them off, but I'm tired of not being in the
log when I know that I worked them), on the first call, and also
worked them with ease on CW.

http://dx.qsl.net/cgi-bin/logsearch.cgi?L=yv0d&C=n7ws

Etc., etc....

## 875. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 22:25:23 UTC
From: fractenna@aol.com
Message-ID: <20041019182523.29586.00002370@mb-m02.aol.com>
Source record: 88066

>For a mid-UHF fractal antenna, what kind of power can be used to
>transmit, 100 watts, 1000 watts, 10,000 watts...?
>

I've had such antennas at very high QRO, but not for ham use.

Some designs, as with antennas in general, will arc at very high voltages.
Others will not.

It takes experience to pick the design that deals with the specs, including a
HV spec.

That's a commercial issue and beyond the scope of this NG.

73,
Chip N1IR

# 876. Re: Gain per unit length of boom

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 22:25:47 UTC
From: Wes Stewart <n7ws_@_yahoo.com>
Message-ID: <sk0bn09cpopr72rla00a2bvsbh3v41p5lm@4ax.com>
Source record: 88069

On Tue, 19 Oct 2004 14:02:18 -0400, "G&R" <spam@limbo.hell> wrote:

|Hi Wes,
|
|Yes I am aware of the difference between the advertising on the site and the
|range results.

So are you going to fix it or not?
|
|As you are aware antennas do not have even gain across the entire band. We
|have designed the antenna to cover the entire 2m band and as a result do see
|a variation in the perfromance across the band, hence max gain.

Huh? So are you saying that you have nearly 3 dB gain variation in 2
MHz.?

|
|And before you cut down my comments, the precision on the results are from
|the softare and we are in the process of redesigning the format to more
|accurately reflect our actual results both modelled and actual.
|Unfortunately our business is antennas and web design.

In a paper I wrote for the ARRL Antenna Compendium, I said,
"Simplified 'antenna analyzers', especially those with digital
readouts can lull the user into unjustified confidence in the accuracy
of his measurements."

Change the words "antenna analyzers" to "computer software" and it
describes this situation to a T.

|
|The results posted on the CSVHF society are valid as the antenna was tested
|with a gain of 11.2dBd at 144.18MHz Horiz Polarization. Design Freq is
|146.0MHz.
|
|We are in the business of designing and selling antennas not developing
|antennas and giving them away for free. However, if your serious about the
|data for the antenna contact me directly so that we can discuss the details
|(email listed below).

My slightly distorted email is above. If you choose to send me your
parameters, I promise to keep it in confidence. I don't not design,
or manufacture antennas (or anything else) for a living.
|
|As to the DATAQ, well I have no answer for that one, as we don't build it or
|sell it. Our software is designed to with run it. Strange though, my
|Toshiba does and so does my SONY through a USB to SERIAL converter.

I know you don't build or sell it, I'm just offering a caution to
those who might be tempted to buy one. It works on my desktop but not
my laptop, which is a pity because I had a portable use in mind.

|
|One final point, the purpose of the posting was that identify that an
|antenna does not always need boom length and elements for gain and that
|there are other ways to achieve this.

Absolutely. One driven element at the focus of a 40' parabola is a
decent antenna at 2-meters.

Regards,

Wes N7WS

# 877. Re: WI FI VS BPL

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 22:33:50 UTC
From: Bob MacBeth <BobbyMacBeth_NotReally_@HotMail.com>
Message-ID: <gDgdd.2562$r6.17809472@news.sisna.com>
Source record: 87972

"Fractenna" conjectured:
> [Wi-Max] will replace Wi-Fi...

Wi-Max range is slated to be MUCH greater than the normally ultra-short range of Wi-Fi. Wi-Max is to be a 'metropolitan' network with normal ranges in the double-digit miles. That is a critical and extremely 'enabling' difference.

Once established, Wi-Max will enable Internet Radio in cars and Walkmans (etc). Wi-max automobile-PCs in cars (yes, they're coming soon) is a combination that will ~bury~ the old AM/FM broadcast industry. (Imagine what wireless-enabled automobile-PCs will do for drive-by music sharing...)

Also, Wi-Max plus VoIP will shake up the 'smell phone' industry too. Why pay $30 per month to the cell phone bandits when you can have similar capabilities on your bundled Wi-Max account (replacing DSL, landline, cell phone and more) ?

Obviously, in the long run, they'll have to 'cell' the Wi-Max zones into smaller areas for frequency reuse. But to start, the key is the proposed incredible range.

Wi-Max is going to be ~huge~. Much more than the boring old laptops in coffee shops and parks (::yawn::).

Buy your stocks now.

## 878. Re: Why?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 22:34:04 UTC
From: "NN7Kex<NOSPAM>k7zfg" <"NN7Kex<NOSPAM>k7zfg"@sbcglobal.net>
Message-ID: <wDgdd.7907$6q2.599@newssvr14.news.prodigy.com>
Source record: 87971

Ian Jackson wrote:
> In message <2ti2duF1vu2hhU1@uni-berlin.de>, Ken Bessler
> <kg0wx@NOSPAMyahoo.com> writes
>
>> Can anyone tell me why I get a worse SWR at
>> 100w than at 5w? I know the reflected power
>> goes up but I'm using a cross needle meter here
>> so I'm referring to the actual ratio.
>>
>> Which SWR should I trust?
>>
>> Ken
>>
>>
>>
> It's all to do with the knee of the diodes. The rectification efficiency
> of diodes drops off rapidly when the level of the applied RF signal is low.
>
> Assuming that the SWR is fairly good, but not 1:1, with 100W the reverse
> detector will get a reasonable level of RF, and will be reasonably
> efficient. The forward detector will, of course, get lots of RF, and
> will be very efficient. The result of this is that you get a pretty
> accurate (if slightly optimistic) indication of the SWR.
>
> At 5W, the reverse detector will get less than a quarter of the voltage
> than at 100W, and this will make it fairly inefficient - so inefficient
> that the diode hardly works at all. However, even though the forward
> detector will also get less than a quarter of the 100W voltage, this
> will still be sufficient for it to be reasonably efficient. As a result,
> you still get a good reading for the forward power, but essentially
> nothing for the reverse. As you are not really seeing the reflected
> power, the SWR looks decidedly optimistic.
>
> Ian.
One other possibility, could be mismatched diodes simple test is to reverse
your swr meter (The Antenna to the Transmit connector, the Transmiter to
the Antenna connector, and see if you get the same results. this should at
least test the knee of the "square law response" of low level voltage from
the diodes . for a dual , crossed meter, this jist is to make sure that
the pointers (opposite) are at the same relative positions as measured
in the correct direction, as obviously, the swr curve on the meter will
not be valid-- Do this on both low power, and high power. Tests not
only the diodes, but the coupling links in your swr bridge. Jim NN7K

--
To reply, remove the <NOSPAM>

## 879. Re: EH-antenna: sensation or fraude?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 22:39:19 UTC
From: Bob MacBeth <BobbyMacBeth_NotReally_@HotMail.com>
Message-ID: <qlgdd.2563$je.18265137@news.sisna.com>
Source record: 87973

"Walter Maxwell"
> There seems to be a problem with the
> [BROKEN] URLs you posed above.

www.home.earthlink.net/~calvinf15/_technical/EH_antenna_test_report.pdf
OR
http://tinyurl.com/4tkl8

www.home.earthlink.net/~calvinf15/_technical/EH_antenna_test_report_2.pdf
OR
http://tinyurl.com/6x38y

Merry Xmas ;-)

# 880. Re: Fractenna lashes out at hams using BPL

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 23:33:42 UTC
From: Mike Coslo <mcoslo@adelphia.net>
Message-ID: <2pKdnaR4aavLOejcRVn-3Q@adelphia.com>
Source record: 87974

Mark wrote:

> Oh dear, my generalisations have yet again confused those of electronics
> academia and has caused interpretation problems with a gargantuan
> proportion.
>
> Maybe my sentence " You know what the trouble is with us amateurs is? "
> should
> be changed to " You know what the trouble is with all those on this list is:
> " ( followed by a list of every amateur in the world , but filtering out
> those who don't reply to an extensive survey to find out if they would like
> to be included in the generalisation "we". )
>
> He casts... he waits... ( not long ) , and he reels them in...

What digital rig do you use, Mark?

- Mike KB3EIA -

## 881. Re: another lie

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 23:34:48 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <uu6bn0toi5cgkplm22i0m75hcs0g5p0u4b@4ax.com>
Source record: 87975

On Tue, 19 Oct 2004 19:10:01 -0300, "Bob MacBeth"
<BobbyMacBeth_NotReally_@HotMail.com> wrote:

>Someone going by 'Bob':
>>> Someone has to produce an example.
>
>"Richard Clark"
>> ...I've done that here through modeling
>> too using exactly your point. The results
>> were trivial, but for some, extremely
>> hard to swallow. [**] ;-)
>
>Can you clarify your findings (please and thank you)? Were you able to find
>an antenna system (pair) that displayed direction-dependant pathloss?

I've use EZNEC to demonstrate any number of "impossibilities" all
without violating or compromising the modeler's constraints. The
effects were trivial to say the least, but demonstrated that Axioms of
antenna theory had limitations that were unexpressed (until you got to
the graduate level of the same sophomore course work).

>Since
>you can't prove a negative and I know that you know it, I assume that you
>did. If so, perhaps you could post the example on your website.

Well, it has been a great while in this particular instance of path
reciprocity. I did use the scale of range you suggested (and perhaps
further). It was not so much about loss however, but the failure of
reciprocity (a common topic in photography - which, here, is an
aside).

I frequently use two or three antennas in one model, with the
second/third being receive models with termination resistors. They
would be called sniffers in field work or bench work. This work that
I engaged in had no particular demonstration of your curved field
issue (which, through simple abstraction suggests any differences you
would observe would be out several decimal places and beyond the
ability of any instrumentation to resolve with accuracy). Then again,
maybe it did (it may have involved an inclined sniffer which
demonstrated the curvature in one direction, with a corresponding
difference in the other). I would suggest you simply follow this last
speculation and see where it takes you.

I suppose you could search the archives for my name and the key words
of "reciprocity failure" and confine the search to the mid to late
90s.

73's
Richard Clark, KB7QHC

## 882. Re: another lie

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-19 23:48:25 UTC
From: Bob MacBeth <BobbyMacBeth_NotReally_@HotMail.com>
Message-ID: <fJhdd.2583$%t1.19702874@news.sisna.com>
Source record: 87976

"Richard Clark"
> I've use EZNEC to demonstrate any number
> of "impossibilities" all without violating or
> compromising the modeler's constraints. ...

Merci.

# 883. Re: BPL NOT AOK!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-20 00:04:32 UTC
From: Dan/W4NTI <w4nti@get>
Message-ID: <kYhdd.3057$ta5.2728@newsread3.news.atl.earthlink.net>
Source record: 87978

"Mark Keith" <nm5k@wt.net> wrote in message
news:25eb70d7.0410161931.6f03825e@posting.google.com...
> sideband <AINO8SPAMW@cac.net> wrote in message
> > I'll be the first to admit I have things to learn, and I'm no expert
> > in any one area. I do know what I've experienced with BPL, and it's
> > not been pleasant. Just ask the folks around the Orlando, Florida
> > area... Their BPL tests can be heard all the way across the state in
> > Titusville, and so greatly that it interferes with communications.
> >
>
> Money talks, and common sense and real world reports take a walk. In
> most cases anyway. Some companies have already tried and discarded
> BPL. Problems o-plenty. Maybe others will see the light. The dark side
> has won a major battle, and Darth Chipster gloateth o-plenty, but the
> day is not lost yet. My R2 unit, "henry 2k console model", is jumping
> around beeping and squeaking just itching to join the battle. If they
> attack locally, I will give them sporadic shots of my BPL death beam
> via my various elevated radiating devices. I'll have them locking up
> like a J38 model speedsters hitting a canyon wall. The F.C.C brass
> should be flogged with leather whips for the obvious disregard of the
> currents users of the HF spectrum. It's all about money...Nothing
> else. All the reports of problems with the systems were ignored.
> "Except by some owners, who dropped out of the BPL testing"
> Also, many claims are pretty hokey...IE: they claim that they can null
> out problem frequencies, IE:, aircraft, etc, etc. But I hear of
> problems doing this. I hear it's not really that feasable if they want
> to maintain proper operation, and I also hear it doesn't really cure
> the problem, as the "nulling device" is not far from the user.
> Take just aircraft alone...We are talking nulling say 2-3 mhz, 6 mhz,
> 8 mhz, 10 mhz, 11 mhz, 13 mhz, 17 mhz, 21 mhz, 27 mhz, just for a
> few...I may have missed some military bands, etc...
> I have heard of no notching plans for amateur bands, so I guess we
> have to go to rf noise hell...:(
> I bet the system will work great with all those notched
> holes...Not....
>
> They still will be radiating those freq's on the main lines I would
> think. It's the biggest money grubbing farce I've ever heard of. Heck,
> with my radios and antennas, they could probably be blocks or even
> miles away, and I could still hear it. The Florida experience backs me
> up on this. I'm not just barking at the moon. Bye bye weak DX....Bye
> bye weak aircraft signals. Bye bye any rf weaklings...QRp will be
> extra fun being half the country will probably soon have their ears
> plugged with digital spew.

> But, I bet they will hear me too, if the leakage is that bad...:) It
> will be a bad day for the empire if my R2 unit joins the fray. I'll
> keep those BPL techs a hopping all over the neighborhood. Remember,
> most of the speculation is about damage to the hams, etc... But don't
> ignore the damage all the 1000's of hams and other rf emitting device
> owners will likely cause them. CB's will have to deal with them also,
> and you know how nasty signaled some cb'ers can get. I hear some 4-5
> mhz wide as it is... I don't think they have really fully taken this
> into account yet. MK

I WISH I had a CBer that narrow. My 'good buddy' puts out a S9 plus from
14 to 50 MHz.

Dan/W4NTI

# 884. Re: BPL NOT AOK!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-20 00:09:29 UTC
From: Dan/W4NTI <w4nti@get>
Message-ID: <Z0idd.3064$ta5.1499@newsread3.news.atl.earthlink.net>
Source record: 87979

"Wes Stewart" <n7ws_@_yahoo.com> wrote in message
news:0o35n0hmuhukab7rrs9pblboj6v7big7t1@4ax.com...
> On 16 Oct 2004 20:31:55 -0700, nm5k@wt.net (Mark Keith) wrote:
>
> |sideband <AINO8SPAMW@cac.net> wrote in message
> |> I'll be the first to admit I have things to learn, and I'm no expert
> |> in any one area. I do know what I've experienced with BPL, and it's
> |> not been pleasant. Just ask the folks around the Orlando, Florida
> |> area... Their BPL tests can be heard all the way across the state in
> |> Titusville, and so greatly that it interferes with communications.
> |>
> |
> |Money talks, and common sense and real world reports take a walk. In
> |most cases anyway. Some companies have already tried and discarded
> |BPL. Problems o-plenty. Maybe others will see the light. The dark side
> |has won a major battle, and Darth Chipster gloateth o-plenty, but the
> |day is not lost yet. My R2 unit, "henry 2k console model", is jumping
> |around beeping and squeaking just itching to join the battle. If they
> |attack locally, I will give them sporadic shots of my BPL death beam
> |via my various elevated radiating devices. I'll have them locking up
> |like a J38 model speedsters hitting a canyon wall. The F.C.C brass
> |should be flogged with leather whips for the obvious disregard of the
> |currents users of the HF spectrum. It's all about money...Nothing
> |else. All the reports of problems with the systems were ignored.
> |"Except by some owners, who dropped out of the BPL testing"
> |Also, many claims are pretty hokey...IE: they claim that they can null
> |out problem frequencies, IE:, aircraft, etc, etc. But I hear of
> |problems doing this. I hear it's not really that feasable if they want
> |to maintain proper operation, and I also hear it doesn't really cure
> |the problem, as the "nulling device" is not far from the user.
> |Take just aircraft alone...We are talking nulling say 2-3 mhz, 6 mhz,
> |8 mhz, 10 mhz, 11 mhz, 13 mhz, 17 mhz, 21 mhz, 27 mhz, just for a
> |few...I may have missed some military bands, etc...
> |I have heard of no notching plans for amateur bands, so I guess we
> |have to go to rf noise hell...:(
> |I bet the system will work great with all those notched
> |holes...Not....
> |
> |They still will be radiating those freq's on the main lines I would
> |think. It's the biggest money grubbing farce I've ever heard of. Heck,
> |with my radios and antennas, they could probably be blocks or even
> |miles away, and I could still hear it. The Florida experience backs me
> |up on this. I'm not just barking at the moon. Bye bye weak DX....Bye
> |bye weak aircraft signals. Bye bye any rf weaklings...QRp will be

> |extra fun being half the country will probably soon have their ears
> |plugged with digital spew.
> |But, I bet they will hear me too, if the leakage is that bad...:) It
> |will be a bad day for the empire if my R2 unit joins the fray. I'll
> |keep those BPL techs a hopping all over the neighborhood. Remember,
> |most of the speculation is about damage to the hams, etc... But don't
> |ignore the damage all the 1000's of hams and other rf emitting device
> |owners will likely cause them. CB's will have to deal with them also,
> |and you know how nasty signaled some cb'ers can get. I hear some 4-5
> |mhz wide as it is... I don't think they have really fully taken this
> |into account yet. MK
>
> Exactly.
>
> I'm pretty sure that I've mentioned much of the following before but
> just in case...
>
> My power company is a rural cooperative. It serves 29,000 customers
> spread over three counties. (one of these counties is larger than a
> few states.) It has 2900 miles of line (and I don't think that covers
> the 600' of underground feeder from the pole to my house). They serve
> from the river bottom land near Tucson to the top of a 9800' mountain
> and a community on the Mexican border. The company is also my ISP.
>
> A few years ago I was fighting powerline noise and not getting a lot
> of help from the company. It wasn't for lack of interest on their
> part, they just didn't have the resources or trained personnel to
> isolate the problem(s). I basically wound up instructing their
> linemen about what to try.
>
> During this time I wound up in contact with the company VP in charge
> of new technology. We had an interesting one-engineer-to-another
> conversation wherein he told me that they had experimented with a
> system to read customers' meters remotely using "common-carrier"
> signals on the lines. Sending guys around the service area in pickup
> trucks once a month to read meters was a big expense so they had a
> compelling motive to pull this off. They failed.
>
> Even with very narrow-band, low-speed signaling, they couldn't even
> read a meter once a month. They finally went to meters with
> transmitters in them that can be read without the guy having to get
> out of his truck and walk around with the rattlesnakes.
>
> And they're going to supply me with high speed Internet over the same
> wires?

And don't forget the power line noise will tear this digital trash a new one. Here in Alabama it will be a toss up of which is worse. The BPL or the PL Noise. I bet on the PL noise winning. If not then perhaps my KW beacon on all bands will.

Dan/W4NTI

## 885. Re: another lie

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-20 00:15:07 UTC
From: Chuck <wa7rai@raibeam.com>
Message-ID: <9%hdd.8204$6P5.3807@okepread02>
Source record: 87977

Roy Lewallen <w7el@eznec.com> wrote in message
news:10nb1i3c0nelv20@corp.supernews.com...
[... ]
>
> I clearly stated in an earlier posting that EZNEC implements the
> extended thick-wire kernel as required by the model. (The thin-wire
> kernel is the default.)

Hi Roy,

For clarity, let it be established that the
term "wire kernel" and "wire model" (the
term used in the NEC2d documentation) will
be considered as one and the same in this
discussion.

That said, I find it extremely hard to believe
that the wire model used for interconnecting tx
lines, which normally would be implemented
only in the special case of unbalanced
terminations, and one that uses the most
resources, would be designated as the
default wire model. It defies all logic.

When asked what criteria your program uses
to determine which wire model to implement,
and why it is not a choice the user can make
- as it should be - you responded with a rather
paranoid and pejorative diatribe attacking my
character... what am I supposed to assume
from that?

In any event, these were honest questions
which you chose to evade, and continue to do
so. All things considered, it is easy to make
the assumption that the thin-wire model is not
implemented in EZNEC, and you're simply
trying to spin your way out of a hole.

Shame on you!

73 de Chuck, WA7RAI

# 886. Re: WI FI VS BPL

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-20 00:21:09 UTC
From: Dan/W4NTI <w4nti@get>
Message-ID: <Vbidd.3087$ta5.1699@newsread3.news.atl.earthlink.net>
Source record: 87980

"Fractenna" <fractenna@aol.com> wrote in message
news:20041019090029.29586.00002320@mb-m02.aol.com...
> >Can't wait for Wi-MAX. It'll bury whatever bits and pieces of BPL are
> >still on the air 2-3 years out.
> >
> >Viva Wi-MAX! Bring it on!
> >
> >w3rv
>
> WiMax is a great thing, Brian. The main problem is actually one of
antennas.
>
> I think Wimax has a bright future, but I don't share your opinion that it
will
> bury BPL. It seems more likely that it will replace Wi-Fi in extant
deployments
> at some point. My opinion, anyway.
>
> 73,
> Chip N1IR

BPL is never getting off the ground to start with. People dont want to be tied to a power line any longer. Look at the dramatic increase of cell phone and lap top computers in so called hot spots.

BPL is dead before it gets going.

Dan/W4NTI

## 887. Re: Gain per unit length of boom

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-20 00:21:10 UTC
From: "aunwin@insightbb.com"
Message-ID: <Wbidd.156718$He1.38391@attbi_s01>
Source record: 87981

"Chuck" <wa7rai@raibeam.com> wrote in message
news:n5gdd.8202$6P5.3752@okepread02...
>
> aunwin@insightbb.com <aunwin@insightbb.com@insightbb.com> wrote in message
> news:x_Ycd.281755$3l3.162866@attbi_s03...
> > What brought this to my attention was Moxon who advocated 2 element
beams
> > (lightnes translates to greater heights) so I modeled a 20 meter beam on
a 7
> > foot
> > boom and obtained 12dbi max for the band (ala< 2:1)
>
> Hi Art,
>
> Can we assume this gain was calculated
> at a particular height over ground?
But ofcourse a perfect ground and a standard wavelength height

> Personally, I prefer FS results, in order to
> eliminate any ambiguity.
Field strength (F.S.) introduces ambiguity does it not?

>
> > but one can get 13dbi
> > if you drop the impedance from 50 to 12 ohms.

This paraphrases the spesific example that I gave

the question would a transformer cancel the increased
> > gain.
Again you paraphased the spoecific sample that I gave
which raised the same question I gave regarding transformer losses
>
> Optimizing an antenna for a specific Z
> is not a good idea in my opinion, as
> the amplitude of an element's current is
> proportional to the amplitude of its
> radiation. Ohms law tells us that at a
> consistant power level, the lower the R
> (Z), the greater will be the current.

Yes there are many laws to remember and I
look at critical coupling as something to remember.

>
> A zero loss transformer would not

> reduce the element's current, as the
> energy being introduced to the element
> would remain unchanged.

Very true but what element would this max energy be applied to?
Via critical coupling the driven element may not be the one carrying
the maximum current and thus screws up conventional thinking.
Energy is one thing but it is current that controls radiation is it not ?.
The particular model I was working on used 50 segments per wavelength
and used element length and diameters determined by my program input .
Thus coupling gains are attained but where it sometimes determined a
element diameter
is so thin it is incapable of carrying the required current.
If I saw a vendor advertise an antenna at 13dbi I would be very suspicious
as it not the norm,
yet very realiseable when using NEC without being tied down to existing
doctrines.
Soooooo ..... I was looking for a datum curve generated by experts from
an all encompasing
NEC program where the final design reflected the real world design without
ambiguities
regarding coupling to coils, elements e.t.c. where lumped loads do not
reflect the real
world appearance.
There have been many responses including one suggestion that a suitable
datum curve could
be formulated from customer claims no less but NONE that responds to my
specific request .
Thus a conundrum still exists regarding programs based on scientific
knoweledge that are held in question
as they do not match real world measurements that spawn most of the
villifying in this group.
Seems like a datum curve could be used as a basis for many discusions where
differences do occur
instead of just arguing for eight years or more and not resolving the
accuracy concerns
Seems like I have come full circle and describing the Presidential debates !
Art
>
> 73 de Chuck, WA7RAI
>
>
>

## 888. Re: another lie

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-20 01:09:32 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10nbemj2pp2ek1c@corp.supernews.com>
Source record: 87982

Things are looking up. Instead of patently false statements, you've advanced to musings that simply make no sense. Since most readers will hopefully recognize them for what they are, no response is necessary. Actually, no rational response is even possible.

Roy Lewallen, W7EL

Chuck wrote:
> Roy Lewallen <w7el@eznec.com> wrote in message
> news:10nb1i3c0nelv20@corp.supernews.com...
> [... ]
>
>>I clearly stated in an earlier posting that EZNEC implements the
>>extended thick-wire kernel as required by the model. (The thin-wire
>>kernel is the default.)
>
>
> Hi Roy,
>
> For clarity, let it be established that the
> term "wire kernel" and "wire model" (the
> term used in the NEC2d documentation) will
> be considered as one and the same in this
> discussion.
>
> That said, I find it extremely hard to believe
> that the wire model used for interconnecting tx
> lines, which normally would be implemented
> only in the special case of unbalanced
> terminations, and one that uses the most
> resources, would be designated as the
> default wire model. It defies all logic.
>
> When asked what criteria your program uses
> to determine which wire model to implement,
> and why it is not a choice the user can make
> - as it should be - you responded with a rather
> paranoid and pejorative diatribe attacking my
> character... what am I supposed to assume
> from that?
>
> In any event, these were honest questions
> which you chose to evade, and continue to do
> so. All things considered, it is easy to make
> the assumption that the thin-wire model is not

> implemented in EZNEC, and you're simply
> trying to spin your way out of a hole.
>
> Shame on you!
>
> 73 de Chuck, WA7RAI
>
>
>
>

# 889. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-20 01:10:48 UTC
From: "aunwin@insightbb.com"
Message-ID: <sWidd.499690$8_6.435816@attbi_s04>
Source record: 87986

Ian
Would you please describe for me the physical arrangement of an IDEAL
inductance.
I cannot visulise such a thing as I only have seen 'coiled ' inductors
,where each coil has
a scientific and analytical relationship to its adjacent coils which thus
CREATE an
inductance and without which an 'inductance' cannot occur.
I don't want to enter the augument that is ensuing on this thread but just
want to be sure that
there is not an inductance available that is not generated by proximity to
other items including
its own content (wire length)
Using chemical terms, is it an element or a compound if you get my drift ,
since you later
mention that 'inductance.' has a "fundamental physical
property................." that does not change
regardles of a proximity situation.
i.e. Self sufficient.?
TIA
Art

"Ian White, G3SEK" <G3SEK@ifwtech.co.uk> wrote in message
news:plSWEVdOxYdBFAB9@ifwtech.co.uk...
> Cecil Moore wrote:
> >> I want you to stop and think a moment, about how an IDEAL INDUCTANCE
> >>behaves in an antenna. (Sorry to shout, but every time I type "ideal
> >>inductance" quietly, you seem to read something else :-)
> >
> >Ian, please take your own advice. It's pretty obvious that you are
> >thinking about an IDEAL INDUCTANCE in terms of a lumped circuit
> >analysis
> >which is invalid when analyzing a STANDING-WAVE ANTENNA.
>
> It makes life easier to compartmentalize your scientific world-view in
> that way.... but it is deeply, fundamentally wrong.
>
> In reality, all true scientific knowledge joins up seamlessly - that's
> how we *know* it's true! If we can't see how it joins up, that means we
> still have work to do. Dividing it into compartments that don't join up
> is lazy and will always lead you false.
>
> A fundamental physical property like inductance doesn't change its
> behaviour depending on the situation it finds itself in. If you cut the

> antenna wire and insert an ideal, lumped inductance, that inductance
> will behave in exactly the same way as it does in any other circuit.
>
> If you really looked hard at the math of antennas considered as
> transmission lines, you would find there is no problem whatever about
> inserting an ideal inductance, with no difference in current between its
> two terminals.
>
>
>
> --
> 73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
> http://www.ifwtech.co.uk/g3sek

## 890. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-20 01:12:41 UTC
From: Wally Gator <me@mycrib.com>
Message-ID: <dYidd.1388$5v2.611@fe2.columbus.rr.com>
Source record: 87984

horde52 wrote:

> For a mid-UHF fractal antenna, what kind of power can be used to
> transmit, 100 watts, 1000 watts, 10,000 watts...?

Fractal antennas are a myth.

I have yet to see one in QST or at the very least e-Bayï¿½.

## 891. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-20 01:23:52 UTC
From: fractenna@aol.com
Message-ID: <20041019212352.22466.00001142@mb-m06.aol.com>
Source record: 87985

>Fractal antennas are a myth.
>
>I have yet to see one in QST or at the very least e-Bayï¿½.
>

QST: They had their chance in 1994.

E-bay:If your'e waiting for liquidation stock, good luck: be a lo-ooooooong wait-)!

73,
Chip N1IR

# 892. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-20 02:25:57 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <4175cad0$1_4@127.0.0.1>
Source record: 87987

Tom Donaly wrote:

> Cecil Moore wrote:
>> Heh, heh, so you don't believe there is a current drop between the
>> current maximum point and current minimum point on a transmission
>> line with reflections? Seems to me going from 2 amps at a current
>> maximum to 0.1 amps at a current minimum is a measurable drop in
>> total current.
>
> Next, Cecil, you're going to be talking about a "current gradient"
> and a "scalar current field." Here's a question for you, Cecil, and
> Richard Harrison, and Yuri, too: how do you take the gradient of
> the current at a point on a transmission line, and, if were possible
> to do so, what is the physical significance of the result?

A total current gradient obviously exists on a transmission line
with current minimums and maximums. You can locate those points
with a simple pickup loop. The current gradient is caused
by the superposition of forward and reflected current waves as
described in any transmission line textbook.

"Taking the gradient" seems to me to be unnecessary and just a
logical diversion away from the qualitative conceptual discussion.
--
73, Cecil http://www.qsl.net/w5dxp

----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

## 893. Another BPL link - with an interesting tidbit

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-20 02:35:48 UTC
From: Bob MacBeth <BobbyMacBeth_NotReally_@HotMail.com>
Message-ID: <7akdd.7247$5b4.22986801@news.sisna.com>
Source record: 87988

www.rac.ca/regulatory/plc.htm

The interesting tidbit is at the bottom of the above-linked webpage.

"...Corridor Systems, has demonstrated a BPL system that works at 2.4 and
5.3 GHz. The system, is designed to provide broadband (250 MHz)
transmission suitable for high speed Internet access..."

Direct links copied from above webpage:

www.corridor.biz/news.htm

www.tvtechnology.com/dlrf/one.php?id=259

Very interesting.

# 894. Re: WI FI VS BPL

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-20 02:39:43 UTC
From: kelly@dvol.com
Message-ID: <d22b54c3.0410191839.7b387946@posting.google.com>
Source record: 87989

fractenna@aol.com (Fractenna) wrote in message
news:<20041019090029.29586.00002320@mb-m02.aol.com>...
> >Can't wait for Wi-MAX. It'll bury whatever bits and pieces of BPL are
> >still on the air 2-3 years out.
> >
> >Viva Wi-MAX! Bring it on!
> >
> >w3rv
>
> WiMax is a great thing, Brian. The main problem is actually one of antennas.

Understood but cell phones had some nasty antenna issues in their
early days which for the most part have been overcome.

> I think Wimax has a bright future, but I don't share your opinion that it will
> bury BPL. It seems more likely that it will replace Wi-Fi in extant deployments
> at some point.

Random ruminations:

Wi-Fi is for 300 *foot* radius hot spots. Wi-MAX will be for 2 *mile*
radius hot spots in urban areas and 10 mile radius hot spots in
suburban areas. Strikes me that Wi-MAX is a tad more than just an
updated version of Wi-Fi, yes? As is in no useful comparison
whatsoever.

Wi-MAX aside I'm convinced that BPL will bury itself if not via it's
lousy economics then by the pile of interference issues it'll have to
deal with. Or in any combination thereof. So I'll stick: Whatever
remnants of BPL which might still be around when Wi-MAX gets rolling
will hit the bit bucket of history with a dull thud nobody will hear.

Some *very* heavy hitters are up to their ears in investing in Wi-MAX,
Intel and Nokia are only two of 'em. Who of their caliber is futzing
with BPL? Nobody. Current Technologies? Ambient? . . . gimmeee a
break! I know you can connect those dots Nathan . . .

> My opinion, anyway.

Your crystal ball is just as fuzzy as mine is.

Good Night.

>
> 73,
> Chip N1IR

w3rv

# 895. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-20 02:55:14 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <4175d1ad$1_4@127.0.0.1>
Source record: 87990

Ian White, G3SEK wrote:

> Cecil Moore wrote:
>> Ian, please take your own advice. It's pretty obvious that you are
>> thinking about an IDEAL INDUCTANCE in terms of a lumped circuit analysis
>> which is invalid when analyzing a STANDING-WAVE ANTENNA.
>
> It makes life easier to compartmentalize your scientific world-view in
> that way.... but it is deeply, fundamentally wrong.

Would you mind providing some real-world proof of your argument or
are you satisfied just to play games in your mind?

> In reality, all true scientific knowledge joins up seamlessly - that's
> how we *know* it's true! If we can't see how it joins up, that means we
> still have work to do. Dividing it into compartments that don't join up
> is lazy and will always lead you false.

Most of our models involve shortcuts. For instance, the shortcut equations
for small loops do NOT work for large loops. Your lumped circuit shortcuts
don't work for distributed networks. When anything in the circuit is an
appreciable percentage of a wavelength, the lumped circuit model doesn't
work. That's why the distributed network model was invented.

> A fundamental physical property like inductance doesn't change its
> behaviour depending on the situation it finds itself in. If you cut the
> antenna wire and insert an ideal, lumped inductance, that inductance
> will behave in exactly the same way as it does in any other circuit.

It won't behave at all in reality because an ideal, lumped inductance exists
only in the human mind, not in reality. If you want to play mind games, be
my guest, but please don't try to pass your mental musings off as reality.

The question is not whether your mental current changes through an ideal,
lumped inductance existing only in your mind. The question is whether the
current changes through a real-world bugcatcher coil that exists in reality.

> If you really looked hard at the math of antennas considered as
> transmission lines, you would find there is no problem whatever about
> inserting an ideal inductance, with no difference in current between its
> two terminals.

An ideal inductance doesn't exist in reality so you are just playing
games in your mind. Every real-world coil has a phase shift, i.e. a
delay. A phase shift is all that is required for the superposed
currents at each end of the coil to be different from each other.

You seem to be saying that the phases of the forward and reflected
currents don't change through a one-foot diameter, one-foot long bugcatcher
coil made from 60 feet of wire? All I can say is, "Get real!"
--
73, Cecil http://www.qsl.net/w5dxp

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http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

## 896. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-20 03:10:51 UTC
From: derswede@aol.comspam.com
Message-ID: <20041019231051.01015.00002130@mb-m15.aol.com>
Source record: 87992

>It takes experience to pick the design that deals with the specs, including a
>HV spec.
>
>That's a commercial issue and beyond the scope of this NG.

Who sells them? "Commercial" indicates that such antennas are in production
and being offered for sale.

A
"...if one tolerates bad manners, they grow worse. I must find the oaf who did
this thing, explain to him his offense, give him a chance to apologise, then
kill him." (R.A. Heinlein, "The Cat Who Walks Through Walls")

# 897. Re: Gain per unit length of boom

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-20 03:11:05 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <jdlbn0t9k2or4aqivdg3s8j2e9jel480lt@4ax.com>
Source record: 87991

On Wed, 20 Oct 2004 00:21:10 GMT, "aunwin@insightbb.com"
<aunwin@insightbb.com@insightbb.com> wrote:
>datum curve

Hi Art,

No such thing. It takes data (plural) to make a curve. Datum
(singular) is a point (i.e. NOT a curve).

If you don't see the curve you are looking for, you have an NEC
engine, what is preventing you from using it to make one, or two, or
several?

73's
Richard Clark, KB7QHC

# 898. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-20 03:17:07 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <4175d6d0$1_4@127.0.0.1>
Source record: 87993

aunwin@insightbb.com wrote:

> Would you please describe for me the physical arrangement of an IDEAL
> inductance.

Art, picture a dimensionless point in your mind. Define that point as
an inductance without dimensions, without capacitance, and without resistance.
There is your "IDEAL inductance" and exists ONLY in the human mind and certain
computer models. Since it is dimensionless, the current into the point and the
current out of the point are the same current because they are the same point
and, of course, the dimensionless point is traversed instantaneously.

Now, without modification, extend that dimensionless concept to a one-foot
diameter, one-foot long bugcatcher coil, wound with 60 feet of real-world wire.
Assert that the bugcatcher coil has virtually identical characteristics to that
previous dimensionless point in your mind. Use a computer model's dimensionless
inductor feature to prove your point.

That's the present "physical arrangement". :-)
--
73, Cecil http://www.qsl.net/w5dxp

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http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
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## 899. Re: Fractenna lashes out at hams using BPL

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-20 03:19:50 UTC
From: Mike Coslo <mcoslo@adelphia.net>
Message-ID: <f-Sdnf2cfrDLROjcRVn-rg@adelphia.com>
Source record: 87994

Richard Clark wrote:
> On Mon, 18 Oct 2004 23:27:29 -0400, Mike Coslo <mcoslo@adelphia.net>
> wrote:
>
>
>> That is because Neo-Con's are a mutant form of liberal. Kind of like
>>liberals that have drank waaay too much coffee and turned mean! 8^)
>>
>> But they are still liberals.
>
>
> Hi Mike,
>
> You and I are probably the only two to understand that point, but when
> a right-winger who's been hood-winked into taking them into their
> fold.... They will swallow a lot of swill and proclaim it Champagne
> before admitting the lie.

There's the one about Yellow Dog Democrats and Second Coming Republicans... There are some Democrats that would vote for a yellow dog before voting Republican, and some Republicans that wouldn't vote for a Democrat if he came down from heaven to trumpet blasts from a heavenly host! 8^)

After-all, the pay off is so rewarding when
> the neocons leave the financial tap running for them (helps the swill
> go down).

But the bills always come due, don't they?

> We need only look at Nader embracing the only group that would carry
> him into elections and they are the resurrection of the American Nazi
> party.

Dunno if you heard the debate between Howard Dean and Ralphie boy. Now THAT is what a debate is supposed to be. Dean was pretty civil for the first part, and Nadar actually wasn't boring. But when Dean brought up Ralph's dubious buddies, it turned really exciting!

# 900. WiMAX 802.16a specification

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-20 03:39:36 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <q4mbn0pk1ndtc7tbq4ebipde4ugr265qh6@4ax.com>
Source record: 87995

WiMAX:
The IEEE 802.16 Air Interface Standard is truly a state-of-the-art specification for fixed broadband wireless access systems employing a point-to-multipoint (PMP) architecture.

In order to ensure interoperability between vendors equipment, the WiMAX technical working groups have completed the work for 10 to 66 GHz and has started work for the sub 11 GHz part of the standard.

This requirement eases the effect of multipath, allowing for wide channels, typically greater than 10 MHz in bandwidth.

The standard is designed to accommodate either Time Division Duplexing (TDD) or Frequency Division Duplexing (FDD) deployments, allowing for both full and half-duplex terminals in the FDD case.

The MAC [Media Access Control] was designed specifically for the PMP wireless access environment. It supports higher layer or transport protocols such as ATM, Ethernet or Internet Protocol (IP), and is designed to easily accommodate future protocols that have not yet been developed. The MAC is designed for very high bit rates (up to 268 mbps each way) of the truly broadband physical layer, while delivering ATM compatible Quality of Service (QoS); UGS, rtPS, nrtPS, and Best Effort.

The 802.16 MAC uses a variable length Protocol Data Unit (PDU) along with a number of other concepts that greatly increase the efficiency of the standard.

Practical cell sizes usually have a small radius of around 5 miles or less.

Data rates vary according to modulation rates (1.75MHz to 20MHz) and modulations (QPSK and QAM) to achieve 1Mbs to 75Mbs.

73's
Richard Clark, KB7QHC

## 901. Re: Fractenna lashes out at hams using BPL

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-20 03:59:36 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <fhnbn0htl9i5t3up0f6134rvpkvdlka438@4ax.com>
Source record: 87996

On Tue, 19 Oct 2004 23:19:50 -0400, Mike Coslo <mcoslo@adelphia.net>
wrote:
> Dunno if you heard the debate between Howard Dean and Ralphie boy. Now
>THAT is what a debate is supposed to be. Dean was pretty civil for the
>first part, and Nadar actually wasn't boring. But when Dean brought up
>Ralph's dubious buddies, it turned really exciting!

Hi Mike,

That is like watching grannies mud wrestle <yawn>

My best view of a debate was during the '68 election cycle, CBS news, Democratic Convention, ringside color commentators by Bill Buckley and Gore Vidal.

On network TV, coast to coast all day coverage (or maybe it only felt like it), limited channels (the only game on the tube) and if looks could kill, the space between them would have run redder than Cambodia swimming in blood (waiting for Kissinger to spring that genocide).

They parried back and forth in verbal jousts and Gore upped the ante by calling Bill a Crypto-Fascist. Bill sprang across the coffee table between them and tried to throttle him. The moderator was so surprised he watched them struggle on the floor. A quick knee to the groin would have settled it post-haste, but neither had anything to lose.

Today we get candy-asses like Buchasneer and Limabean who couldn't fight a swish with his limp wrists tied behind his back. :-)

73's
Richard Clark, KB7QHC

## 902. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-20 04:01:07 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <hiobn0h8jl1u21c30it7r5obau1o2trlie@4ax.com>
Source record: 87997

On 20 Oct 2004 03:10:51 GMT, derswede@aol.comspam.com (AA) wrote:
>Who sells them? "Commercial" indicates that such antennas are in production
>and being offered for sale.
Look in the yellow pages under heating elements.

## 903. Re: Is lighting nuts?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-20 04:11:44 UTC
From: Gary Schafer <gaschafer@comcast.net>
Message-ID: <n7pbn0tr4aif10qt1uougdme9kjs4gce75@4ax.com>
Source record: 87998

Grounding a tower does not help prevent it from getting hit by
lightning. It does however help route the charge safely to ground when
hit. A tower may actually be a little less likely to be hit if not
grounded but that is not a good thing to do.

Placing ground rods out in a radius like the spokes of a wheel around
a tower is a good thing. Placing a connecting wire between rods on the
circle is a waste of wire. It would be better to use that additional
wire for additional radials. The current will travel out away from the
tower. Each ground lead going away from the tower will share the
current. There is no significant current difference between the ground
rods so the ring connection does no good.

First a few ground rods should be placed as close to the tower as
possible to have the shortest lead length from the tower. Additional
ground rods placed on the "spokes" going out away from the tower at
distances twice the rod lengths along each spoke.

Having the connecting wires buried going to the other ground rods will
increase the ground system effectiveness also.

Not being struck because you have a good ground system is not proof
that the ground system prevented it.

73
Gary K4FMX

On Tue, 19 Oct 2004 16:15:04 -0400, "leaf" <leaf@prosensing.com>
wrote:

>Sorry for the spelling error crystalls should be crystals. When lightning
>hits the Earth, the heat it generates is enough to make glass which is an
>insulator. The ground rod becomes isolated from the Earth. If you spread
>out the contact area with the Earth as with the fence around the perimeter
>of the property, then the energy is not concentrated to one spot. The over
>all impedance is also much lower. I would install a ring grounding system
>around the tower. A 32ft. diameter ring would do nicely in a clay/rocky
>soil. Place 8ft. ground rods in the ground every 16 ft along the 32 ft.
>diameter circle (approx. 6 rods). Each rod is then connected to the tower
>base with a multistrand 00 copper wire and a ring of 00 copper to connect
>each rod together. The connections should be cad welded or at least treated
>with a deoxit coating to prevent corrosion. I have had excellent luck with
>this approach, no lightning hits and my tower sits up at 870ft. ASL or 650
>ft. above average terrain. Note: the tower has a strike counter hooked up
>to it so I know no hits have happened. Go to this link to read more
>http://www.polyphaser.com/ppc_pen_home.asp .

>
>Frank N1SIF
>
>"CIL" <lorentsonci@lycos.com> wrote in message
>news:5aoan0dvd1k1jv6go8phtfpbb78lg049id@4ax.com...
>>
>> >I would suspect a poor grounding system on the tower. If the ground is a
>> rod driven into the Earth, then the impedance needs to be as low as
>> possible. Once the ground system takes a surge, glass
>> (( (crystalls?)))
>> will formin the dirt on and around the rod. The impedance then climbs
>> and the numberof strikes to the tower increase. The amount of
>> impedance in your groundnetwork determines the amount of static charge
>> that can build on the towerand how fast the charge can bleed.
>>
>> (((The tower sites are only about 100 feet apart, ground substance is
>> the same, clay/rocks, 1st foot then clay.. The first tower ground, is
>> a 4 ft hole, with ï¿½" rebar then driven deeper,1.5ft, w/ horz bars 1ft
>> on center from bottom of hole to top, where a ï¿½ steel plate was welded
>> to vertical bars, and to the plate, strong hinge plate connected to 25
>> rohn tower. The 'other site', is two 4" pipe, 5ft, in the ground, and
>> welded to fence. Fence is 2"2/8 upset tubing that goes around
>> property/everything welded. ((fence is 5 foot tall) and as stated part
>> of the 'gournding system',,,? The first 'site' was not connected to
>> the primenter fence,,problem???)) If you are familur with the ''bird
>> tilting over and drinking from the cup", you can picture in your minds
>> eye, my 'tilting tower'. It is about 75ft tall, with a uhf/vhf duel
>> band at top of mast, four ft. below that is a two meter horz omni
>> ground plane.)))
>>
>> Can you describe how each tower was configured at the top and how it
>> was grounded? What is important to know if the top ended up with sharp
>> point (mast, VHF vertical antenna, etc.) or Yagi type antenna, like
>> tribander etc. without anything pointy protruding above.
>> Yuri, K3BU
>>
>> ((( Both towers carried almost the same 'items', vhf/uhf , and 4 ft
>> below that, clover leaf horz ground plane.)))
>>
>>
>> but their tower lighting chokes kept
>> lightning off the a-c power source.
>>
>> ((( What do you call these chokes, I know I have read about, but at
>> the moment I am blank.)))
>>
>>
>> The broadcaster starts his lightning protection at the tower top with
>> a small lightning rod extending above and beyond the beacon to take
>> the hit and avoid expensive repairs at the tower top.

>>
>>
>> ((( Is this something like the antennas I have seen that have a
>> 'center core' copper rod???)))
>>
>> Tower guy insulators are doubled and tripled where they connect to the
>> tower so that static breakdown occurs to the earth instead of at the
>> tower.
>>
>>
>> ((( Where do I 'see/read' about this??)))
>>
>>
>> One such line was on a small single story U-Stor-It building between
>> two very tall radio station towers, that was assumed to be lightning
>> proof due to it's location. It was hit and hit hard when neither
>> tower was hit
>>
>> .."How did your team "know" what was struck?
>>
>> """.my question was and is,,,, why?
>>
>>
>>
>>
>> ((((((((((((((((((This statement is the one that makes the
>> most sense to me))))))))))))))))
>>
>> Lightning is Female. 20 million volts & 100 thousand Amps will do as
>> it damm
>> well pleases!
>>
>> ((((Last, but not least,,,,,,, thank you, WILL implement input,
>> cl&73))))
>>
>>
>

# 904. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-20 04:24:41 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <dMldd.32732$QJ3.30105@newssvr21.news.prodigy.com>
Source record: 87999

Richard Harrison wrote:
> Jimmie wrote:
> "Coiling the wire has nothing to do with how it does or does not
> radiate,---."
>
> Good. Just leave your antenna rolled up.
>
> Best regards, Richard Harrison, KB5WZI
>

That's exactly what's done in some "frequency independant"
antennas. You can do it with logarithmic spirals or the
Archimedean kind, take your pick.
73,
Tom Donaly, KA6RUH

# 905. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-20 04:27:54 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <ePldd.32737$QJ3.26252@newssvr21.news.prodigy.com>
Source record: 88000

Richard Harrison wrote:

> Tom Donaly, KA6RUH wrote:
> ": how do you take the gradient of the current at a point on a
> transmission line?"
>
> Not sure I understand the question. Gradient is the rate of change and
> that`s the derivative of the current at a given point. Over a certain
> path it is the difference between the path ends and can be averaged for
> the path.
>
> For convenience, Kraus has collected transmission line formulas. I`m not
> a typist so I`ll just say they are near the end of the new edition, page
> 890. In the 1950 edition they can be fornd on pages 506 and 507, also
> near the end of the book.
>
> Work out your own example.
>
> Best regards, Richard Harrison, KB5WZI
>

Thank you, Richard, you just made my point.
73,
Tom Donaly, KA6RUH

# 906. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-20 04:33:28 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <sUldd.32744$QJ3.28569@newssvr21.news.prodigy.com>
Source record: 88001

aunwin@insightbb.com wrote:

> Ian
> Would you please describe for me the physical arrangement of an IDEAL
> inductance.
> I cannot visulise such a thing as I only have seen 'coiled ' inductors
> ,where each coil has
> a scientific and analytical relationship to its adjacent coils which thus
> CREATE an
> inductance and without which an 'inductance' cannot occur.
> I don't want to enter the augument that is ensuing on this thread but just
> want to be sure that
> there is not an inductance available that is not generated by proximity to
> other items including
> its own content (wire length)
> Using chemical terms, is it an element or a compound if you get my drift ,
> since you later
> mention that 'inductance.' has a "fundamental physical
> property................." that does not change
> regardles of a proximity situation.
> i.e. Self sufficient.?
> TIA
> Art
>
>
> "Ian White, G3SEK" <G3SEK@ifwtech.co.uk> wrote in message
> news:plSWEVdOxYdBFAB9@ifwtech.co.uk...
>
>>Cecil Moore wrote:
>>
>>>>I want you to stop and think a moment, about how an IDEAL INDUCTANCE
>>>>behaves in an antenna. (Sorry to shout, but every time I type "ideal
>>>>inductance" quietly, you seem to read something else :-)
>>>
>>>Ian, please take your own advice. It's pretty obvious that you are
>>>thinking about an IDEAL INDUCTANCE in terms of a lumped circuit
>>>analysis
>>>which is invalid when analyzing a STANDING-WAVE ANTENNA.
>>
>>It makes life easier to compartmentalize your scientific world-view in
>>that way.... but it is deeply, fundamentally wrong.
>>
>>In reality, all true scientific knowledge joins up seamlessly - that's
>>how we *know* it's true! If we can't see how it joins up, that means we

>>still have work to do. Dividing it into compartments that don't join up
>>is lazy and will always lead you false.
>>
>>A fundamental physical property like inductance doesn't change its
>>behaviour depending on the situation it finds itself in. If you cut the
>>antenna wire and insert an ideal, lumped inductance, that inductance
>>will behave in exactly the same way as it does in any other circuit.
>>
>>If you really looked hard at the math of antennas considered as
>>transmission lines, you would find there is no problem whatever about
>>inserting an ideal inductance, with no difference in current between its
>>two terminals.
>>
>>
>>
>>--
>>73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
>>http://www.ifwtech.co.uk/g3sek
>
>
>
Can you visualize a point mass, Art? An ideal inductance isn't a point
mass, but according to the textbooks, one is the mathematical analogue
of the other.
73,
Tom Donaly, KA6RUH

# 907. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-20 04:35:58 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <OWldd.32749$QJ3.12080@newssvr21.news.prodigy.com>
Source record: 88002

Cecil Moore wrote:

> Tom Donaly wrote:
>
>> Cecil Moore wrote:
>>
>>> Heh, heh, so you don't believe there is a current drop between the
>>> current maximum point and current minimum point on a transmission
>>> line with reflections? Seems to me going from 2 amps at a current
>>> maximum to 0.1 amps at a current minimum is a measurable drop in
>>> total current.
>>
>>
>> Next, Cecil, you're going to be talking about a "current gradient"
>> and a "scalar current field." Here's a question for you, Cecil, and
>> Richard Harrison, and Yuri, too: how do you take the gradient of
>> the current at a point on a transmission line, and, if were possible
>> to do so, what is the physical significance of the result?
>
>
> A total current gradient obviously exists on a transmission line
> with current minimums and maximums. You can locate those points
> with a simple pickup loop. The current gradient is caused
> by the superposition of forward and reflected current waves as
> described in any transmission line textbook.
>
> "Taking the gradient" seems to me to be unnecessary and just a
> logical diversion away from the qualitative conceptual discussion.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>
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> News==----
> http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000
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You and Richard need a refresher course in electromagnetics. I hope
Yuri doesn't fall into the same trap.
73,
Tom Donaly, KA6RUH

# 908. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-20 04:38:47 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <rZldd.32755$QJ3.17768@newssvr21.news.prodigy.com>
Source record: 88003

Cecil Moore wrote:

> aunwin@insightbb.com wrote:
>
>> Would you please describe for me the physical arrangement of an IDEAL
>> inductance.
>
>
> Art, picture a dimensionless point in your mind. Define that point as
> an inductance without dimensions, without capacitance, and without
> resistance.
> There is your "IDEAL inductance" and exists ONLY in the human mind and
> certain
> computer models. Since it is dimensionless, the current into the point
> and the
> current out of the point are the same current because they are the same
> point
> and, of course, the dimensionless point is traversed instantaneously.
>
> Now, without modification, extend that dimensionless concept to a one-foot
> diameter, one-foot long bugcatcher coil, wound with 60 feet of
> real-world wire.
> Assert that the bugcatcher coil has virtually identical characteristics
> to that
> previous dimensionless point in your mind. Use a computer model's
> dimensionless
> inductor feature to prove your point.
>
> That's the present "physical arrangement". :-)
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>
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> News==----
> http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000
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There are lots of ways to make inductors, (coils, transmission lines,
meander lines, etc.) but there is only one inductance.
73,
Tom Donaly, KA6RUH

# 909. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-20 04:49:52 UTC
From: "aunwin@insightbb.com"
Message-ID: <Q7mdd.395685$mD.169859@attbi_s02>
Source record: 88004

"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:4175d6d0$1_4@127.0.0.1...
> aunwin@insightbb.com wrote:
>
> > Would you please describe for me the physical arrangement of an IDEAL
> > inductance.
>
> Art, picture a dimensionless point in your mind. Define that point as
> an inductance without dimensions, without capacitance, and without
resistance.

I'll stop right there, Dimensionless objects which relies on proximity
effects
is beyond my ken. To use this as an aproach of dimensional devices with
NEC to prove something is like building on sand This is like using complex
circuitry
and ignoring connection lines that radiate. In mathematics we use a mythical
addition
of root minus one as a sort of gimmic to solve a problem but we always
remove the gimic
before the real world answers are given, yet you want to keep the gimmic,
ala an imaginary
thing which is dimensionless and thus has zero proximity effects even tho
proximitry effects
is what generates inductance in a dimensionless form. And you want me to use
this imaginary
dimensionless aproach with NEC which deals with the real world where
inductance cannot
be dimensionless ? This is where the coil argument started since the field
density inside a coil
is more than that at any point physically and dimensionaly outside the coil
which leads to lumped load errors.
I am hoping that Ian will address the question in a more serious way and not
as a way to
buttress a personal agenda. I suppose I should have made it a seperate
posting so it would
not be perceived in taking sides e.t.c. Actually I modelled the coil to
real world dimensions
with a NEC program with copious segments that supplied current levels at
multiple points
around each turn to get my answers which this thread now suggests that NEC
answers could me incorrect
thus I am following the thread but not partaking in it.
My personal belief is that making EZNEC a part of the debate is a mistake

since it contains
boundaries that most NEC computor do not have and the coil problem is
outside its useable
boundaries or imposed limits.If a lumped load is viewed as dimensionless
then a computor
can be excused as supplying a dimensionless response which can evoke a
'garbage in....'
type comment.
Like most technical things there is nothing wrong with the use of items
such as EZNEC
within the limits prescribed by Roy and the coil question is outside the
useable limits
of the EZNEC program.
This response is not meant to be personal to anybody or any program
mentioned
Art

> There is your "IDEAL inductance" and exists ONLY in the human mind and
certain
> computer models. Since it is dimensionless, the current into the point and
the
> current out of the point are the same current because they are the same
point
> and, of course, the dimensionless point is traversed instantaneously.
>
> Now, without modification, extend that dimensionless concept to a one-foot
> diameter, one-foot long bugcatcher coil, wound with 60 feet of real-world
wire.
> Assert that the bugcatcher coil has virtually identical characteristics to
that
> previous dimensionless point in your mind. Use a computer model's
dimensionless
> inductor feature to prove your point.
>
> That's the present "physical arrangement". :-)
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>
> ----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet
News==----
> http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000
Newsgroups
> ---= East/West-Coast Server Farms - Total Privacy via Encryption =---

## 910. Re: another lie

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-20 04:50:16 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <c8mdd.16352$nj.5150@newssvr13.news.prodigy.com>
Source record: 88005

Fractenna wrote:

>>I accepted Roy's offer, but with conditions. So
>>far, he has declined to accept those conditions.
>>
>>I did accept Chip's offer, though.
>>
>>IRT your other oratory ramblings: Incoherent
>>nonsense...
>>
>>73 de Chuck, WA7RAI
>>
>
>
> Yep:-) Sure did. I posed no conditions nor restrictions for Chuck. It's his
> antenna and his technology. I don't have any bias on how or why it works; I'll
> just measure it. Period.
>
> I will have no problems testing it with a professional outdoor range setup.
>
> No 's' meters here, friends.
>
> If a third party has offered to pay for the tests if they meet Chuck's extant
> specs, that's fine with me. In fact, my inclination at this point is to have
> that third party pay up directly to Chuck. I'm happy to do this for Chuck,
> gratis.
>
> Chuck can do what he wants with the data.
> Always happy to help a colleague.
>
> 73,
> Chip N1IR

Gee, Chip, that sounds very generous of you, but don't you
think you may be stabbing him in the back? I mean what if your
tests show that his claims were a bit on the hyperbolic side?
Wouldn't there be a danger that a lot of Chuck's customers would want
their money back?
73,
Tom Donaly, KA6RUH

# 911. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-20 05:16:49 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <4175f2de$1_4@127.0.0.1>
Source record: 88006

Tom Donaly wrote:
> You and Richard need a refresher course in electromagnetics. I hope
> Yuri doesn't fall into the same trap.

As usual, zero technical content from you.

Tom, here's a "circuit" for you.

```
+--------------------------------+
| |
source Load
| |
+--------------------------------+
```

The source is delivering 200 watts in the form of V=100V and
I=2A in phase. The load is 4050 ohms. Using your circuit model,
you assert that the current through the source is equal to the
current through the load since it is a series circuit. Yet, if
the current through the 4050 ohm resistor were actually 2.0A,
the power to the load would be about 16,000 watts, thus violating
the conservation of energy principle.

Is there a current drop from the source to the load? Of course!
Does this violate Kirchhoff's laws? Of course not!

Why doesn't your circuit model work? Because the wires
between the source and the load are 1/4WL of 450 ohm ladder-line
thus rendering the circuit model invalid for the application.

YOUR CIRCUIT ANALYSIS MODEL DOES *NOT* WORK ON DISTRIBUTED NETWORK
PROBLEMS!!!
--
73, Cecil http://www.qsl.net/w5dxp

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# 912. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-20 05:25:16 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <4175f4d7$1_4@127.0.0.1>
Source record: 88007

Tom Donaly wrote:
> There are lots of ways to make inductors, (coils, transmission lines,
> meander lines, etc.) but there is only one inductance.

Have you ever seen the equivalent circuit of a transmission
line presented with "only one inductance"?

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## 913. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-20 05:31:24 UTC
From: Wes Stewart <n7ws_@_yahoo.com>
Message-ID: <b0ubn05icvv4h7rtmvtlaatsoqvsmm8pvd@4ax.com>
Source record: 88008

On Wed, 20 Oct 2004 04:01:07 GMT, Richard Clark <kb7qhc@comcast.net>
wrote:

|On 20 Oct 2004 03:10:51 GMT, derswede@aol.comspam.com (AA) wrote:
|>Who sells them? "Commercial" indicates that such antennas are in production
|>and being offered for sale.
|Look in the yellow pages under heating elements.

ROTFLMAO

# 914. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-20 05:43:31 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <aaubn09tqe03sdb7efvsj40irqhpan4re9@4ax.com>
Source record: 88009

On Wed, 20 Oct 2004 04:49:52 GMT, "aunwin@insightbb.com"
<aunwin@insightbb.com@insightbb.com> wrote:

>Actually I modelled the coil to
>real world dimensions
>with a NEC program with copious segments that supplied current levels at
>multiple points
>around each turn to get my answers which this thread now suggests that NEC
>answers could me incorrect
>thus I am following the thread but not partaking in it.

Hi Art,

Read the thread where it is correctly described and stick with a
winner. After all, the difference between the point inductor, and the
helical one offers barely half a dB difference in the outcome. No one
here could possibly measure that spread accurately (about the quarter
of the width of an S-Meter's needle).

73's
Richard Clark, KB7QHC

## 915. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-20 05:45:34 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <imubn0hed0jusnparn7ar75k401qa0ebfv@4ax.com>
Source record: 88010

On Wed, 20 Oct 2004 00:16:49 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:
>Does this violate Kirchhoff's laws?
Of course it does, several times.

## 916. Re: another lie

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-20 06:52:18 UTC
From: fractenna@aol.com
Message-ID: <20041020025218.08576.00002635@mb-m07.aol.com>
Source record: 88011

>Gee, Chip, that sounds very generous of you, but don't you
>think you may be stabbing him in the back?

No;

I don't see that. Neither does Chuck.

If this were truly so, then surely a third party would pay for the testing
fully and without hesitation, don't you think?

73,
Chip N1IR

## 917. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-20 06:53:26 UTC
From: fractenna@aol.com
Message-ID: <20041020025326.08576.00002636@mb-m07.aol.com>
Source record: 88012

>Who sells them? "Commercial" indicates that such antennas are in production
>and being offered for sale

Yes. Drop me an e-mail and I'll be happy to provide details.

73,
Chip N1IR

## 918. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-20 09:30:42 UTC
From: Kaskghafmight@hotmail.com
Message-ID: <cl5b8a$8r5$1@news8.svr.pol.co.uk>
Source record: 88013

Hit or myth, they still bring in the discussion.

## 919. Re: Fractenna lashes out at hams using BPL

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-20 11:05:59 UTC
From: Mark <bigfathhairybiker@MAILhot.com>
Message-ID: <4176457c$0$2292$ed9e5944@reading.news.pipex.net>
Source record: 88014

"Mike Coslo" <mcoslo@adelphia.net> wrote in message

> What digital rig do you use, Mark?
>
> - Mike KB3EIA -
>

Errr... who me... use digital... you must be joking....

:-)

## 920. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-20 11:08:52 UTC
From: fractenna@aol.com
Message-ID: <20041020070852.03318.00002426@mb-m17.aol.com>
Source record: 88015

>Hit or myth, they still bring in the discussion.

No need. Not in this forum.

73,
Chip N1IR

# 921. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-20 11:30:17 UTC
From: k3bu@aol.comNoUsama
Message-ID: <20041020073017.03961.00005032@mb-m19.aol.com>
Source record: 88016

>Like most technical things there is nothing wrong with the use of items
>such as EZNEC
>within the limits prescribed by Roy and the coil question is outside the
>useable limits
>of the EZNEC program.

Art,
in EZNEC version 4.08 by using HELIX definition menu in WIRES you can define real coil, with segments. I did that at the beginning of this thread using 10m quarter wave loaded antenna showing the difference in the current at the coil ends and also what happens when you move the coil from 1/2 to 3/4 way up from the feed point. That correlates close to modeling of loading inductance by using stub and what was found by measurements in reality.
If one insists in modeling loading coil as inductance with zero physical size, then you get W8JI results (same current at the ends)
There is a progress, even if some still can't swallow it.

73 Yuri, K3BU.us

# 922. Re: Fractenna lashes out at hams using BPL

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-20 12:59:33 UTC
From: Robert <RB@comcast.net>
Message-ID: <Vitdd.291366$3l3.113201@attbi_s03>
Source record: 88017

Fractenna antennas are a joke , just another way to suck money from dumb
investors.

"Bob McBeth" <BobbyMcBeth_NotReally_@HotMail.com> wrote in message
news:Y4Ycd.2332$%n5.7031971@news.sisna.com...
> >> Don't forget, he's STILL not giving straight answers
> >> to the questions posed to him, nor providing
> >> independent sources for verification of his answers.
>
> "Fractenna"
> > It is important that you express care when making
> > statements that are false.
>
> Did anyone ever get to the bottom of who discovered radiocarbon dating
????
>
> MK:
> > You may not be antiquated, but you are without a doubt,
> > one of the silliest bastards I've ever come across on usenet.
> > ... I'm sure many will back me up on this conclusion.
>
> Amen!
>
>

## 923. Re: EH-antenna: sensation or fraude?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-20 13:23:54 UTC
From: bozidar.pasaric@ri.htnet.hr
Message-ID: <1glymuy.8xyx2k1ix6cr0N%bozidar.pasaric@ri.htnet.hr>
Source record: 88019

Walter Maxwell <w2du@iag.net> wrote:

> On Tue, 19 Oct 2004 21:22:02 +0200, bozidar.pasaric@ri.htnet.hr (Bozidar
> Pasaric) wrote:
>
> >Richard Clark <kb7qhc@comcast.net> wrote:
> >
> >>
> >> There is not one shred of science in any of this - except the words
> >> they use to disguise the fraud.
> >>
> >> 73's
> >> Richard Clark, KB7QHC
> >
> >Sorry, the previous message went out only partially. Here is the whole:
> >
> >Thanks to OM Mario, 9A4DE I finally got the answers I was looking for.
> >Visit these two sites:
> >1)
> >http://www.home.earthlink.net/~calvinf15/_technical/EH_antenna_test_repo
> >rt.pdf
> >2)
> >http://www.home.earthlink.net/~calvinf15/_technical/EH_antenna_test_repo
> >rt_2.pdf
> >
> >That means:
> >- practically: I am not going to build the EH antenna;
> >- theoreticallay: The EH antenna behaves exactly according to the
> >classical antenna theory.
> >Thanks everyone for taking part in the discusson.
> >Bozidar, 9a2hl
> >
> Hello, Bozidar,
>
> There seems to be a problem with the URL you posed above. I get the error msg
> 'page not available'. Can you fix the URL so we can see the quote?
>
> Walt, W2DU

Hello, Walt,

The URLs are OK. Today I could not get to the site either. But I know
from experience that sometimes it helps to shorten the URL. Delete all
after 'technical/' and then go through the menu. I tried it a few
minutes ago and it worked. I downloaded the 1.6 MB Report, and from the

next subtitle I printed the 27 pages Report. Good luck.
Bozidar, 9A2HL

# 924. Re: EH-antenna: sensation or fraude?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-20 13:23:56 UTC
From: bozidar.pasaric@ri.htnet.hr
Message-ID: <1glyna9.1e1eze21igqkuoN%bozidar.pasaric@ri.htnet.hr>
Source record: 88018

> >
> Hello, Bozidar,
>
> There seems to be a problem with the URL you posed above. I get the error msg
> 'page not available'. Can you fix the URL so we can see the quote?
>
> Walt, W2DU

Hi, Walt,
The URLs are OK. Today I also could not get to the site. From experience
I know that sometimes it helps to shorten the URL. A few minutes ago I
did it and got the site. Delete everything after 'technical/' and when
you come to the site, go through the Menu, and find the subtitle you
need. Good luck!
Bozidar, 9A2HL

## 925. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-20 13:30:13 UTC
From: derswede@aol.comspam.com
Message-ID: <20041020093013.16183.00000852@mb-m01.aol.com>
Source record: 88020

<< Yes. Drop me an e-mail and I'll be happy to provide details.

73,
Chip N1IR >>

Why? You posted the "commercial" claim in a public forum, please reply to same. I simply would like to know....if such antennas are commercially available, then please provide a URL or sales site with the information on the antennas. As an engineer, I am always interested in new/different technology, thus the desire to look at a commercial unit application. Or are you getting Shakespearian on me?

A

## 926. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-20 13:48:46 UTC
From: fractenna@aol.com
Message-ID: <20041020094846.16183.00000853@mb-m01.aol.com>
Source record: 87921

>Why? You posted the "commercial" claim in a public forum, please reply to
>same. I simply would like to know....if such antennas are commercially
>available, then please provide a URL or sales site with the information on
>the
>antennas. As an engineer, I am always interested in new/different
>technology,
>thus the desire to look at a commercial unit application. Or are you getting
>Shakespearian on me?
>
>A

Since I don't know who you are, it would be helpful to be professional and take it off line.

Best wishes,
Chip N1IR

## 927. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-20 13:53:35 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <f9rcn0htvsqk6p3mov8qu8qu25jfe0lh9f@4ax.com>
Source record: 87922

>Hit or myth, they still bring in the discussion.
a Myth is as good as a mile

# 928. Re: help with partial reception

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-20 14:09:45 UTC
From: bertiaux@yahoo.com
Message-ID: <546afb93.0410200609.40f5f986@posting.google.com>
Source record: 87923
Cross-posted to: sci.electronics.repair,rec.radio.amateur.antenna

> 
> Is the new antenna pointed in the right direction? Try turning it
> through all 360ï¿½ to see how that improves/degrades the situation.
> This presumes you have all the right connections of course.

yes, its pointed west as the guy at the station has suggested. i did
go up and rotate it through the compass points just to be sure there
wasn't a better direction for it.

> As you are using two antennas, how are you connecting them to the same
> TV or VCR? As you have tried this antenna individually and still
> found no happy conclusion, it would seem to be an elemental problem.

in seattle, this antenna scheme is sold specifically to pull in a
station that is west of the city, when all the other local stations
are in town. so my main antenna points north toward downtown seattle,
and this smaller one, that i mounted as instructed (on the same pole)
points west. there is this small plastic box that is part of this
kit. it too is mounted to the pole. i guess it's a splitter. i plug
the little and big antennas into the box and a third cable runs down
to the house. the station is not terribly far away - it used to come
in fine, and they haven't degraded the signal. i live kind of on a
hill so i don't think a building or hill is interfering with my signal
path. when the coax connector is plugged into the tv, and all the
other stations come in, channel 13 is snowy. you can barely make out
what is going on.

# 929. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-20 14:15:02 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41767103_4@127.0.0.1>
Source record: 87924

Richard Clark wrote:
> Read the thread where it is correctly described and stick with a
> winner. After all, the difference between the point inductor, and the
> helical one offers barely half a dB difference in the outcome.

The difference in the outcome of the currents is way more
than half a dB. It's more like 12 dB.
--
73, Cecil http://www.qsl.net/w5dxp

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# 930. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-20 14:17:57 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <417671b0_4@127.0.0.1>
Source record: 87925

Richard Clark wrote:

> Cecil Moore <w5dxp@hotmail.com> wrote:
>>Does this violate Kirchhoff's laws?
>
> Of course it does, several times.

Got news for you, Richard. The current drop from a current
loop to a current node is NOT a violation of Kirchhoff's laws.
It is a characteristic of distributed networks.
--
73, Cecil http://www.qsl.net/w5dxp

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## 931. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-20 14:21:42 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <huscn012ppspmm688s9o8kht23s7m1p5e5@4ax.com>
Source record: 87926

On Wed, 20 Oct 2004 09:17:57 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:
>a violation of Kirchhoff's laws.
that's right

## 932. Re: help with partial reception

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-20 14:27:07 UTC
From: bertiaux@yahoo.com
Message-ID: <546afb93.0410200627.43fd74f8@posting.google.com>
Source record: 87927
Cross-posted to: sci.electronics.repair,rec.radio.amateur.antenna

> 
> Although you've provided a good bit of detail, some questions still arise:
> just 'how' do you "touch the coax to the connection?" Are you touching just
> the inner conductor to the outside of the connector, or the inner conductor
> to the inner connection on the connector (not allowing the ground to make
> contact)? Are you touching the coax connector on the TV at all...perhaps
> instead the 300 ohm (if any) connectors?

i believe i am touching both pieces, ever so slightly. i tried one of
the other cables in the scheme that has a longer inner conductor - to
allow the connection of that alone, but it didn't improve the picture.
perhaps i really am only touching the gound part of the coax to the
ground part of the tv connector. that would explain why when i fully
engage the connector, the signal gets crappy. i will try some other
combinations to see if i can clarify what i am doing.

> 
> Without being a bit more specific, I doubt anyone's going to be able to help
> you. For one thing, I don't understand how the two antennas are connected
> on the pole in such a manner as to preclude interaction (perhaps a ch. 13
> trap in series with the 'all channel' antenna before the
> splitter/combiner?).

i mounted and pointed west a smaller antenna, onto the same pole as my
main antenna. there is a box on the pole as well where the two
antennas are connected and a third cable runs to the house.

> In any case, your problem is probably 'up the pole.' If it worked before, i
> t should work now; unless conditions have changed. Have any tall buildings
> been constructed between you and the transmitter?

no new tall buildings. my hunch is that the connector for the smaller
antenna, or the part of the splitter/combination box up there that is
for the smaller antenna, is failing. all the other stations still
work beautifully.

> My best advice would be to have the same people who installed the array (or
> other competant service people) service it. It sounds like your technical
> knowledge is limited, and I doubt you're going to want to climb that pole...

my technical knowledge is for sure limited, but i installed all this
stuff once and it worked. i guess i will be up on the roof this
weekend, taking a closer look at the small antenna connections.
thanks for the advice:)

## 933. Re: help with partial reception

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-20 14:33:30 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <d3tcn0psgr01il0fugdafsjlldv9esvjq7@4ax.com>
Source record: 87928
Cross-posted to: sci.electronics.repair,rec.radio.amateur.antenna

On 20 Oct 2004 07:09:45 -0700, bertiaux@yahoo.com (mediancat) wrote:

>>
>> Is the new antenna pointed in the right direction? Try turning it
>> through all 360ï¿½ to see how that improves/degrades the situation.
>> This presumes you have all the right connections of course.
>
>yes, its pointed west as the guy at the station has suggested. i did
>go up and rotate it through the compass points just to be sure there
>wasn't a better direction for it.
>
>> As you are using two antennas, how are you connecting them to the same
>> TV or VCR? As you have tried this antenna individually and still
>> found no happy conclusion, it would seem to be an elemental problem.
>
>in seattle, this antenna scheme is sold specifically to pull in a
>station that is west of the city, when all the other local stations
>are in town. so my main antenna points north toward downtown seattle,
>and this smaller one, that i mounted as instructed (on the same pole)
>points west. there is this small plastic box that is part of this
>kit. it too is mounted to the pole. i guess it's a splitter. i plug
>the little and big antennas into the box and a third cable runs down
>to the house. the station is not terribly far away - it used to come
>in fine, and they haven't degraded the signal. i live kind of on a
>hill so i don't think a building or hill is interfering with my signal
>path. when the coax connector is plugged into the tv, and all the
>other stations come in, channel 13 is snowy. you can barely make out
>what is going on.

Hi OM,

By this I presume you live south of Kent in Auburn or Puyallup (I live
in Seattle too).

TV in this area is so ubiquitous that you should get channel 13 by
waving your....

It sounds like you are trying to put Channel 13 into the UHF connector
instead of the VHF connector of your TV. The box you speak of sounds
like a VHF/UHF combiner, and I don't hear its twin at the other end of
the line being used (a VHF/UHF separator). If you are not using or do
not watch UHF (don't watch Channel 22?) then you need a simple
combiner. However, I think that is distinctly unlikely that you would
not be watching FOX - or maybe it's WB, I've gotten so use to the
cable channel mix I've lost track of the over-the-air slots.

Anyway, this sounds like an UHF/VHF splitting/combining problem now.

73's
Richard Clark, KB7QHC

# 934. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-20 14:34:39 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <4176759b$1_4@127.0.0.1>
Source record: 87929

Richard Clark wrote:

> Cecil Moore <w5dxp@hotmail.com> wrote:
>>a violation of Kirchhoff's laws.
>
> that's right

The current in a series loop is NOT constant when the loop is a
reasonable percentage of a wavelength and there are reflections
present. Please provide proof that violates Kirchhoff's laws.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

## 935. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-20 14:53:05 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <uoucn096frn6e9gm7pr367ftpop1p1a7lc@4ax.com>
Source record: 87930

On Wed, 20 Oct 2004 09:34:39 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:
>Please provide proof that violates Kirchhoff's laws.
Read your own post for proof.

## 936. The Best of All Worlds???

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-20 15:38:11 UTC
From: danibe@my-deja.com
Message-ID: <b73f7787.0410200738.7a1ac461@posting.google.com>
Source record: 87931

I am contemplating on combining the signals from two antennas onto one cable using some sort of an "RF combiner" (is this the right term? Is "RF mixer" a better term?).

The idea is that I combine the signal from a dedicated omnidirectional FM antenna and a dedicated omnidirectional VFH/UFH antenna, since I have only one cable run in the house and I want to use it for both FM and TV reception.

Does this idea make sense at all?

If so, what's the market name of this "RF combiner" device I should be shopping for? Can you recommend a specific one? (does Radio-Shack have such?)

Thanks,
Daniel

# 937. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-20 16:04:52 UTC
From: derswede@aol.comspam.com
Message-ID: <20041020120452.28718.00001186@mb-m05.aol.com>
Source record: 87933

<< >Why? You posted the "commercial" claim in a public forum, please reply to
>same. I simply would like to know....if such antennas are commercially
>available, then please provide a URL or sales site with the information on
>the
>antennas. As an engineer, I am always interested in new/different
>technology,
>thus the desire to look at a commercial unit application. Or are you getting
>Shakespearian on me?
>
>A

Since I don't know who you are, it would be helpful to be professional and take it off line.

Best wishes,
Chip N1IR >>

Simple request, complicated (non) answer. I merely ask for ONE commercial site using this technology. Your reply equals "no". Indeed, an answer worthy of Shakespeare.

"Much Ado About Nothing."

A

# 938. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-20 16:05:53 UTC
From: Andrey <a8421@intergate.bc.ca>
Message-ID: <10nd2r69lieio2f@corp.supernews.com>
Source record: 87932

Fractal antennas ... turned out to be useless. That's how I understand it.
It is not a myth, as someone here said it. Drawing "fractal dipole" is shown
in "Antennas for all applications" - there is such a book. It,
anecdotically, does not do you much of anything.
Looks fancy, that's it.

There were bunch of articles promising miracles, but it did not work
according to the promises, otherwise we would hear about it, see them
around.

Andrey

"AA" <derswede@aol.comspam.com> wrote in message
news:20041020093013.16183.00000852@mb-m01.aol.com...
> << Yes. Drop me an e-mail and I'll be happy to provide details.
>
> 73,
> Chip N1IR >>
>
> Why? You posted the "commercial" claim in a public forum, please reply to
> same. I simply would like to know....if such antennas are commercially
> available, then please provide a URL or sales site with the information on
the
> antennas. As an engineer, I am always interested in new/different
technology,
> thus the desire to look at a commercial unit application. Or are you
getting
> Shakespearian on me?
>
> A

## 939. Re: help with partial reception

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-20 16:20:54 UTC
From: WB2JKX <mycall-N0SPAM@arrl.net>
Message-ID: <Gfwdd.14686$OD2.2007@bgtnsc05-news.ops.worldnet.att.net>
Source record: 87934
Cross-posted to: sci.electronics.repair,rec.radio.amateur.antenna

mediancat <bertiaux@yahoo.com> wrote in message
news:546afb93.0410200627.43fd74f8@posting.google.com...
> >
> > Although you've provided a good bit of detail, some questions still
arise:
> > just 'how' do you "touch the coax to the connection?" Are you touching
just
> > the inner conductor to the outside of the connector, or the inner
conductor
> > to the inner connection on the connector (not allowing the ground to
make
> > contact)? Are you touching the coax connector on the TV at
all...perhaps
> > instead the 300 ohm (if any) connectors?
>
> i believe i am touching both pieces, ever so slightly. i tried one of
> the other cables in the scheme that has a longer inner conductor - to
> allow the connection of that alone, but it didn't improve the picture.
> perhaps i really am only touching the gound part of the coax to the
> ground part of the tv connector. that would explain why when i fully
> engage the connector, the signal gets crappy. i will try some other
> combinations to see if i can clarify what i am doing.
>

It sounds like you no longer have a good circuit up to your antenna, and by
just touching one conductor to the TV antenna connector your downlead is
acting like a "longwire antenna", which gives some signal. When it is fully
connected, the shield is grounded and now little if any signal reaches the
TV.

## 940. Re: Is lighting nuts?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-20 16:21:25 UTC
From: raiar@bbs.galilei.com.nospam
Message-ID: <41768d65.107422859@news.galilei.com>
Source record: 87935

Hi Jack

That is probably true and the reason the project was abandoned!

Step Leaders can form and reach up from almost any grounded source, but more often than not, the eventual discharge causes no appreciable harm.

The small study I helped with was some 25 or 30 years ago and I really don't remember too much of the details about it, other than apparent physical damage was almost always within our red zones.

I don't think the spheres we were using were anywhere near 300 feet in diameter, if I recall they were like 36 feet, 72 feet and 108 feet. Regardless of the size of the ball, on most structures the red zone was in the same place. Only on very tall structures would the red zones be more than one zone at varying heights along the structure.

I do remember our accuracy for the town we modeled was very high over 90%, but then too, we had a LOT of red zones as well since we were using like 5 different sizes of balls to mark these zones.

You also have to remember, back when I was in Skewl, the correct answer to a question was considered WRONG. And the wrong answer correct. EG: Number of Elements, the WRONG answer the skewl demanded as correct was 45 Elements NO MORE NO LESS, and you had better not forget the NO MORE NO LESS phrase!
There are 92 Natural Elements and about 114 Elements Maybe More.
But if you put that on your exam, you were graded as the answer being WRONG.

MOST of the stuff I learned in skewl was Erroneous in Real Life, I don't doubt that our lightning experiments were also!

TTUL
Gary

## 941. Re: Is lighting nuts?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-20 16:21:27 UTC
From: raiar@bbs.galilei.com.nospam
Message-ID: <41768b76.106927906@news.galilei.com>
Source record: 87936

Hi Richard

If you recall, I lost a tower to a lightning strike.
Took us forever to figure out why it came down, but we finally did.
Water built up in the leg of the tower, the lighting turned the water
to steam causing the leg to explode.

In some minor cases we found the places where lightning struck through
burn and/or pit marks combined with visual observations of bystanders!
Other times, the foot long melted out section of guttering was a dead
giveaway along with the distortion of the rest of the guttering to
ground.

TTUL
Gary

# 942. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-20 16:58:12 UTC
From: richardharrison@webtv.net
Message-ID: <8843-41769924-565@storefull-3253.bay.webtv.net>
Source record: 87938

Tom Donaly wrote:
"You and Richard need a refresher course in electromagnetics."

This Richard agrees a refresher course could help. I no longer read the Proceedings of the IRE for fun. It`s been over 50 years since I last darkened the halls of academia.

I remember a few things. One hangup I see here is the rule that the current in a series circuit is always the same everywhere.

True for circuits small in terms of wavelength. False for unmatched (not terminated in Zo) circuits of a size significant in terms of wavelength.

The standing-wave antennas of this thread are less than 1/4 wavelength, but they`re still significant in terms of wavelength with or without loading coils. They are open-circuited and make a big reflection from their open-circuited ends. This reflection causes a current which varies from zero at the open-circuit end to something substantial back a ways from the open-circuit. Between substantial and zero is a current drop.

My favorite author. F.E. Terman depicts this current distribution in a dipole (two 1/4-wave antennas back to back) in Fig. 23-2 on page 866 of his 1955 edition. For a whip worked against ground, the current distribution is either half of the dipole representation.

Look at Fig.23-2. Anyone can see the current drops to zero at the antenna tips. Loading coils won`t change that. Coils added to bring total antenna inductance to resonance with its capacitance occupy space. Current through a loading coil takes time to traverse the coil. By the time current has made the trip through the coil, current arriving from the source is out of phase to some extent with that arriving through the coil. The delays in transit to both ends of the coil are likely not equal. The inequality in phase results in a difference in volts, amps, and impedance at the two coil ends.

Recall, we are discussing r-f, traveling as a wave from both terminals of a generator. It is not d-c emerging from one battery terminal and entering another.

Cecil is exactly correct in his characterization of how waves supeerpose to produce standing-wave variations in voltage, current, and impedance in the total series circuit.

Proof has been offered by modeling, and measurement. You may accept or reject the observations of others. You could also make your own.

Best regards, Richard Harrison, KB5WZI

# 943. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-20 17:03:40 UTC
From: "aunwin@insightbb.com"
Message-ID: <LTwdd.399140$mD.353509@attbi_s02>
Source record: 87937

Yuri
I was relying on statements from Roy in the past where close spaced wires
causes errors.
In a inductance coil each wire is in close proximetry to other wires in the
coil that undergo
voltage changes Thus by his statements his limited number of segments
available could cause errors.
It was for this reason my modelling picture was the image of a real coil
with close spaced
coils und unlimited segments available which when increased did not change
the supplied.results,
the test for finality in modeling.
One of the reasons I chose this aproach was when modeling critically coupled
coils, lumped loads
which are imaginary and dimensionless gave problems with critically coupled
distances from the
center line of a coil ie inside the coil, to distances to outside the coil
in a single plane, as well as the
capacitive coupling provided by the length and shape of the coil
To me it was important for the program to do it's job with a real life
coil without any intrusions
and assumptions imposed by the operator. If a program has limitations
imposed then it is a sign
that human overuling intervention is required to prevent the program from
running amuck.
But as I stated earlier, I have no intention of getting involved in this
thread with its infighting
when I respect some people from both camps.and where as previously stated by
a poster
some responses are posed like a language but are non decipherable
Art

"Yuri Blanarovich" <k3bu@aol.comNoUsama> wrote in message
news:20041020073017.03961.00005032@mb-m19.aol.com...
> >Like most technical things there is nothing wrong with the use of items
> >such as EZNEC
> >within the limits prescribed by Roy and the coil question is outside the
> >useable limits
> >of the EZNEC program.
>
> Art,
> in EZNEC version 4.08 by using HELIX definition menu in WIRES you can
define
> real coil, with segments. I did that at the beginning of this thread using

10m
> quarter wave loaded antenna showing the difference in the current at the
coil
> ends and also what happens when you move the coil from 1/2 to 3/4 way up
from
> the feed point. That correlates close to modeling of loading inductance by
> using stub and what was found by measurements in reality.
> If one insists in modeling loading coil as inductance with zero physical
size,
> then you get W8JI results (same current at the ends)
> There is a progress, even if some still can't swallow it.
>
> 73 Yuri, K3BU.us

# 944. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-20 17:17:28 UTC
From: richardharrison@webtv.net
Message-ID: <8846-41769DA8-21@storefull-3253.bay.webtv.net>
Source record: 87941

Richard Clark wrote:
"Read your own post for proof."

An antenna loading coil may have unequal current ingress and egress without violating Kirchoff`s law the same way a speaker matching transformer or pi-network does. The input and output impedances are different, though the power input and output are nearly the same.

Best regards, Richard Harrison, KB5WZI

## 945. Re: Is lighting nuts?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-20 17:20:24 UTC
From: Jack Painter <223bthp@cox.net>
Message-ID: <t7xdd.17178$%t3.14077@lakeread01>
Source record: 87939

"Gary V. Deutschmann, Sr." <raiar@bbs.galilei.com.nospam> wrote
> Hi Jack
>
> That is probably true and the reason the project was abandoned!
>
> Step Leaders can form and reach up from almost any grounded source,
> but more often than not, the eventual discharge causes no appreciable
> harm.
> TTUL
> Gary

Hi Gary, I understand completely. Lightning attaching to an object is not where the damage comes from, it's the way the damn stuff *leaves* that causes the problems! ;-)

Notwithstanding your hopefully unique experience where water in a tower leg was superheated. Some private company specifications call for an air terminal and grounding electrode conductors on all their towers, including at each fixture (antenna) attachment point.. Even most tower manufacturers call this unnecessary, recommending bonding of air terminals (if used) to the tower legs only. But I suppose that a grounding electrode conductor from tower-top to ground *could* have prevented your loss, by reducing some of the current in the tower legs in favor of the heavy GEC coming down alongside them.

Best regards,

Jack

## 946. Re: Another lie...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-20 17:22:40 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cl66t0$662$1@sparta.btinternet.com>
Source record: 87940

> The extreme example comes from continuous loading. The entire antenna is
> a solenoid or coil of wire. The impedance at the tip is very high. At
> its feedpoint, the impedance is low. The current in the coil tapers from
> one end to the other. Adding conductors to either or both ends of the
> coil changes the current but does not usually eliminate current taper in
> the coil.
>
> Best regards, Richard Harrison, KB5WZI

==========

It is important to make clear it is NOT a linear taper.

The current and voltage are distributed along the helix in Sine or
Cosine-form as with a 1/4-wave resonant wire antenna.

Adding conductors to its ends merely truncates the same kind of
distribution.

This applies to both short-and-fat and long-and-thin helices.

Instead of confusing the issue by stretching the imagination and messing
about with reflections and standing waves, analysis of behaviour is more
simply and accurately done by basic transmission line formulae.

Which automatically takes the coil's all-important capacitance to the rest
of the world into account.

Zo = Sqrt(L/C).
Velocity = 1/Sqrt(L*C).
Phase shift = Omega*Sqrt(L*C).

It's as simple as that!

PS. Replace "does not usually eliminate" with "never eliminates"
----
Regards, Reg.

# 947. Re: help with partial reception

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-20 17:31:41 UTC
From: jakdedert <jdedert@bellsouth.net>
Message-ID: <Vexdd.87139$yp.29862@bignews1.bellsouth.net>
Source record: 87942
Cross-posted to: sci.electronics.repair,rec.radio.amateur.antenna

Richard Clark wrote:
> On 20 Oct 2004 07:09:45 -0700, bertiaux@yahoo.com (mediancat) wrote:
>
>>>
>>> Is the new antenna pointed in the right direction? Try turning it
>>> through all 360° to see how that improves/degrades the situation.
>>> This presumes you have all the right connections of course.
>>
>> yes, its pointed west as the guy at the station has suggested. i did
>> go up and rotate it through the compass points just to be sure there
>> wasn't a better direction for it.
>>
>>> As you are using two antennas, how are you connecting them to the
>>> same TV or VCR? As you have tried this antenna individually and
>>> still found no happy conclusion, it would seem to be an elemental
>>> problem.
>>
>> in seattle, this antenna scheme is sold specifically to pull in a
>> station that is west of the city, when all the other local stations
>> are in town. so my main antenna points north toward downtown
>> seattle, and this smaller one, that i mounted as instructed (on the
>> same pole) points west. there is this small plastic box that is
>> part of this kit. it too is mounted to the pole. i guess it's a
>> splitter. i plug the little and big antennas into the box and a
>> third cable runs down to the house. the station is not terribly far
>> away - it used to come in fine, and they haven't degraded the
>> signal. i live kind of on a hill so i don't think a building or
>> hill is interfering with my signal path. when the coax connector is
>> plugged into the tv, and all the other stations come in, channel 13
>> is snowy. you can barely make out what is going on.
>
> Hi OM,
>
> By this I presume you live south of Kent in Auburn or Puyallup (I live
> in Seattle too).
>
> TV in this area is so ubiquitous that you should get channel 13 by
> waving your....
>
> It sounds like you are trying to put Channel 13 into the UHF connector
> instead of the VHF connector of your TV. The box you speak of sounds
> like a VHF/UHF combiner, and I don't hear its twin at the other end of

> the line being used (a VHF/UHF separator). If you are not using or do
> not watch UHF (don't watch Channel 22?) then you need a simple
> combiner. However, I think that is distinctly unlikely that you would
> not be watching FOX - or maybe it's WB, I've gotten so use to the
> cable channel mix I've lost track of the over-the-air slots.
>
> Anyway, this sounds like an UHF/VHF splitting/combining problem now.
>
Since most set nowadays have the U/V splitter built in, I doubt that is what he has. Up the pole is probably a simply 2 to 1 wideband splitter. I'm assuming his 'main' antenna is an 'all channel' type, and the secondary is cut specifically to channel 13.

I'd go out and buy a new splitter, some coax, connectors (with rubber boots and weatherproofing grease). Somewhere there's a dodgy connection; and if he has all those on hand, he'll be able to fix it. Perhaps he can reuse the old coax, if he doesn't have to cut off too much in order to 'make' the new connections. If water has migrated down the coax, he's better off to replace it anyhow.

I'd also pay particular attention to the connections on the antennas themselves, as well as verify their general condition.

I'd bet anything he'll find some corrosion up there somewhere....

With a system set up as described, I'm surprised he doesn't get some ghosting on channel 13 from the reflected signal coming off his main antenna. If so, trapping that channel before the splitter (combiner) would reduce the effect.

jak

jak

> 73's
> Richard Clark, KB7QHC

# 948. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-20 17:59:46 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <cl693h$r9a$1@news.service.uci.edu>
Source record: 87943

Tom Donaly wrote:
> Next, Cecil, you're going to be talking about a "current gradient"
> and a "scalar current field." Here's a question for you, Cecil, and
> Richard Harrison, and Yuri, too: how do you take the gradient of
> the current at a point on a transmission line, and, if were possible
> to do so, what is the physical significance of the result?
> 73,
> Tom Donaly, KA6RUH

The standing wave current profile along, for example, a quarter wave radiator is a cosine function. The gradient then would be the derivative of the cosine function which is a -sine function.

73, ac6xg

## 949. Tower Help 50 ft Rohn

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-20 18:18:23 UTC
From: yoyo <yoyo@yahoo.com>
Message-ID: <NZxdd.42845$_U4.14192@fe47.usenetserver.com>
Source record: 87944

I have been given a 50 ft Rohn tower (galvanized).

Problem is, I have to get it down. and I have a couple questions.

Weight of each section?

estimate of a resonable charge to have someone do it for me? I don't like climbing

Is it worth paying 160 bucks to rent a 50 ft cherry picker to do it?

Thanks

Jonathan
KB8PFA

# 950. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-20 18:32:06 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <4176ad47_4@127.0.0.1>
Source record: 87946

Richard Clark wrote:
> Cecil Moore <w5dxp@hotmail.com> wrote:
>>Please provide proof that violates Kirchhoff's laws.
>
> Read your own post for proof.

If you think my postings provide proof of a violation of
Kirchhoff's laws, you simply do not understand distributed
network systems and analysis.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

## 951. Re: EH-antenna: sensation or fraude?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-20 18:35:37 UTC
From: bozidar.pasaric@ri.htnet.hr
Message-ID: <1glynvc.11u3cd11de1i2wN%bozidar.pasaric@ri.htnet.hr>
Source record: 87945

Walter Maxwell <w2du@iag.net> wrote:

> On Tue, 19 Oct 2004 21:22:02 +0200, bozidar.pasaric@ri.htnet.hr (Bozidar
> Pasaric) wrote:
>
> >Richard Clark <kb7qhc@comcast.net> wrote:
> >
> >>
> >> There is not one shred of science in any of this - except the words
> >> they use to disguise the fraud.
> >>
> >> 73's
> >> Richard Clark, KB7QHC
> >
> >Sorry, the previous message went out only partially. Here is the whole:
> >
> >Thanks to OM Mario, 9A4DE I finally got the answers I was looking for.
> >Visit these two sites:
> >1)
> >http://www.home.earthlink.net/~calvinf15/_technical/EH_antenna_test_repo
> >rt.pdf
> >2)
> >http://www.home.earthlink.net/~calvinf15/_technical/EH_antenna_test_repo
> >rt_2.pdf
> >
> >That means:
> >- practically: I am not going to build the EH antenna;
> >- theoreticallay: The EH antenna behaves exactly according to the
> >classical antenna theory.
> >Thanks everyone for taking part in the discusson.
> >Bozidar, 9a2hl
> >
> Hello, Bozidar,
>
> There seems to be a problem with the URL you posed above. I get the error msg
> 'page not available'. Can you fix the URL so we can see the quote?
>
> Walt, W2DU

The URLs are OK. Today I could not get to the site, either. From
experience I know that if you shorten the URL, it sometimes helps.
Delete all after 'technical/', and then go through the menu which will
appear on the screen. I did so and it was OK. Good luck.
Bozidar, 9A2HL

# 952. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-20 18:47:19 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <4176b0da_4@127.0.0.1>
Source record: 87947

Jim Kelley wrote:
> The standing wave current profile along, for example, a quarter wave
> radiator is a cosine function. The gradient then would be the
> derivative of the cosine function which is a -sine function.

Yep, the feedpoint is at a current loop (max). The open end of the quarter wave radiator is obviously at a current node (min). There are electrically 90 degrees of signal between the current loop and the current node on a standing-wave antenna or on a transmission line with standing waves.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

## 953. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-20 18:52:06 UTC
From: fractenna@aol.com
Message-ID: <20041020145206.11769.00002656@mb-m29.aol.com>
Source record: 87948

>There were bunch of articles promising miracles, but it did not work
>according to the promises, otherwise we would hear about it, see them
>around.
>

Very interesting. Can you point out the citations of these articles promising miracles?

Also, how often do you hear about bacon? Or the wonders of frozen food? At some point, the new stuff mainstreams, and you won't hear as much about it:-) I, for one, am very happy with the point that the technology has reached.

Let's see...British Columbia...hmmm...pipelines; hotels (you know where Banff is, right?); farm inventory; coffee shops; retail stores; yadayada.

Look harder. You might learn something.

73,
Chip N1IR

## 954. Re: another lie

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-20 19:10:42 UTC
From: Chuck <wa7rai@raibeam.com>
Message-ID: <wEydd.8247$6P5.7151@okepread02>
Source record: 87949

Roy Lewallen <w7el@eznec.com> wrote in message
news:10nbemj2pp2ek1c@corp.supernews.com...
> Things are looking up. Instead of patently false statements, you've
> advanced to musings that simply make no sense. Since most readers will
> hopefully recognize them for what they are, no response is necessary.
> Actually, no rational response is even possible.

Hi Roy,

If what I am saying makes no sense,
then the information contained in the
NEC2 documentation must be a fairy
tale and you must be Merlin the
magician.

I invite everyone to take the time to
look at section 3 "Transmission line
modeling" on page 72, of the NEC2
documentation.

http://www.nec2.org/other/nec2prt1.pdf

It explains the uses of both implicit and
explicit tx line models, and under what
conditions the explicit model (thin-wire
kernel) should be used.

Looking a look at previous statements;

First, the thin wire kernel is invoked
automatically:

> The extended thin wire kernel is invoked automatically when the model is
> such that it's needed, according to the criteria given in the NEC
> manual.

Then the 2-port network is invoked
automatically:

> I clearly stated in an earlier posting that EZNEC implements the
> extended thick-wire kernel as required by the model. (The thin-wire
> kernel is the default.)

And the thin-wire kernel now becomes
the default. ("default" implies no need
to "invoke" as it is the preferred function
by default - which makes no sense,
since the 2-port network has the most

common usage - W8JK, log periodic
dipoles, etc., etc., and uses less
resources.)

The NEC2 documentation even
suggests there may be instances where
both models should be implemented
simultaneously.

When asked for an explanation of these
contradiction, I get my character
assassinated instead.

So now we're supposed to believe either
the thin-wire kernel or the 2-port network
is invoked automatically, determined by
a *mysterious* set of criteria.

Mysterious simply because that criteria
cannot be divulged...

This is real science, indeed. Given that
no one can ascertain which tx line model
is being implemented, it leaves any
resulting outcome ITR in question!

I suggest we have here a situation akin
to VP Cheney giving disingenuous excuses
as to why no one should see the records
of his covert energy meetings.

Stonewalling will prove to be an exercise
in futility as the truth will come out, one
way or another!

73 de Chuck, WA7RAI

>
> Roy Lewallen, W7EL
>
> Chuck wrote:
> > Roy Lewallen <w7el@eznec.com> wrote in message
> > news:10nb1i3c0nelv20@corp.supernews.com...
> > [... ]
> >
> >>I clearly stated in an earlier posting that EZNEC implements the
> >>extended thick-wire kernel as required by the model. (The thin-wire
> >>kernel is the default.)
> >
> >
> > Hi Roy,
> >
> > For clarity, let it be established that the

> > term "wire kernel" and "wire model" (the
> > term used in the NEC2d documentation) will
> > be considered as one and the same in this
> > discussion.
> >
> > That said, I find it extremely hard to believe
> > that the wire model used for interconnecting tx
> > lines, which normally would be implemented
> > only in the special case of unbalanced
> > terminations, and one that uses the most
> > resources, would be designated as the
> > default wire model. It defies all logic.
> >
> > When asked what criteria your program uses
> > to determine which wire model to implement,
> > and why it is not a choice the user can make
> > - as it should be - you responded with a rather
> > paranoid and pejorative diatribe attacking my
> > character... what am I supposed to assume
> > from that?
> >
> > In any event, these were honest questions
> > which you chose to evade, and continue to do
> > so. All things considered, it is easy to make
> > the assumption that the thin-wire model is not
> > implemented in EZNEC, and you're simply
> > trying to spin your way out of a hole.
> >
> > Shame on you!
> >
> > 73 de Chuck, WA7RAI
> >
> >
> >
> >

## 955. Re: The Best of All Worlds???

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-20 19:42:16 UTC
From: Bob Bob <bcnntp@optusnet.com.au>
Message-ID: <plri42-hmg.ln1@p400bob.lse.com.au>
Source record: 87953

Hi Daniel

Generally a mixer in radio terms is a device where two frequencies are input and the sum or difference of them is the output. So you are talking about a combiner..

I think you'll have some trouble with your intentions.

It is relatively easy to combine the signals from two antennas and then split them into two receiving devices. (The antenna combiner might be the same as the splitter only connected the opposite way. Its usually a passive device so will work equally well in both directions)

The problem is that since the bands of use are similar you cant stop (say) the FM omni receiving some signal from the TV band transmission appearing at the input to the TV. This will most likely cause ghosting or other degradation.

I suspect that you mean unidirectional VHF/UHF antenna rather than an omni. Using an omni is very likely to also create TV ghosting.

You could conceivably notch the output of the omni to not pass TV signals but by now the project is getting kind of expensive.

I suggest you just use the one TV unidirectional antenna and have a single splitter inside the house connected to the FM radio and TV. You may get sufficient FM signal for your needs.

You are looking to buy a TV splitter to run two TV's in the house. Shd be pretty cheap.

Cheers Bob VK2YQA

Daniel wrote:
> I am contemplating on combining the signals from two antennas onto one
> cable using some sort of an "RF combiner" (is this the right term? Is
> "RF mixer" a better term?).
>
> The idea is that I combine the signal from a dedicated omnidirectional
> FM antenna and a dedicated omnidirectional VFH/UFH antenna, since I
> have only one cable run in the house and I want to use it for both FM
> and TV reception.
>
> Does this idea make sense at all?
>
> If so, what's the market name of this "RF combiner" device I should be
> shopping for? Can you recommend a specific one? (does Radio-Shack have

> such?)
>
> Thanks,
> Daniel

## 956. Re: Tower Help 50 ft Rohn

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-20 19:44:52 UTC
From: Jack Painter <223bthp@cox.net>
Message-ID: <Vezdd.17180$%t3.13201@lakeread01>
Source record: 87950

"yoyo" <yoyo@yahoo.com> wrote
> I have been given a 50 ft Rohn tower (galvanized).
>
> Problem is, I have to get it down. and I have a couple questions.
>
> Weight of each section?
>
> estimate of a resonable charge to have someone do it for me? I don't
> like climbing
>
> Is it worth paying 160 bucks to rent a 50 ft cherry picker to do it?
>
>
> Thanks
>
> Jonathan
> KB8PFA

Hi Jonathon, a lengthy discussion ensued on this group months ago, regarding the failure of a home-made gin pole and near disaster avoided by some very capable Parisians. Theirry's LUXORION website has outstanding information about all aspects of the hobby, including tower erection. But he adapted this post of mine regarding the mindset of amateurs to be jack-of-all tradesman (even I don't claim that ;-) The full topic and article can be found at:

http://www.astrosurf.com/lombry/qsl-tower-assembly6.htm

It reads in part (Thanks, Thierry, for your outstanding work):

Jack
--

Take care assembling an antenna system

If you are not confident and used to erect antenna towers, do not entrust the job to close friends or so-called skilled radio amateurs... Your life and the one of your friends is more important that sparing a few money in doing the job yourself without competences.

Here is the comments of Jack, an ironworker in this regard : "there are some places and some jobs where if you make a mistake, people, either yourself or others or both, will be killed. Amateur Radio is not defined as one of these occupations, and no amateur has any business working aloft with rigging and equipment unless he was properly trained in that field. That certainly doesn't stop many from doing it, but it doesn't make it safer because they

survive it. The skills sets that seem to congregate in radio are amazing for sure, and the field-expediant thinking and can-do attitudes are good for all involved in the hobby.

But there are some things better left to professionals. Anyone who doesn't think a lot of Ironworkers die doing what they do better than anyone else could, is just delusional. The bravado I've witnessed from so called antenna-tower experts far outweighs their knowledge of safety, strength of materials, rigging principles, or safe working aloft. Even the better ones at it are not properly qualified to train others, and so often enlist any brave soul they can find as riggers, connectors, ground support, etc

When a low quality gin pole breaks...[ picture ]

Radio amateurs are not riggers! You are old men who have no business up in the air. You belong ON THE AIR, not in it ;-) Paste those pictures of your rigging days upon the club walls and stop your friends from believing they can think these jobs out. They can't erect an antenna tower in certifying at 100% that they will never incur the least risk. One or another day you will have to discover a new principle, strength/weakeness, fault, improper manufacturing or material failure, improper tools, breakage of tools, physical exhaustion of a team member at a critical time, unexpected wind condition, improper response to a command or order at a winch, line, etc. And each time those things happen, your fingers, hands, feet and possibly life will be at risk. It comes with the understanding that all injuries happen between 0-10 meters (0-40 ft). After that, you're either dead, or wish death would release you from the disfiguring and crippling pain.You better get used to the fact that you can and will have injuries so bad from a 2-10 meter fall into or around steel that you will never be the same again, if you live.

All the blind leading the blind. I happen to know better than to work with untrained people at the effort of erecting antenna towers. I knew better when I erected steel as a professional and I still know better 20 years later. But some people's purpose in life is to serve as a warning to others. Don't let one of your friend's falling to his death make your club that purpose. Hire a professional company and take pictures from a safe distance."

Jack, Journeyman Ironworker.

Regularly ham magazines highlight similar accidents, sometimes involving a crane and a truck... So think twice to the risk you incur is doing such a job alone or with friends but without know-how.

## 957. Re: Tower Help 50 ft Rohn

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-20 19:53:09 UTC
From: Dave <noone@nowhere.com>
Message-ID: <D7-dnYj0s8qtX-vcRVn-gA@crocker.com>
Source record: 87952

"yoyo" <yoyo@yahoo.com> wrote in message
news:NZxdd.42845$_U4.14192@fe47.usenetserver.com...
> I have been given a 50 ft Rohn tower (galvanized).
>
> Problem is, I have to get it down. and I have a couple questions.
>
> Weight of each section?

depends on the type, anywhere from #25 to #75 for common ham sizes.

>
> estimate of a resonable charge to have someone do it for me? I don't
> like climbing
>

depends on condition, how much room there is to work and what is on it for
antennas if anything. i could drop it for $20 if you didn't care about the
condition, or you could pay a pro $1000 to remove it from a tight yard with
antennas on top.

> Is it worth paying 160 bucks to rent a 50 ft cherry picker to do it?
>

yes, if it comes with a qualified operator who knows how to handle a tower.
no, if its a drive it yourself and learn on the job rig.

my best suggestion is to ask hams locally who really knows how to do it
right and who has the right equipment.

# 958. Re: Printing wire list from EZNEC?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-20 19:58:43 UTC
From: Chuck <wa7rai@raibeam.com>
Message-ID: <ulzdd.8248$6P5.2587@okepread02>
Source record: 87951

Wes Stewart <n7ws_@_yahoo.com> wrote in message
news:j23bn0pst9satl80qs38t5e7vljsk2jdrn@4ax.com...
> On Mon, 11 Oct 2004 17:01:12 -0700, "Chuck" <wa7rai@raibeam.com>
> wrote:
>
> [snip]
> |
> |Regarding my claims; you cannot provide
> |one substantiated instance where my
> |antennas did not perform as stated. Where
> |are the complaints? Where are the
> |dissatisfied users. One would think after TEN
> |years there would have been some indication
> |of a fraud if one did exist.
> |
> |Or perhaps you simply imagine that all those
> |good folks who find my antenna design a
> |superior one, are merely deluded idiots, as
> |Brian Beasley once accused...
>
> One only look at the deluded victims and followers of the likes of
> Jerry Falwell, Jim Bakker, Jim Jones, the Nigerian finance minister,
> etc. to realize that hucksters never find a shortage of true
> believers.

Hi Wes,

While what you say may be true, it
proves nothing, in that performance is
observable and comparable, and does
not require blind faith to observe it.

> Let me show you how this works.
>
> I _personally_ guarantee you that my design for a 3-element 20-meter
> Yagi will out perform any Raibeam of the same boomlength and at the
> same height above ground. (I'll leave out the "electrical
> boomlength", whatever that means)
>
> Now it is up to *you* to prove this claim false.

Since you are making the claim, and
there exist untold numbers of Raibeam
antennas that have consistently beat
antennas of your design (a yagi is a yagi)

in pileups, etc., the onus would be on
you to prove your claim is valid.

Conversely, if there were thousands of
your 3-element 20-meter Yagis that have
beat out the Raibeam antennas in pileups,
and the Raibeam guy makes such a claim,
then it would be up to the Raibeam guy to
prove his claim was valid.

It is all a matter of what has been
established by many instances over
time.

>
> And like any good huckster, as "proof" of the superiority of my
> design, I offer these testimonials:
>
> With the antenna at a modest height of 50' above ground and fed with
> 250' of coax, in the recent ARRL Field Day contest Single-op N7WS was
> able to hold a frequency while running < 100 W (SSB) on emergency
> power. In only 17 hours of operation 1357 20-meter Q's were logged.
> All states and all ARRL sections were contacted.

Great... but a single case establishes
nothing.

>
> During the recent YV0D expedition, N7WS worked them not once, but
> twice on SSB (this pissed them off, but I'm tired of not being in the
> log when I know that I worked them), on the first call, and also
> worked them with ease on CW.
>
> http://dx.qsl.net/cgi-bin/logsearch.cgi?L=yv0d&C=n7ws
>
> Etc., etc....
>

It is a well know fact that Pat Murdoch,
ZL1AXB and I, both running 4 element
Raibeams @ 40 ft, held a daily sked
for close to four years, throughout the
bottom of the previous cycle on 10 meter
SSB, with power levels never exceeding
500 watts PEP. In only about 5% of the
total contacts were the sigs too weak to
hold the sked.

... the only signals on the band... :)

With that antenna, Pat won first place,
single op CW, in the ARRL 10 meter
contest both in 1996 and again in 1997 -

the only years he participated.

http://www.raibeam.com/page11.html

In the years he participated in the WPX
and CQWW contests, you will find Pat
listed in the top 10m positions as well.

Now, addressing your first assertion:
Pat can hardly be a deluded Raibeam
*cult* follower, since many of his
experiences are a matter of record.

And that does establish something.

73 de Chuck, WA7RAI

# 959. Re: Printing wire list from EZNEC?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-20 21:20:40 UTC
From: Wes Stewart <n7ws_@_yahoo.com>
Message-ID: <6kkdn0pfq5dgl90i3jd2l4a2q3ggep1p7p@4ax.com>
Source record: 87954

```
On Wed, 20 Oct 2004 12:58:43 -0700, "Chuck" <wa7rai@raibeam.com>
wrote:

|
|Wes Stewart <n7ws_@_yahoo.com> wrote in message
|news:j23bn0pst9satl80qs38t5e7vljsk2jdrn@4ax.com...
|> On Mon, 11 Oct 2004 17:01:12 -0700, "Chuck" <wa7rai@raibeam.com>
|> wrote:
|>
|> [snip]
|> |
|> |Regarding my claims; you cannot provide
|> |one substantiated instance where my
|> |antennas did not perform as stated. Where
|> |are the complaints? Where are the
|> |dissatisfied users. One would think after TEN
|> |years there would have been some indication
|> |of a fraud if one did exist.
|> |
|> |Or perhaps you simply imagine that all those
|> |good folks who find my antenna design a
|> |superior one, are merely deluded idiots, as
|> |Brian Beasley once accused...
|>
|> One only look at the deluded victims and followers of the likes of
|> Jerry Falwell, Jim Bakker, Jim Jones, the Nigerian finance minister,
|> etc. to realize that hucksters never find a shortage of true
|> believers.
|
|Hi Wes,
|
|While what you say may be true, it
|proves nothing, in that performance is
|observable and comparable, and does
|not require blind faith to observe it.
|
|> Let me show you how this works.
|>
|> I _personally_ guarantee you that my design for a 3-element 20-meter
|> Yagi will out perform any Raibeam of the same boomlength and at the
|> same height above ground. (I'll leave out the "electrical
|> boomlength", whatever that means)
|>
|> Now it is up to *you* to prove this claim false.
```

|
|Since you are making the claim, and
|there exist untold numbers of Raibeam
|antennas that have consistently beat
|antennas of your design (a yagi is a yagi)
|in pileups, etc., the onus would be on
|you to prove your claim is valid.

No. You have made unsubstantiated claims and *personally* guaranteed
performance. When I do *exactly* the same, you cry foul. I forgot to
mention that I sprinkled my antenna with floobydust, which makes it
superior to conventional Yagi designs.

|
|Conversely, if there were thousands of
|your 3-element 20-meter Yagis that have
|beat out the Raibeam antennas in pileups,
|and the Raibeam guy makes such a claim,
|then it would be up to the Raibeam guy to
|prove his claim was valid.

There are thousands of Yagis that beat Raibeams every day. This
proves nothing, just as does the converse.
|
|It is all a matter of what has been
|established by many instances over
|time.
|
|>
|> And like any good huckster, as "proof" of the superiority of my
|> design, I offer these testimonials:
|>
|> With the antenna at a modest height of 50' above ground and fed with
|> 250' of coax, in the recent ARRL Field Day contest Single-op N7WS was
|> able to hold a frequency while running < 100 W (SSB) on emergency
|> power. In only 17 hours of operation 1357 20-meter Q's were logged.
|> All states and all ARRL sections were contacted.
|
|Great... but a single case establishes
|nothing.

Gee, I offered a second case just below and I could go on and on. But
if this is meaningless, which it is, why do you publish such as this:

"...Your 20 meter, two element Raibeam is a firecracker..."

"...up about 33ft on the gable of the house and 70 watts, I can get
into the DXpeditions with no real problems...."

"... I can easily break the pileups barefoot, ..."

Blah, blah .....
|

|>
|> During the recent YV0D expedition, N7WS worked them not once, but
|> twice on SSB (this pissed them off, but I'm tired of not being in the
|> log when I know that I worked them), on the first call, and also
|> worked them with ease on CW.
|>
|> http://dx.qsl.net/cgi-bin/logsearch.cgi?L=yv0d&C=n7ws
|>
|> Etc., etc....
|>
|
|It is a well know fact that Pat Murdoch,
|ZL1AXB and I, both running 4 element
|Raibeams @ 40 ft, held a daily sked
|for close to four years, throughout the
|bottom of the previous cycle on 10 meter
|SSB, with power levels never exceeding
|500 watts PEP. In only about 5% of the
|total contacts were the sigs too weak to
|hold the sked.

It isn't a "well-known fact" I never heard of it before and I doubt
anyone else here has either. It proves absolutely nothing.

|
|... the only signals on the band... :)
|
|With that antenna, Pat won first place,
|single op CW, in the ARRL 10 meter
|contest both in 1996 and again in 1997 -
|the only years he participated.
|
|http://www.raibeam.com/page11.html
|
|In the years he participated in the WPX
|and CQWW contests, you will find Pat
|listed in the top 10m positions as well.
|
|Now, addressing your first assertion:
|Pat can hardly be a deluded Raibeam
|*cult* follower, since many of his
|experiences are a matter of record.
|
|And that does establish something.

Hardly.

# 960. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-20 21:38:07 UTC
From: k3bu@aol.comNoUsama
Message-ID: <20041020173807.24246.00002651@mb-m02.aol.com>
Source record: 87955

>I was relying on statements from Roy in the past where close spaced wires
>causes errors.

Roy outlined the limitations as far turns spacing for minimum error, but for the purpose of illustration, the HELIX menu is a big help in modeling or studying the effect of loading coils. In my original example I tried to obey the limitations and wanted to demonstrate that EZNEC can model real life coils and display the current distribution across them.

This is especially important when modeling parasitic beams with loaded elements.

73 Yuri

# 961. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-20 21:41:26 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <aYAdd.33038$QJ3.20467@newssvr21.news.prodigy.com>
Source record: 87956

Cecil Moore wrote:
> Tom Donaly wrote:
>
>> You and Richard need a refresher course in electromagnetics. I hope
>> Yuri doesn't fall into the same trap.
>
>
> As usual, zero technical content from you.
>
> Tom, here's a "circuit" for you.
>
> +--------------------------------+
> | |
> source Load
> | |
> +--------------------------------+
>
> The source is delivering 200 watts in the form of V=100V and
> I=2A in phase. The load is 4050 ohms. Using your circuit model,
> you assert that the current through the source is equal to the
> current through the load since it is a series circuit. Yet, if
> the current through the 4050 ohm resistor were actually 2.0A,
> the power to the load would be about 16,000 watts, thus violating
> the conservation of energy principle.
>
> Is there a current drop from the source to the load? Of course!
> Does this violate Kirchhoff's laws? Of course not!
>
> Why doesn't your circuit model work? Because the wires
> between the source and the load are 1/4WL of 450 ohm ladder-line
> thus rendering the circuit model invalid for the application.
>
> YOUR CIRCUIT ANALYSIS MODEL DOES *NOT* WORK ON DISTRIBUTED NETWORK
> PROBLEMS!!!
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>
> ----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet
> News==----
> http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000
> Newsgroups
> ---= East/West-Coast Server Farms - Total Privacy via Encryption =---

You still don't get it, Cecil, which is o.k. since I didn't expect you to. I don't doubt that Yuri can find a coil that exhibits a different current at one end than at the other; I have an antenna that exhibits the same behavior, and I made it that way on purpose. However, the term "current drop" as used by Yuri was wrong. There is no place for it in electromagnetic theory, and if you had known enough theory to understand that, you wouldn't have answered as you did.
73,
Tom Donaly, KA6RUH

# 962. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-20 21:46:20 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <M0Bdd.33041$QJ3.29829@newssvr21.news.prodigy.com>
Source record: 87957

Cecil Moore wrote:

> Tom Donaly wrote:
>
>> There are lots of ways to make inductors, (coils, transmission lines,
>> meander lines, etc.) but there is only one inductance.
>
>
> Have you ever seen the equivalent circuit of a transmission
> line presented with "only one inductance"?
>
>
> -----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet
> News==----
> http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000
> Newsgroups
> ---= East/West-Coast Server Farms - Total Privacy via Encryption =---

I don't hook equivalent circuits up to my antennas, Cecil, and I'm surprised that you do. Most of the transmission lines I've ever dealt with had one inductance which the theorists wouldn't think was as important as the inductance per unit length. Besides, you missed the point again.
73,
Tom Donaly, KA6RUH

# 963. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-20 21:55:44 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <A9Bdd.8227$6q2.4934@newssvr14.news.prodigy.com>
Source record: 87958

Richard Clark wrote:

> On Wed, 20 Oct 2004 04:49:52 GMT, "aunwin@insightbb.com"
> <aunwin@insightbb.com@insightbb.com> wrote:
>
>
>>Actually I modelled the coil to
>>real world dimensions
>>with a NEC program with copious segments that supplied current levels at
>>multiple points
>>around each turn to get my answers which this thread now suggests that NEC
>>answers could me incorrect
>>thus I am following the thread but not partaking in it.
>
>
> Hi Art,
>
> Read the thread where it is correctly described and stick with a
> winner. After all, the difference between the point inductor, and the
> helical one offers barely half a dB difference in the outcome. No one
> here could possibly measure that spread accurately (about the quarter
> of the width of an S-Meter's needle).
>
> 73's
> Richard Clark, KB7QHC

Hi Richard,
you've hit the nail squarely on the head. The validity of
the whole argument boils down to whether or not you can safely neglect
the effects of the physical dimensions of the inductor on the behavior
of the antenna. It looks to me as if you can, but some of the other
fellows on this newsgroup seem to be as much interested in
characterizing Tom Rauch as a rat as they are in verifying some
antenna effects due to the properties of real loading coils.
73,
Tom Donaly, KA6RUH

# 964. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-20 22:12:59 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10ndonc3lv4uf05@corp.supernews.com>
Source record: 87959

A good way to check the validity of an EZNEC helix model is to create the helix by itself, run a wire from one end of the helix to the other right through the middle of the helix, and put a source in the middle of the wire. Specify a low enough frequency that the helix will be small in terms of wavelength. I've found the source reactance to compare quite favorably with the reactance of the inductance calculated by Reg's program for the same physical dimensions. The self resonant frequency comes out quite close, also. The Q should be in the same ballpark, provided wire loss is included in the model, although radiation will lower it some in the EZNEC model. (The source resistance with wire loss set to zero is the radiation resistance. As long as it's much lower than the resistance with wire loss included, the effect of radiation will be small. If it's not much lower, reduce the frequency.) As I mentioned before, EZNEC doesn't model proximity effect (significant only when the turns are pretty closely spaced) but I don't think Reg's program includes proximity effect, either.

Roy Lewallen, W7EL

# 965. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-20 22:14:11 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <TqBdd.8232$6q2.7859@newssvr14.news.prodigy.com>
Source record: 87960

Richard Harrison wrote:

> Tom Donaly wrote:
> "You and Richard need a refresher course in electromagnetics."
>
> This Richard agrees a refresher course could help. I no longer read the
> Proceedings of the IRE for fun. It`s been over 50 years since I last
> darkened the halls of academia.
>
> I remember a few things. One hangup I see here is the rule that the
> current in a series circuit is always the same everywhere.
>
> True for circuits small in terms of wavelength. False for unmatched (not
> terminated in Zo) circuits of a size significant in terms of wavelength.
>
> The standing-wave antennas of this thread are less than 1/4 wavelength,
> but they`re still significant in terms of wavelength with or without
> loading coils. They are open-circuited and make a big reflection from
> their open-circuited ends. This reflection causes a current which varies
> from zero at the open-circuit end to something substantial back a ways
> from the open-circuit. Between substantial and zero is a current drop.
>
> My favorite author. F.E. Terman depicts this current distribution in a
> dipole (two 1/4-wave antennas back to back) in Fig. 23-2 on page 866 of
> his 1955 edition. For a whip worked against ground, the current
> distribution is either half of the dipole representation.
>
> Look at Fig.23-2. Anyone can see the current drops to zero at the
> antenna tips. Loading coils won`t change that. Coils added to bring
> total antenna inductance to resonance with its capacitance occupy space.
> Current through a loading coil takes time to traverse the coil. By the
> time current has made the trip through the coil, current arriving from
> the source is out of phase to some extent with that arriving through the
> coil. The delays in transit to both ends of the coil are likely not
> equal. The inequality in phase results in a difference in volts, amps,
> and impedance at the two coil ends.
>
> Recall, we are discussing r-f, traveling as a wave from both terminals
> of a generator. It is not d-c emerging from one battery terminal and
> entering another.
>
> Cecil is exactly correct in his characterization of how waves supeerpose
> to produce standing-wave variations in voltage, current, and impedance
> in the total series circuit.

>
> Proof has been offered by modeling, and measurement. You may accept or
> reject the observations of others. You could also make your own.
>
> Best regards, Richard Harrison, KB5WZI
>

Hi Richard,
current is the same everywhere in a series circuit only
when you can neglect the length of the components. Network theory is
supposed to be an abstraction that is close to being accurate only
at low frequencies and short dimensions. So, I agree with you. I
don't agree with the term "current drop" because, even in a transmission
line, current, or more properly, current density, doesn't act like a
potential of any sort to which you could ascribe a "drop."
You probably think this is nitpicking. I don't think it is, any more
than Yuri having a fit over how much the shape of the current is
changed in a short, inefficient antenna by a slight change in where
the current bends, ie whether it's at the beginning or end of the
loading coil.
73,
Tom Donaly, KA6RUH

## 966. Re: Gain per unit length of boom

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-20 22:20:46 UTC
From: Chuck <wa7rai@raibeam.com>
Message-ID: <XrBdd.8254$6P5.7645@okepread02>
Source record: 87961

aunwin@insightbb.com <aunwin@insightbb.com@insightbb.com> wrote in message
news:Wbidd.156718$He1.38391@attbi_s01...
>
> "Chuck" <wa7rai@raibeam.com> wrote in message
> news:n5gdd.8202$6P5.3752@okepread02...
> >
> > aunwin@insightbb.com <aunwin@insightbb.com@insightbb.com>
wrote in message
> > news:x_Ycd.281755$3l3.162866@attbi_s03...
> > > What brought this to my attention was Moxon who advocated 2
element
> beams
> > > (lightnes translates to greater heights) so I modeled a 20
meter beam on
> a 7
> > > foot
> > > boom and obtained 12dbi max for the band (ala< 2:1)
> >
> > Hi Art,
> >
> > Can we assume this gain was calculated
> > at a particular height over ground?
> But ofcourse a perfect ground and a standard wavelength height
>
> > Personally, I prefer FS results, in order to
> > eliminate any ambiguity.
> Field strength (F.S.) introduces ambiguity does it not?

Hi Art,

FS = free space :)

Modeling in FS, using dBd as a reference
eliminates ambiguity.

All grounds are not equal. Including ground
effects in antenna type models that are not
ground dependant, does not reflect the
'real' world, IMO.

> >
> > > but one can get 13dbi
> > > if you drop the impedance from 50 to 12 ohms.
>
> This paraphrases the spesific example that I gave
>

> the question would a transformer cancel the increased
> > > gain.
> Again you paraphased the spoecific sample that I gave
> which raised the same question I gave regarding transformer
losses
> >
> > Optimizing an antenna for a specific Z
> > is not a good idea in my opinion, as
> > the amplitude of an element's current is
> > proportional to the amplitude of its
> > radiation. Ohms law tells us that at a
> > consistent power level, the lower the R
> > (Z), the greater will be the current.
>
> Yes there are many laws to remember and I
> look at critical coupling as something to remember.

Critical coupling is simply a means to
attain element currents of a higher
amplitude than what can be expected
when one element is excited parasitically.

> >
> > A zero loss transformer would not
> > reduce the element's current, as the
> > energy being introduced to the element
> > would remain unchanged.
>
> Very true but what element would this max energy be applied to?

Max Energy?

I was referring to the element the transformer is
attached to.

> Via critical coupling the driven element may not be the one
carrying
> the maximum current and thus screws up conventional thinking.

Ummmm...

Critical coupling is a state where currents
of equal amplitude flow in two inductors that
are in close proximity, as a direct result of
the coupling. Critical coupling results in a
common field as well. This also applies to
wires (elements).

> Energy is one thing but it is current that controls radiation
is it not ?.

Yes, and that's what I had said previously.

> The particular model I was working on used 50 segments per
wavelength
> and used element length and diameters determined by my program
input .
> Thus coupling gains are attained but where it sometimes
determined a
> element diameter
> is so thin it is incapable of carrying the required current.

I'm not sure if I follow this correctly...
please elaborate further.

> If I saw a vendor advertise an antenna at 13dbi I would be very
suspicious
> as it not the norm,
> yet very realiseable when using NEC without being tied down to
existing
> doctrines.
> Soooooooo ..... I was looking for a datum curve generated by

(data - plural)... :)

experts from
> an all encompasing
> NEC program where the final design reflected the real world
design without
> ambiguities
> regarding coupling to coils, elements e.t.c. where lumped loads
do not
> reflect the real
> world appearance.
> There have been many responses including one suggestion that a
suitable
> datum curve could
> be formulated from customer claims no less but NONE that
responds to my
> specific request .
> Thus a conundrum still exists regarding programs based on
scientific
> knoweledge that are held in question
> as they do not match real world measurements that spawn most of
the
> villifying in this group.

I suspect there can be many examples
where this occurs, but not necessarily all
are the fault of software. However, we
both know from experience, software can
be problematic in this regard.

> Seems like a datum curve could be used as a basis for many
discusions where
> differences do occur

> instead of just arguing for eight years or more and not
resolving the
> accuracy concerns

... but when one fails to include certain
salient functions in their software - software
that is the basis for such arguments, there
is no way the arguments can be resolved
simply because there is no guarantee that
the software will be consistent with
empirical data in all cases, despite a high
order of hubris to the contrary.

> Seems like I have come full circle and describing the
Presidential debates !
> Art

Indeed... :)

73 de Chuck, WA7RAI

# 967. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-20 22:27:45 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <BDBdd.16648$nj.9576@newssvr13.news.prodigy.com>
Source record: 87962

Jim Kelley wrote:

> Tom Donaly wrote:
>
>> Next, Cecil, you're going to be talking about a "current gradient"
>> and a "scalar current field." Here's a question for you, Cecil, and
>> Richard Harrison, and Yuri, too: how do you take the gradient of
>> the current at a point on a transmission line, and, if were possible
>> to do so, what is the physical significance of the result?
>> 73,
>> Tom Donaly, KA6RUH
>
>
> The standing wave current profile along, for example, a quarter wave
> radiator is a cosine function. The gradient then would be the
> derivative of the cosine function which is a -sine function.
>
> 73, ac6xg
>

Jim,
current, in a wire, is the total current density integrated across
a cross section of the wire. It's a vector, as is the current density.
Now tell me, how do you take the gradient of a vector? David K. Cheng,
in his book Field and Wave Electromagnetics, defines the gradient
operation this way: "We define the vector that represents both the
magnitude and the direction of the maximum space rate of increase
of a scalar as the gradient of that scalar." He wrote "scalar,"
not "vector," Jim. You and the rest of the boys are acting as if
current had magnitude but no direction, whereas it has both.
73,
Tom Donaly, KA6RUH

## 968. Re: Tower Help 50 ft Rohn

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-20 22:28:20 UTC
From: Ralph Mowery <rmowery28146@earthlink.net>
Message-ID: <8EBdd.4008$ta5.3658@newsread3.news.atl.earthlink.net>
Source record: 87963

> I have been given a 50 ft Rohn tower (galvanized).
>
> Problem is, I have to get it down. and I have a couple questions.
>
> Weight of each section?
>
> estimate of a resonable charge to have someone do it for me? I don't
> like climbing
>
> Is it worth paying 160 bucks to rent a 50 ft cherry picker to do it?

The catalog lists the 25G (most common type for hams) at 26 pounds per section. Look here for some info on the towers and what Rohn recommends as to putting one up.

http://www.rohnnet.com/ROHNNET/rohnnet2004/html2004/index.html

Think I payed about $ 40 per section for some good looking ones that were on the ground. Make sure there is a way to jack the sections apart and the bolts may be rusted , especially if the Rohn bolts were not used.

# 969. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-20 22:29:12 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <YEBdd.16650$nj.16532@newssvr13.news.prodigy.com>
Source record: 87964

Cecil Moore wrote:

> Jim Kelley wrote:
>
>> The standing wave current profile along, for example, a quarter wave
>> radiator is a cosine function. The gradient then would be the
>> derivative of the cosine function which is a -sine function.
>
>
> Yep, the feedpoint is at a current loop (max). The open end of the quarter
> wave radiator is obviously at a current node (min). There are electrically
> 90 degrees of signal between the current loop and the current node on a
> standing-wave antenna or on a transmission line with standing waves.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>
> -----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet
> News==----
> http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000
> Newsgroups
> ---= East/West-Coast Server Farms - Total Privacy via Encryption =---

You're both wrong for reasons I've given in another post.
73,
Tom Donaly, KA6RUH

## 970. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-20 22:54:27 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <cl6qej$a9t$1@news.service.uci.edu>
Source record: 87965

Tom Donaly wrote:

> Jim Kelley wrote:
>
>> Tom Donaly wrote:
>>
>>> Next, Cecil, you're going to be talking about a "current gradient"
>>> and a "scalar current field." Here's a question for you, Cecil, and
>>> Richard Harrison, and Yuri, too: how do you take the gradient of
>>> the current at a point on a transmission line, and, if were possible
>>> to do so, what is the physical significance of the result?
>>> 73,
>>> Tom Donaly, KA6RUH
>>
>>
>>
>> The standing wave current profile along, for example, a quarter wave
>> radiator is a cosine function. The gradient then would be the
>> derivative of the cosine function which is a -sine function.
>>
>> 73, ac6xg
>>
>
> Jim,
> current, in a wire, is the total current density integrated across
> a cross section of the wire. It's a vector, as is the current density.
> Now tell me, how do you take the gradient of a vector? David K. Cheng,
> in his book Field and Wave Electromagnetics, defines the gradient
> operation this way: "We define the vector that represents both the
> magnitude and the direction of the maximum space rate of increase
> of a scalar as the gradient of that scalar." He wrote "scalar,"
> not "vector," Jim. You and the rest of the boys are acting as if
> current had magnitude but no direction, whereas it has both.
> 73,
> Tom Donaly, KA6RUH

Not sure why you don't like gradients, Tom. I'm sure Mr. Cheng is
undoubtedly correct, but I'm just as sure he didn't intend that sentence
as any sort of definition of the term "gradient". That's something you
have apparently read into it. The gradient in our case (since you
proposed the question) would be expressed as the superposition of
forward and reverse currents, with magnitude and phase (or direction if
you prefer) written as a function of either position or angle *along*
the radiator. It's nothing fancy. Honest. It's simply the rate of
change of current as a function of position. The gradient across the

radiator at any given point along the radiator could then be determined using some additional parameters - if someone were really that interested in it (which I'm not).

73, ac6xg

# 971. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-20 23:10:53 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0410201510.1c237e1c@posting.google.com>
Source record: 87966

k3bu@aol.comNoUsama (Yuri Blanarovich) wrote in message
news:<20041016165910.16808.00001863@mb-m11.aol.com>...
> Howdy Antenna NGers,
>
> I took the time to check out the Helix feature in EZNEC 4.08 and modeled the
> "worst" case - CB whip or 10 m whip with loading coil - helix half way up and
> then the same helix moved up to 3/4 way up. Things will get more pronounced
> when more turn, more inductance coil is used and frequencies are lower. Yes,
> Virginia there is a CURRENT DROP across the loading coil, unless you have more
> "appropriate" or "scientwific" term for it.

Who is Virginia? I've never seen her here. Is she posting under an
assumed name?
>

> which corresponds to REALITY measured, experienced and finally properly (close
> enough) modeled. Even M0RON (with apologies if there is call like that issued
> :-) can see the nice current drop across the coil displayed in the VIEW.

But does it change the *end* results to any large degree? I really
doubt it.
>
> Thank you Roy (now you believe it?), Cecil, Richard. Now the unbelievers can
> even model this case themselves and SEE it properly. So ON4UN, K3BU, W9UCW,
> W5DXP, KB5WZI were and are right. W8JI, G3SEK et al are sooooo wrong :-) Some
> still persist, some are converted and many will be enlightened.

Some of us could care less. I know that applies to me. I know that the
end results of the modeled antenna won't change to any degree worth
worrying about.
The recommended coil placement positions are not going to change
either.

>
> Now if Roy can incorporate elegant way of modeling real life coil/inductance by
> inputing Inductance L and its physical size and have it calculate things
> without modeling turns, that would be a winner and a segment saver.

I don't see the point, if the end result of the modeled antenna is
accurate. And it is, as far as I've seen so far.
>
> So after all, those "dumb" hams pointed out 50 years of misinformation in even
> ARRL "bibles" like Antenna and Handbooks :-(yep, latest 2005 "revision" still
> has it in it)

Uhhh, I hate to break it to you, but the antenna handbook has *both*
descriptions within it's covers. One says the current taper is fairly
constant, and one says it can vary.
>
> Just watch W8JI to massage his web page and twist out of this one (yet another
> egg in the face :-)

Who cares what he does or thinks....
You take this stuff too personal I think. Also, you have a tendency to
be overally smartass with some of your descriptions of people, or the
way they think, or the theories they support. Or the names you make up
to call them. IE: You once called *me* Virginia... You can inspect me,
and if you find a female apparatus "taco shaped", or big tits, I'll
give you $1000. You would get much more respect as far as this coil
current taper theory, if you weren't such a frigging smartass about
it. Just state the facts, or what you observe, and leave the horsecrap
and childish names out. Just my opinion. MK

## 972. Re: Is lighting nuts?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-20 23:15:48 UTC
From: Bob <BobsJunkMail@bellsouth.net>
Message-ID: <xiCdd.87335$yp.60617@bignews1.bellsouth.net>
Source record: 87967

These guys http://www.harger.com/ are the big boys in the lightning protection business... Get this http://www.harger.com/equipcat.htm it will answer alot of questions.
Also, see www.polyphaser.com
I have towers at work that the tower crews say the air terminal is kept shiny from so many hits.

N2QEW

## 973. HELP with 220 KLM antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-20 23:25:44 UTC
From: wb4una@aol.com
Message-ID: <20041020192544.19078.00002894@mb-m29.aol.com>
Source record: 87968

I have a KLM 220 antenna 14 elements and I need a manual for it..anyone can help me out please let me know....

Thansk Randy

ARS: WB4UNA
Randy Chavis
247 Goff Court
West Columbia
S.C. 29172

## 974. Re: cleaning antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 00:15:29 UTC
From: mike beauchamp <mbeauchamp@cogeco.ca>
Message-ID: <ycDdd.2632$0v6.2203@read1.cgocable.net>
Source record: 87969

try a tube of flitz metal polish and you dont need that much
just squeeze some from the tube to your hand about the size of a pl-259

then just rub it all over the aluminum with the palm of your hand and use
a light force but a strong enough one to make some friction ,
and you will notice the aluminum turns black.
this is good
then while the polish (black ) is still moist wipe off with a soft cloth
like a old bath toel and the more you rub the brighter it becomes and keep
rubbing till all oxidization is off of the antenna .
and then wait like 15 mins and buff it up again and youd be suprised at
how much more oxidization the buffing towel /rag is still taking off and
buff to your desired shine.
ps. you can also use easy off on you aluminum to remove heavy oxidization
but be quick to wipe wash it off, because it will eat your elements ... but
if your quick it works great...
I also shine boots, brass artillery shells and if it aint shiny It aint
worth keeping....
FLITZ can be bought in 5 lb cans.. and its great...
mike beauchamp ve3-tya
"Tom Ring" <news0000@taring.org> wrote in message
news:416b362b$0$91007$39cecf19@news.twtelecom.net...
> CW wrote:
> > Try Mother's Mag and Aluminum polish. When I was in basic training,
there
> > was a guy that brought a can of Mother's with him. His stuff looked so
much
> > better than the rest (everyone else was using Brasso) that they told him
he
> > couldn't use it unless he supplied it to everyone. Yes, it's that good.
> > >
>
> Thanks, I'll give it a try.
>
> tom
> K0TAR

## 975. Re: Is lighting nuts?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 00:42:16 UTC
From: richardharrison@webtv.net
Message-ID: <12236-417705E8-224@storefull-3255.bay.webtv.net>
Source record: 87872

Gary Deutschmann wrote:
"If you recall, I lost a tower to a lightning strike."

Yes. I was saddened by Gary`s misfortune.. My recollection of the event is that the tower was aluminum. It seems there may have been a poor electrical connection between tower sections which generated first great heat. There was a lightning induced failure of one of the tower legs, if I remember.

The commercial towers erected by one of the companies I worked for, all had a copper cable about like a welding or jumper cable riunning the length of the tower, connecting the top plate to the ground system for the tower. Deep ground rods were connected to each tower leg.

I encountered these towers upon joining the company. I would not have so specified those tower-length cables in those big steel towers, but it must have worked as we never had any lightning damage to the towers. In Gary`s case, such a cable might have prevented a melt-down.

Best regards, Richard Harrison, KB5WZI

## 976. Re: 60 meter dipoles

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 00:49:56 UTC
From: w9gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <UIDdd.400933$mD.296083@attbi_s02>
Source record: 87970

"jwb" <j.beltz@insightbb.com> wrote in message
news:N05dd.275746$D%.136492@attbi_s51...
> are there any good plans out there for the new band?
> thanks jack
Unadilla is now offering 60 meter traps for multi-band trap dipole
configurations. The band is limited to power anyway -- so little change of
harming a trap at maximum power levels.
http://www.unadilla.com

w9gb

## 977. Re: Gain per unit length of boom

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 00:53:27 UTC
From: "aunwin@insightbb.com"
Message-ID: <bMDdd.293802$3l3.275124@attbi_s03>
Source record: 87871

Chuck
"Chuck" <wa7rai@raibeam.com> wrote in message
news:XrBdd.8254$6P5.7645@okepread02...
snip.
> >
> > Yes there are many laws to remember and I
> > look at critical coupling as something to remember.
>
> Critical coupling is simply a means to
> attain element currents of a higher
> amplitude than what can be expected
> when one element is excited parasitically.
>
> > >
> > > A zero loss transformer would not
> > > reduce the element's current, as the
> > > energy being introduced to the element
> > > would remain unchanged.
> >
> > Very true but what element would this max energy be applied to?
>
> Max Energy?

Sorry about that.....I.meant current but my fingers ignored me

>
> I was referring to the element the transformer is
> attached to.
>
> > Via critical coupling the driven element may not be the one
> carrying
> > the maximum current and thus screws up conventional thinking.
>
> Ummmm...
>
> Critical coupling is a state where currents
> of equal amplitude flow in two inductors that
> are in close proximity, as a direct result of
> the coupling. Critical coupling results in a
> common field as well. This also applies to
> wires (elements).
>
> > Energy is one thing but it is current that controls radiation
> is it not ?.
>

> Yes, and that's what I had said previously.
>
> > The particular model I was working on used 50 segments per
> wavelength
> > and used element length and diameters determined by my program
> input .
> > Thus coupling gains are attained but where it sometimes
> determined a
> > element diameter
> > is so thin it is incapable of carrying the required current.
>
> I'm not sure if I follow this correctly...
> please elaborate further.
>

Certainly
To attain maximum gain per unit length the model dimensions
were all variables as was the number of elements. Not only
was the driven element current often less than another element in the array
it was sometimes found that the maximum current element required a diameter
of a few thousanths that was not sufficient to carry 1Kw.!
Obviously the gain attained was over ruled by the inability of the element
to meet operational requirements.
I might add that I use fibre fishing rods for my antennas where I can apply
the correct
wire diameters ( or aluminum foil) to an array without being encumbered by
mechanical restrictions.
This removes me from the normal restrictions applied to antennas where
element diameter
is pre-controlled for mechanical reasons which often conflict with
scientific requirements
The above statement does conflicts with your assesment stated above
regarding critical coupling
but this is what I found and I will leave it at that
Regards
Art.

snip

# 978. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 00:57:10 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <qn1en0ti0605an8cp7s80kbm553808hpju@4ax.com>
Source record: 87873

On Wed, 20 Oct 2004 12:17:28 -0500, richardharrison@webtv.net (Richard Harrison) wrote:
>violating Kirchoff`s law the same way

Hi Richard,

There is no such Kirchoff law of two separate points of current, that is Kirchoff's voltage law. A point (singular, the only component of Kirchhoff's current law) has no dimension, any departure from this necessarily excludes itself from strict Kirchhoffian analysis.

73's
Richard Clark, KB7QHC

# 979. Re: HELP with 220 KLM antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 01:00:42 UTC
From: w9gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <_SDdd.400980$mD.54582@attbi_s02>
Source record: 87874

"Randy Chavis" <wb4una@aol.com> wrote in message
news:20041020192544.19078.00002894@mb-m29.aol.com...
> I have a KLM 220 antenna 14 elements and I need a manual for it..anyone
> can
> help me out please let me know....
>
> Thansk Randy
>
> ARS: WB4UNA
> Randy Chavis
> 247 Goff Court
> West Columbia
> S.C. 29172
>

M2 does currently make a 14 element 222 MHz antenna, however you can contact them to see if they have the manual still on file.

This is the statement that M2 posts, regarding support for KLM antenna products:

We here at M2 have decided to support the users from the now defunct KLM as best we can.
Basic Technical Questions regarding M2 products can be sent to one of the following:
Wyatt - M2 Tech Support
Matt - M2 Tech Support

If you have multiple questions regarding complete systems, including: H frames, masts, and tower information, please contact us by phone, this will save all of us valuable time.

Hours of Operation: 7:30am - 4pm PST M-F
By phone: 559.432.8873
By fax: 559.432.3059
By mail:

M2 Antenna Systems
4402 N Selland
Fresno, CA 93722

# 980. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 01:01:00 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cl71oc$g4f$1@sparta.btinternet.com>
Source record: 87875

> EZNEC doesn't model proximity effect (significant only when the
> turns are pretty closely spaced) but I don't think Reg's program
> includes proximity effect, either.
>
> Roy Lewallen, W7EL

==========

Yes it does!

But you can forget it. It doesn't matter except when calculating efficiency.
It has no affect on how the thing works which is what you are all
so-aggressively fighting about. You'll soon be using assault weapons.

Program "Loadcoil" also includes the ALL-IMPORTANT COIL CAPACITANCE (which I
suspect Eznec does not - I never use it) - the existence of which the
whole set of you block-heads, so-called electrical engineers, appear to be
entirely ignorant.

We ARE dealing with alternating currents.

Oh Boy - I enjoyed typing that! ;o)
---
Reg, G4FGQ

# 981. Re: Tower Help 50 ft Rohn

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 01:15:36 UTC
From: kelly@dvol.com
Message-ID: <d22b54c3.0410201715.75bc6048@posting.google.com>
Source record: 87876

yoyo <yoyo@yahoo.com> wrote in message
news:<NZxdd.42845$_U4.14192@fe47.usenetserver.com>...
> I have been given a 50 ft Rohn tower (galvanized).
>
> Problem is, I have to get it down. and I have a couple questions.
>
> Weight of each section?

Depends on which type Rohn tower sections are used. Hams generally use
25G or 45G and occasionally 55G.

http://www.rohnnet.com/ROHNNET/rohnnet2004/html2004/index.html

http://www.antennasystems.com/towers.html#ROHN%2025G

> estimate of a resonable charge to have someone do it for me?

$50/hr. for a semi-pro (part-timer) with a gin pole, the tools and the
experience to do it right safely.

> I don't
> like climbing

Neither does anybody else!

> Is it worth paying 160 bucks to rent a 50 ft cherry picker to do it?

I wouldn't want to take a tower apart from a bucket, it would be very
awkward at best and possibly dangerous.

If I were in your position I'd get in touch with a ham in your area
who knows his way around towers and get him involved.

> Thanks
>
> Jonathan
> KB8PFA

w3rv

## 982. Re: WiMAX 802.16a specification

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 01:28:27 UTC
From: Beth McBob <BobbyLove_NotReally_@HotMail.com>
Message-ID: <_gEdd.2547$Es6.5280875@news.sisna.com>
Source record: 87878

"Richard Clark"
> Practical cell sizes usually have a small radius
> of around 5 miles or less.

www.google.com/search?q=Wi-max+miles
www.google.com/search?q=%2B802.16a+miles

Getting a lot of hits for "30" miles.

This doesn't contradict your quote, just expands upon it.

For a house in the woods with a suitable high gain antenna, the max range
could tend towards the extreme distances. For IP to cars, less.

# 983. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 01:29:56 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <tp3en05rgt7spku8afmj81uvf7oi9id7d5@4ax.com>
Source record: 87877

On 19 Oct 2004 14:37:27 -0700, thom1327@umn.edu (horde52) wrote:

>For a mid-UHF fractal antenna, what kind of power can be used to
>transmit, 100 watts, 1000 watts, 10,000 watts...?

To All who endured the string of non-answers, Greetings!

I cannot say that I could add anything substantial towards resolving your issues, however, the tenor of your questions leads me to believe you would appreciate some fundamentals on the topic. Visit: http://www.qsl.net/kb7qhc/antenna/fractal/index.htm

I would warn you, if you do not have a high speed connection, some pages may take a while to download (also considering a slow server at times). The various links that you will find at this page constitute the single greatest exposure of the topic on the web (the commercial outfits are pedestrians along the freeway of information). There are more than 300 pages. illustrations (supported by pages of their higher resolution graphics) and technical details.

Be forewarned there is nothing about construction details. Their mere appearance should yield the reason why.

73's
Richard Clark, KB7QHC

# 984. Re: HELP with 220 KLM antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 01:46:09 UTC
From: w9gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <AxEdd.293973$3l3.207065@attbi_s03>
Source record: 87879

"Randy Chavis" <wb4una@aol.com> wrote in message
news:20041020192544.19078.00002894@mb-m29.aol.com...
> I have a KLM 220 antenna 14 elements and I need a manual for it..anyone
> can
> help me out please let me know....
>
> Thansk Randy
>
> ARS: WB4UNA
> Randy Chavis
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M2 Antenna Systems
4402 N Selland
Fresno, CA 93722

## 985. Re: Tower Help 50 ft Rohn

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 01:53:51 UTC
From: yoyo <yoyo@yahoo.com>
Message-ID: <MEEdd.47403$xW2.34813@fe45.usenetserver.com>
Source record: 87880

Brian Kelly wrote:
> yoyo <yoyo@yahoo.com> wrote in message
news:<NZxdd.42845$_U4.14192@fe47.usenetserver.com>...
>
>>I have been given a 50 ft Rohn tower (galvanized).
>>
>>Problem is, I have to get it down. and I have a couple questions.
>>
>>Weight of each section?
>
>
> Depends on which type Rohn tower sections are used. Hams generally use
> 25G or 45G and occasionally 55G.
>
> http://www.rohnnet.com/ROHNNET/rohnnet2004/html2004/index.html
>
> http://www.antennasystems.com/towers.html#ROHN%2025G
>
>
>>estimate of a resonable charge to have someone do it for me?
>
>
> $50/hr. for a semi-pro (part-timer) with a gin pole, the tools and the
> experience to do it right safely.
>
>
>>I don't
>>like climbing
>
>
> Neither does anybody else!
>
>
>>Is it worth paying 160 bucks to rent a 50 ft cherry picker to do it?
>
>
> I wouldn't want to take a tower apart from a bucket, it would be very
> awkward at best and possibly dangerous.
>
> If I were in your position I'd get in touch with a ham in your area
> who knows his way around towers and get him involved.
>
>
>>Thanks

>>
>>Jonathan
>>KB8PFA
>
>
> w3rv

I'm not exactly sure of the type 25 45 etc. Originally it was a 60 ft dispatch tower for a towing service. They moved it once and it became a 50 ft. both applications the tower was bracketet to a building about 25 ft up. Is there a way to determine the tower type?

I thougt it would be relatively easy to do this from a bucket.. Come along side, unbolt it. then go above and lower it with a rope?

Jon

# 986. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 01:56:27 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10ne5qc1h01jt9d@corp.supernews.com>
Source record: 87882

Thanks for the correction regarding proximity effect. In that case,
Reg's program should report the loss more accurately than EZNEC when the
turns are very closely spaced.

Yes, indeed, EZNEC does account for the capacitance -- it comes about
from the coupling of fields between turns, which is at the heart of the
fundamental NEC-2 electromagnetic field calculations. As I said, the
self-resonant frequency reported by EZNEC is pretty close to that
calculated by your program.

Roy Lewallen, W7EL

Reg Edwards wrote:
>>EZNEC doesn't model proximity effect (significant only when the
>>turns are pretty closely spaced) but I don't think Reg's program
>>includes proximity effect, either.
>>
>>Roy Lewallen, W7EL
>
>
> ====================================
>
> Yes it does!
>
> But you can forget it. It doesn't matter except when calculating efficiency.
> It has no affect on how the thing works which is what you are all
> so-aggressively fighting about. You'll soon be using assault weapons.
>
> Program "Loadcoil" also includes the ALL-IMPORTANT COIL CAPACITANCE (which I
> suspect Eznec does not - I never use it) - the existence of which the
> whole set of you block-heads, so-called electrical engineers, appear to be
> entirely ignorant.
>
> We ARE dealing with alternating currents.
>
> Oh Boy - I enjoyed typing that! ;o)
> ----
> Reg, G4FGQ
>
>

## 987. Re: Tower Help 50 ft Rohn

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 01:56:48 UTC
From: yoyo <yoyo@yahoo.com>
Message-ID: <xHEdd.47416$xW2.30578@fe45.usenetserver.com>
Source record: 87881

yoyo wrote:

> Brian Kelly wrote:
>
>> yoyo <yoyo@yahoo.com> wrote in message
>> news:<NZxdd.42845$_U4.14192@fe47.usenetserver.com>...
>>
>>> I have been given a 50 ft Rohn tower (galvanized).
>>>
>>> Problem is, I have to get it down. and I have a couple questions.
>>>
>>> Weight of each section?
>>
>>
>>
>> Depends on which type Rohn tower sections are used. Hams generally use
>> 25G or 45G and occasionally 55G.
>>
>> http://www.rohnnet.com/ROHNNET/rohnnet2004/html2004/index.html
>>
>> http://www.antennasystems.com/towers.html#ROHN%2025G
>>
>>
>>> estimate of a resonable charge to have someone do it for me?
>>
>>
>>
>> $50/hr. for a semi-pro (part-timer) with a gin pole, the tools and the
>> experience to do it right safely.
>>
>>
>>> I don't like climbing
>>
>>
>>
>> Neither does anybody else!
>>
>>> Is it worth paying 160 bucks to rent a 50 ft cherry picker to do it?
>>
>>
>>
>> I wouldn't want to take a tower apart from a bucket, it would be very
>> awkward at best and possibly dangerous.
>>

>> If I were in your position I'd get in touch with a ham in your area
>> who knows his way around towers and get him involved.
>>
>>
>>> Thanks
>>>
>>> Jonathan
>>> KB8PFA
>>
>>
>>
>> w3rv
>
>
> I'm not exactly sure of the type 25 45 etc. Originally it was a 60 ft
> dispatch tower for a towing service. They moved it once and it became a
> 50 ft. both applications the tower was bracketet to a building about 25
> ft up. Is there a way to determine the tower type?
>
> I thougt it would be relatively easy to do this from a bucket.. Come
> along side, unbolt it. then go above and lower it with a rope?
>
> Jon
>

If anyone here is interested in job I'm in Macomb County MI and the
tower is local!!!!

## 988. Re: Fractenna lashes out at hams using BPL

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 01:57:04 UTC
From: Tom Ring <news0000@taring.org>
Message-ID: <41771773$0$91011$39cecf19@news.twtelecom.net>
Source record: 87883

Richard Clark wrote:

> Today we get candy-asses like Buchasneer and Limabean who couldn't
> fight a swish with his limp wrists tied behind his back. :-)
>
> 73's
> Richard Clark, KB7QHC

I would suggest you stick to what you are expert at, nitpicking EM,
rather than what you aren't good at, which is attempting to be being cute.

tom K0TAR

## 989. Re: Printing wire list from EZNEC?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 02:44:12 UTC
From: Chuck <wa7rai@raibeam.com>
Message-ID: <DgFdd.8266$6P5.7511@okepread02>
Source record: 87884

```
Wes Stewart <n7ws_@_yahoo.com> wrote in message
news:6kkdn0pfq5dgl90i3jd2l4a2q3ggep1p7p@4ax.com...
> On Wed, 20 Oct 2004 12:58:43 -0700, "Chuck" <wa7rai@raibeam.com>
> wrote:
>
> |
> |Wes Stewart <n7ws_@_yahoo.com> wrote in message
> |news:j23bn0pst9satl80qs38t5e7vljsk2jdrn@4ax.com...
> |> On Mon, 11 Oct 2004 17:01:12 -0700, "Chuck" <wa7rai@raibeam.com>
> |> wrote:
> |>
> |> [snip]
> |> |
> |> |Regarding my claims; you cannot provide
> |> |one substantiated instance where my
> |> |antennas did not perform as stated. Where
> |> |are the complaints? Where are the
> |> |dissatisfied users. One would think after TEN
> |> |years there would have been some indication
> |> |of a fraud if one did exist.
> |> |
> |> |Or perhaps you simply imagine that all those
> |> |good folks who find my antenna design a
> |> |superior one, are merely deluded idiots, as
> |> |Brian Beasley once accused...
> |>
> |> One only look at the deluded victims and followers of the likes of
> |> Jerry Falwell, Jim Bakker, Jim Jones, the Nigerian finance minister,
> |> etc. to realize that hucksters never find a shortage of true
> |> believers.
> |
> |Hi Wes,
> |
> |While what you say may be true, it
> |proves nothing, in that performance is
> |observable and comparable, and does
> |not require blind faith to observe it.
> |
> |> Let me show you how this works.
> |>
> |> I _personally_ guarantee you that my design for a 3-element 20-meter
> |> Yagi will out perform any Raibeam of the same boomlength and at the
> |> same height above ground. (I'll leave out the "electrical
> |> boomlength", whatever that means)
```

> |>
> |> Now it is up to *you* to prove this claim false.
> |
> |Since you are making the claim, and
> |there exist untold numbers of Raibeam
> |antennas that have consistently beat
> |antennas of your design (a yagi is a yagi)
> |in pileups, etc., the onus would be on
> |you to prove your claim is valid.
>
> No. You have made unsubstantiated claims and *personally* guaranteed
> performance. When I do *exactly* the same, you cry foul. I forgot to
> mention that I sprinkled my antenna with floobydust, which makes it
> superior to conventional Yagi designs.

Hi Wes,

Unsubstantiated in your mind perhaps...
but there are many with first hand
experience ITR who would strongly
disagree with that baseless opinion.
Baseless, in that it lacks first-hand
experience to give it substance.

BTW, That was a money-back
guarantee, and in 8 years, the only
refund requested and issued, was
because the poor guy's wife had a
cow over the idea of a beam above
the house. Apparently he failed to
inform her of his plans...

>
> |
> |Conversely, if there were thousands of
> |your 3-element 20-meter Yagis that have
> |beat out the Raibeam antennas in pileups,
> |and the Raibeam guy makes such a claim,
> |then it would be up to the Raibeam guy to
> |prove his claim was valid.
>
> There are thousands of Yagis that beat Raibeams every day. This
> proves nothing, just as does the converse.

Perhaps you should argue this with
Dr. Ken Asmus, VA3KA , a scientist who
conducted a shoot-out in Canada...

"The Raibeam RB-36x was installed late fall last year (October '00). For the next few weeks I used the Raibeam heavily and was extremely pleased with it's performance. In nearly every comparison with my A4 it was equal or stronger in signal strength. In many QSO's, both long medium and short range, and on all 3 bands, the RB-36x was 1-2 S units

stronger. This was both surprising and pleasing considering the RB-36x is about 15 feet lower than the A4. Using the Raibeam I was able to work ALL the major DXpeditions in the last year (on 20-15-10 meters SSB/CW and RTTY) and was the top Canadian in the 2001 ARRL DX contest (SSB) 10M single band with 1400 QSO's."

You can see a photograph of the two
towers and beams at:

http://www.raibeam.com/page23.html

The RB-36x has 2 elements for each band,
interlaced on a 14 foot boom, and weighs
only 36 pounds.

> |
> |It is all a matter of what has been
> |established by many instances over
> |time.
> |
> |>
> |> And like any good huckster, as "proof" of the superiority of my
> |> design, I offer these testimonials:
> |>
> |> With the antenna at a modest height of 50' above ground and fed with
> |> 250' of coax, in the recent ARRL Field Day contest Single-op N7WS was
> |> able to hold a frequency while running < 100 W (SSB) on emergency
> |> power. In only 17 hours of operation 1357 20-meter Q's were logged.
> |> All states and all ARRL sections were contacted.
> |
> |Great... but a single case establishes
> |nothing.
>
> Gee, I offered a second case just below and I could go on and on. But
> if this is meaningless, which it is,

I see we agree on something... :)

> why do you publish such as this:
>
> "...Your 20 meter, two element Raibeam is a firecracker..."
>
> "...up about 33ft on the gable of the house and 70 watts, I can get
> into the DXpeditions with no real problems...."
>
> "... I can easily break the pileups barefoot, ..."
>

I simply published the unsolicited opinions
of others - opinions based on their first-
hand experiences that they wished to
share with others.

Since most gave email addresses, please
feel free to contact those opinionators,
and perhaps you can convince them they
are all delusional, having been brainwashed
by an evil antenna cult leader... <g>

> |
> |>
> |> During the recent YV0D expedition, N7WS worked them not once, but
> |> twice on SSB (this pissed them off, but I'm tired of not being in the
> |> log when I know that I worked them), on the first call, and also
> |> worked them with ease on CW.
> |>
> |> http://dx.qsl.net/cgi-bin/logsearch.cgi?L=yv0d&C=n7ws
> |>
> |> Etc., etc....
> |>
> |
> |It is a well know fact that Pat Murdoch,
> |ZL1AXB and I, both running 4 element
> |Raibeams @ 40 ft, held a daily sked
> |for close to four years, throughout the
> |bottom of the previous cycle on 10 meter
> |SSB, with power levels never exceeding
> |500 watts PEP. In only about 5% of the
> |total contacts were the sigs too weak to
> |hold the sked.
>
> It isn't a "well-known fact" I never heard of it before and I doubt
> anyone else here has either. It proves absolutely nothing.

It proves your fixed opinions are stronger
than your curiosity!

Tell you what: Steve, ZL1SB is Pat's
neighbor and longtime friend, His email
addy is on my website. Contact him if
you'd like to have your mind opened.

Or perhaps you would like to discuss this
with Rod, ZL2ACE who has done
considerable independent testing of this
antenna design and is knowledge of the
10m skeds. rodg@clear.net.nz

> |
> |... the only signals on the band... :)
> |
> |With that antenna, Pat won first place,
> |single op CW, in the ARRL 10 meter
> |contest both in 1996 and again in 1997 -
> |the only years he participated.
> |

> | http://www.raibeam.com/page11.html
> |
> |In the years he participated in the WPX
> |and CQWW contests, you will find Pat
> |listed in the top 10m positions as well.
> |
> |Now, addressing your first assertion:
> |Pat can hardly be a deluded Raibeam
> |*cult* follower, since many of his
> |experiences are a matter of record.
> |
> |And that does establish something.
>
> Hardly.

It seems inconsistent that you repeatedly
cry "unsubstantiated" then refuse to
consider substance. Though I suppose
if you bothered to check out the contest
records, it may raise havoc with your
unsubstantiated opinions, perhaps?... hi

73 de Chuck, WA7RAI

# 990. Re: The Best of All Worlds???

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 03:04:09 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <EEFdd.87404$yp.15826@bignews1.bellsouth.net>
Source record: 87885

"Daniel" <danibe@my-deja.com> wrote in message
news:b73f7787.0410200738.7a1ac461@posting.google.com...
> I am contemplating on combining the signals from two antennas onto one
> cable using some sort of an "RF combiner" (is this the right term? Is
> "RF mixer" a better term?).
>
> The idea is that I combine the signal from a dedicated omnidirectional
> FM antenna and a dedicated omnidirectional VFH/UFH antenna, since I
> have only one cable run in the house and I want to use it for both FM
> and TV reception.
>
> Does this idea make sense at all?
>
> If so, what's the market name of this "RF combiner" device I should be
> shopping for? Can you recommend a specific one? (does Radio-Shack have
> such?)
>
> Thanks,
> Daniel

I think you're talking about a splitter - about $2
give it a try
by the way - that 300-ohm flat cable has lower loss than the coax so if you
have a long run from the antennas, keep that in mind

---
Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.778 / Virus Database: 525 - Release Date: 10/15/2004

## 991. Re: Why?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 03:10:29 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <AKFdd.87409$yp.14191@bignews1.bellsouth.net>
Source record: 87886

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:osb9n05e6oth26m9t4cq97nkdu8u9eh23i@4ax.com...
> On Tue, 19 Oct 2004 00:49:42 -0400, "Hal Rosser"
> <hmrosser@bellsouth.net> wrote:
> >Try a different meter.
> Same problem.

Then check the darn thing with an antenna analyzer
sheesh!

---
Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.778 / Virus Database: 525 - Release Date: 10/15/2004

# 992. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 04:32:16 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <kZGdd.33160$QJ3.15826@newssvr21.news.prodigy.com>
Source record: 87887

Jim Kelley wrote:
>
>
> Tom Donaly wrote:
>
>> Jim Kelley wrote:
>>
>>> Tom Donaly wrote:
>>>
>>>> Next, Cecil, you're going to be talking about a "current gradient"
>>>> and a "scalar current field." Here's a question for you, Cecil, and
>>>> Richard Harrison, and Yuri, too: how do you take the gradient of
>>>> the current at a point on a transmission line, and, if were possible
>>>> to do so, what is the physical significance of the result?
>>>> 73,
>>>> Tom Donaly, KA6RUH
>>>
>>>
>>>
>>>
>>> The standing wave current profile along, for example, a quarter wave
>>> radiator is a cosine function. The gradient then would be the
>>> derivative of the cosine function which is a -sine function.
>>>
>>> 73, ac6xg
>>>
>>
>> Jim,
>> current, in a wire, is the total current density integrated across
>> a cross section of the wire. It's a vector, as is the current density.
>> Now tell me, how do you take the gradient of a vector? David K. Cheng,
>> in his book Field and Wave Electromagnetics, defines the gradient
>> operation this way: "We define the vector that represents both the
>> magnitude and the direction of the maximum space rate of increase
>> of a scalar as the gradient of that scalar." He wrote "scalar,"
>> not "vector," Jim. You and the rest of the boys are acting as if
>> current had magnitude but no direction, whereas it has both.
>> 73,
>> Tom Donaly, KA6RUH
>
>
> Not sure why you don't like gradients, Tom. I'm sure Mr. Cheng is
> undoubtedly correct, but I'm just as sure he didn't intend that sentence
> as any sort of definition of the term "gradient".

Actually, he did. It's the accepted definition of the term in
electromagnetics. You and Cecil are using the term in a more
general fashion which you've made up for the purpose. It doesn't
make much sense in an elecromagnetic setting. Similarly, Yuri,
Richard and Cecil made up a very loose term "current drop" for
a change in current at two ends of a coil. That was misleading
and wrong if they were trying to convey something about the
electromagnetics of a coil, which they were. I've seen you fellows
pick each other to death over trivia time and again. It's time
you paid attention to what you write.

That's something you
> have apparently read into it. The gradient in our case (since you
> proposed the question) would be expressed as the superposition of
> forward and reverse currents, with magnitude and phase (or direction if
> you prefer) written as a function of either position or angle *along*
> the radiator. It's nothing fancy. Honest. It's simply the rate of
> change of current as a function of position. The gradient across the
> radiator at any given point along the radiator could then be determined
> using some additional parameters - if someone were really that
> interested in it (which I'm not).
>
> 73, ac6xg
>

How could the gradient be in your case if I proposed the
question?
73,
Tom Donaly, KA6RUH

# 993. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 04:38:54 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41773b78$1_4@127.0.0.1>
Source record: 87888

Tom Donaly wrote:
> However, the
> term "current drop" as used by Yuri was wrong. There is no place for
> it in electromagnetic theory, and if you had known enough theory to
> understand that, you wouldn't have answered as you did.

I've been in Las Vegas for ten days and didn't see Yuri's posting.
All I know is there is a "current drop" from the current maximum
point to the current minimum point on a transmission line with
reflections. So exactly how did Yuri use "current drop"? If it is
through a mobile loading coil, I explain exactly how that happens
on my web page through the superposition of the forward and reflected
currents. For the typical base-loaded or center-loaded shortened
mobile antenna, If+Ir at one end of the coil is NOT equal to If+Ir
at the other end of the coil even if the two currents through the
coil are of constant magnitudes. I have explained that multiple times
here with no disagreement.

For typical standing-wave antennas with loading coils:
The forward current through a loading coil is reasonably constant.
The reflected current through a loading coil is reasonably constant.

The two above facts are obeying Kirchhoff's laws.

The total current is the sum of the forward current and the reflected
current and results in a cosine function standing wave on the antenna.
The differing phases of forward current and reflected current is what
causes the variation in the total current, i.e. the current drop.

The current drop in a standing wave antenna is similar to the current
drop in a section of transmission line with reflections. The governing
equations can be found in any EM textbook and for lossless situations
are of the form:

Itot = If*e^-yz - Ir*e^+yz

Losses to radiation or I^2*R add another couple of e^-2ad (attenuation)
terms.
--
73, Cecil http://www.qsl.net/w5dxp

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# 994. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 04:40:48 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41773be9$1_4@127.0.0.1>
Source record: 87889

Tom Donaly wrote:
> Besides, you missed the point again.

Sorry, I've been out of town for 10 days and haven't read
all the postings. So please bring me up to date. Exactly
what is "the point"?
--
73, Cecil http://www.qsl.net/w5dxp

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# 995. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 04:44:01 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41773cab$1_4@127.0.0.1>
Source record: 87890

Tom Donaly wrote:
> you've hit the nail squarely on the head. The validity of
> the whole argument boils down to whether or not you can safely neglect
> the effects of the physical dimensions of the inductor on the behavior
> of the antenna. It looks to me as if you can, but some of the other
> fellows on this newsgroup seem to be as much interested in
> characterizing Tom Rauch as a rat as they are in verifying some
> antenna effects due to the properties of real loading coils.

You guys have completely missed the point. The argument is not about
the behavior of the antenna. The original argument is/was about the
current in a real-world antenna loading coil. The behavior of the
antenna is irrelevant to that original argument.
--
73, Cecil http://www.qsl.net/w5dxp

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# 996. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 04:50:35 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41773e38_4@127.0.0.1>
Source record: 87891

Tom Donaly wrote:
> I
> don't agree with the term "current drop" because, even in a transmission
> line, current, or more properly, current density, doesn't act like a
> potential of any sort to which you could ascribe a "drop."

Webster defines "drop" as "to become less". Seems to me, the current
"becomes less" as one moves the measurement point from a current loop
to a current node on a standing-wave antenna.
--
73, Cecil http://www.qsl.net/w5dxp

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## 997. Re: help with partial reception

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 05:10:13 UTC
From: NSM <nowrite@to.me>
Message-ID: <VwHdd.24294$cr4.9148@edtnps84>
Source record: 87892
Cross-posted to: sci.electronics.repair,rec.radio.amateur.antenna

"mediancat" <bertiaux@yahoo.com> wrote in message
news:546afb93.0410200609.40f5f986@posting.google.com...

| in seattle, this antenna scheme is sold specifically to pull in a
| station that is west of the city, when all the other local stations
| are in town. so my main antenna points north toward downtown seattle,
| and this smaller one, that i mounted as instructed (on the same pole)
| points west. there is this small plastic box that is part of this
| kit. it too is mounted to the pole. i guess it's a splitter.

Try a dollar store splitter. It'll work in reverse as a combiner near enough
to test - and it's only a buck!

| i plug
| the little and big antennas into the box and a third cable runs down
| to the house. the station is not terribly far away - it used to come
| in fine, and they haven't degraded the signal. i live kind of on a
| hill so i don't think a building or hill is interfering with my signal
| path. when the coax connector is plugged into the tv, and all the
| other stations come in, channel 13 is snowy. you can barely make out
| what is going on.

# 998. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 05:13:15 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41774387_4@127.0.0.1>
Source record: 87893

Tom Donaly wrote:
> current, in a wire, is the total current density integrated across
> a cross section of the wire. It's a vector, ...

From "Fields and Waves in Communications Electronics", by Ramo, Whinnery,
& Van Duzer, page 239: "It must be recognized that the symbols in the
equations of this article have a *different* meaning from the same symbols
used in Art. 4.06. There they represented the instantaneous values of the
indicated *vector* and scalar quantities. Here they represent the complex
multipliers of e^jwt, giving the in-phase and out-of-phase parts with
respect to the chosen reference. The complex scalar quantities are commonly
referred to as *phasors*, ..."

From the IEEE Dictionary: "The phase angle of a phasor should not be
confused with the space angle of a vector."

You are obviously confusing vectors and phasors.
--
73, Cecil http://www.qsl.net/w5dxp

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# 999. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 05:18:59 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <417744dc$1_4@127.0.0.1>
Source record: 87894

Richard Clark wrote:
> There is no such Kirchoff law of two separate points of current, that
> is Kirchoff's voltage law. A point (singular, the only component of
> Kirchhoff's current law) has no dimension, any departure from this
> necessarily excludes itself from strict Kirchhoffian analysis.

Yes, you are starting to get it. Point inductances don't exist
in reality.
--
73, Cecil http://www.qsl.net/w5dxp

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# 1000. Re: help with partial reception

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 05:59:27 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <f6jen0hv329dk7v05v1dseekb933ut5c7c@4ax.com>
Source record: 87895
Cross-posted to: sci.electronics.repair,rec.radio.amateur.antenna

On Wed, 20 Oct 2004 12:31:41 -0500, "jakdedert"
<jdedert@bellsouth.net> wrote:

>With a system set up as described, I'm surprised he doesn't get some
>ghosting on channel 13 from the reflected signal coming off his main
>antenna. If so, trapping that channel before the splitter (combiner) would
>reduce the effect.

Hi jak,

Reflected signals on a nearby antenna (like one on the same mast) is
going to be totally invisible. The scan line crosses the screen in
62ï¿½S and an RF signal will travel 10 Miles in that time. For a ghost
to be observed the original and the reflection must exhibit some
significant portion (or multiple plus offset) of that value. Let's
arbitrarily call your TV 10 inches wide and set the reflection with a
1 mile path difference. Thus the two images (original and ghost)
would be offset by one inch.

Now let's ramp that 1 mile difference down to a couple of feet (those
two adjacent antennas). You should then appreciate that 1 inch ghost
offset will shrink to sub mm (to mix units). Conventional TV
bandwidths could not resolve the difference.

73's
Richard Clark, KB7QHC

# 1001. Re: Is lighting nuts?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 06:07:01 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <s5ken0h5gdjd8eeucdetbqmn4g4aptc8jq@4ax.com>
Source record: 87896

On 20 Oct 2004 12:21:27 EDT, raiar@bbs.galilei.com.nospam (Gary V. Deutschmann, Sr.) wrote:
>In some minor cases we found the places where lightning struck through
>burn and/or pit marks combined with visual observations of bystanders!
>Other times, the foot long melted out section of guttering was a dead
>giveaway along with the distortion of the rest of the guttering to
>ground.

Hi Gary,

By this, I suppose you to mean that any report of strikes to a tower were those chance occurrences of being seen as a direct hit, and no one regularly inspected all metal structures for evidence after a storm to verify unobserved strikes.

73's
Richard Clark, KB7QHC

# 1002. Re: WiMAX 802.16a specification

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 06:19:19 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <0jken0133s2524kake221ndnagvtusrqd9@4ax.com>
Source record: 87897

On Wed, 20 Oct 2004 22:28:27 -0300, "Beth McBob"
<BobbyLove_NotReally_@HotMail.com> wrote:

>Getting a lot of hits for "30" miles.
>
>This doesn't contradict your quote, just expands upon it.

Hi Beth,

The reason why it is inspecifically cited as "practical" is that throughput is negotiated against distance and greater demand against a constant capacity. If you want to share the same resource with 33 times more customers, you have to accept 3% the bandwidth. Classic Cellular Telephone history. BPL couldn't possible keep up with terabyte demand, star configurations against fiber optic trunks will prevail.

I really get a hoot out of correspondence here comparing BPL to advances in science like Penicillin, when it is more like the legacy of Thalidomide. Folks thought that was a miracle drug too.

73's
Richard Clark, KB7QHC

# 1003. Re: Fractenna lashes out at hams using BPL

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 06:23:48 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <r6len0draqtan9si6e10p3v3lhq7t3is7a@4ax.com>
Source record: 87899

On Wed, 20 Oct 2004 20:57:04 -0500, Tom Ring <news0000@taring.org>
wrote:

>Richard Clark wrote:
>
>> Today we get candy-asses like Buchasneer and Limabean who couldn't
>> fight a swish with his limp wrists tied behind his back. :-)
>>
>> 73's
>> Richard Clark, KB7QHC
>
>I would suggest you stick to what you are expert at, nitpicking EM,
>rather than what you aren't good at, which is attempting to be being cute.
>
>tom K0TAR

And you are Shirley Temple? No doubt I stepped on your fat icons
pudgy toes and those oinkers squeeled Ossama. :-)

73's
Richard Clark, KB7QHC

# 1004. 2,6 & 10 Mtr Vertical?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 06:24:49 UTC
From: Radio Man <puns@verizon.net>
Message-ID: <RCIdd.7880$n81.905@trnddc08>
Source record: 87898

Is it possible to construct or purchase a 2, 6 & 10 mtr
vertical?

# 1005. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 06:31:25 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <lolen092ucbubhecfvhsh9mqbuk1023q0e@4ax.com>
Source record: 87900

On Thu, 21 Oct 2004 00:18:59 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:
>starting to get it
took you a long time too.

# 1006. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 06:35:21 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <cvlen059pq4t69od2707674q16b1e0djjr@4ax.com>
Source record: 87901

On Wed, 20 Oct 2004 23:44:01 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:
> behavior of the antenna is irrelevant
sour grapes :-)

# 1007. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 06:52:11 UTC
From: Andrey <a8421@intergate.bc.ca>
Message-ID: <10nempbt5256i6e@corp.supernews.com>
Source record: 87902

"Fractenna" <fractenna@aol.com> wrote in message
news:20041020145206.11769.00002656@mb-m29.aol.com...
> >There were bunch of articles promising miracles, but it did not work
> >according to the promises, otherwise we would hear about it, see them
> >around.
> >
>
> Very interesting. Can you point out the citations of these articles
promising
> miracles?

Let's do it differently: you point out single Cell phone, Wi-Fi or other consumer gadget that uses Fractal antenna. Point out any other application when the fractal antenna made difference.

What specific advantages you can achieve using fractal pattern? Increase bandwidth to some degree, make it a bit smaller - it can be done in numerous other ways. What else?

Let's turn to some empirics. Here is a website of the company claiming to be inventors of Fractal Antenna: Fractal Antenna Systems.
http://www.fractalantenna.com/

They were making them since 1998 I guess, have patents, all that. Look at the antennas (the antennas look beautiful, btw, like jewelry) - they can make it for any applications. Yet we do not see those antennas. And it does not look like the guys swim in money.

What does it tell us?

Andrey

# 1008. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 06:53:01 UTC
From: fractenna@aol.com
Message-ID: <20041021025301.08561.00000525@mb-m22.aol.com>
Source record: 87903

>
>"Fractenna" <fractenna@aol.com> wrote in message
>news:20041020145206.11769.00002656@mb-m29.aol.com...
>> >There were bunch of articles promising miracles, but it did not work
>> >according to the promises, otherwise we would hear about it, see them
>> >around.
>> >
>>
>> Very interesting. Can you point out the citations of these articles
>promising
>> miracles?
>
>Let's do it differently: you point out single Cell phone, Wi-Fi or other
>consumer gadget that uses Fractal antenna. Point out any other application
>when the fractal antenna made difference.
>
>What specific advantages you can achieve using fractal pattern? Increase
>bandwidth to some degree, make it a bit smaller - it can be done in numerous
>other ways. What else?
>
>Let's turn to some empirics. Here is a website of the company claiming to be
>inventors of Fractal Antenna: Fractal Antenna Systems.
>http://www.fractalantenna.com/
>
>They were making them since 1998 I guess, have patents, all that. Look at
>the antennas (the antennas look beautiful, btw, like jewelry) - they can
>make it for any applications. Yet we do not see those antennas. And it does
>not look like the guys swim in money.
>
>What does it tell us?
>
>Andrey
>
It tells us that you are not seeking info; it tells us that you have an
agenda; it tells us that your interest has nothing to do with this NG:-)

Have a pleasant day there, eh?

73,
Chip N1IR

# 1009. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 07:04:19 UTC
From: fractenna@aol.com
Message-ID: <20041021030419.08561.00000526@mb-m22.aol.com>
Source record: 87904

>Be forewarned there is nothing about construction details. Their mere
>appearance should yield the reason why.
>
>73's
>Richard Clark, KB7QHC

Hi Richard,

Just so everyone is warned yet again, I personally would describe your site as a combination of non-attributed extant knowledge; trivial irrelevancies; and interpretations that do not follow from the data. It avoids any real info in extraordinary detail. Much of it is just plain wrong.

It is, as someone expert in the field, a poor source of info.

Knowing that you are eager for you and yours to be tied up in something bigger than a mere amateur's web site, I feel that I am most happy to back up those statements formally, meaning--why wait? Let it really be on the public record:-)? That way LOTS of people will see why my statements are accurate and that your agenda is, well, not motivated by the love of knowledge with regards to this subject

Your move, sport. It won't get resolved on a NG.

73,
Chip N1IR

## 1010. Re: Printing wire list from EZNEC?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 07:16:36 UTC
From: Chuck <wa7rai@raibeam.com>
Message-ID: <OfJdd.8660$6P5.1978@okepread02>
Source record: 87905

Chuck <wa7rai@raibeam.com> wrote in message news:DgFdd.8266$6P5.7511@okepread02...
>
>
> The RB-36x has 2 elements for each band,
> interlaced on a 14 foot boom, and weighs
> only 36 pounds.

Oops, that's a 12 foot boom, not 14...
please excuse the typo. :)

Chuck

# 1011. Re: 2,6 & 10 Mtr Vertical?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 07:19:53 UTC
From: Lou <FFSTA17NO@SPAMACESS995.COM>
Message-ID: <JrJdd.6017$Ae.3475@newsread1.dllstx09.us.to.verio.net>
Source record: 87906

I can't say how good it was as to quality or actual usage results, but MFJ made an antenna that was as you are asking about. I think it covered a few more bands too. Whether they still make it or not, I don't know.

Lou

"Radio Man" <puns@verizon.net> wrote in message news:RCIdd.7880$n81.905@trnddc08...
> Is it possible to construct or purchase a 2, 6 & 10 mtr
> vertical?
>

## 1012. ARX2B Ringo Ranger

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 07:43:24 UTC
From: theplanters95@aol.comnospam
Message-ID: <20041021034324.22449.00001296@mb-m06.aol.com>
Source record: 87907

I was recently given a Ringo Ranger. I downloaded the manual and found out that I'm missing a radial kit. Is it needed? How can I cheaply home brew the radial kit?

Randy ka4nma

# 1013. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 07:44:01 UTC
From: fractenna@aol.com
Message-ID: <20041021034401.08597.00000372@mb-m22.aol.com>
Source record: 87908

>
>>
>>"Fractenna" <fractenna@aol.com> wrote in message
>>news:20041020145206.11769.00002656@mb-m29.aol.com...
>>> >There were bunch of articles promising miracles, but it did not work
>>> >according to the promises, otherwise we would hear about it, see them
>>> >around.
>>> >
>>>
>>> Very interesting. Can you point out the citations of these articles
>>promising
>>> miracles?
>>
>>Let's do it differently: you point out single Cell phone, Wi-Fi or other
>>consumer gadget that uses Fractal antenna. Point out any other application
>>when the fractal antenna made difference.

Of course I could. But, even I can be convinced that a NG is not the site for commercial marketing, Andrey.

No reason to do it differently; I have invited you to make citations So...maybe I and others will learn something?

I will be happy to briefly discuss the technology and not the commercial products, however.

There is no question that in some single band cases, there are many different solutions that will meet a highly compromised need. The value equation in performance and cost, does, shall we say, benefit from the huge design space available with fractal antenna designs in other circumstances. That is, 99% of real needs.

The price of cell phone antennas has dropped from about $1.20USD to less than $0.09USD in the last 8 years. Let's say that in high volume (and for a given model, its actually not that high)the COGS is $0.06USD PU. Now pay the insurance premiums that the brain cancer litigation issue--an ongoing one, I might add-- adds. Suddenly, there's no reason to be in cell phones, unless you want to have a high chance of going out of business--as many antenna companies have; seems like one or two goes under every month or so. Obviously some folks want to continue to take that risk.

I'm not going to provide a list for you of products on this NG: customers, from my observation, want the emphasis to be on their product and not on a component in that product. I certainly know of applications in those markets you describe, in addition to emerging markets along those lines.

Of course, there is no reason why YOU can't spend some money and pop some tops.

Fractal antennas have made profound differences in the lives of many in the last few years, through their unique benefits in: smaller size; widebandedness; multibandedness; embedded/covert placement, control of observables; and so on. The early adopters have embraced the technology, and wireless commercial sector you allude to, after a very tough 2003, is coming back well.

So, you can see that the reality is very different from your statement. Or maybe you can't see that, in which case you should listen to someone who knows the reality.

I hope this helps. If you have commercial interests you know where to reach me off NG. Otherwise, it all goes outside of the scope of this forum, doesn't it?

73,
Chip N1IR

## 1014. Schematic Uniden UH040XR or UH042XR?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 07:59:48 UTC
From: Mac <vk2evb@hotmail.com>
Message-ID: <41776c69$0$21876$61ce578d@news.syd.swiftdsl.com.au>
Source record: 87909

Hi, I wonder if anyone has come across the schematic of a Uniden UH040XR or UH042XR (Australian). Looks like the same unit is used on FRS with 22 channels in the U.S.A. and possibly on another UHF range in asia. Have checked the usual sites but no luck.

tnx Peter

--
Amateurs built the Ark.....
Professionals built the Titanic.....

# 1015. Re: ARX2B Ringo Ranger

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 11:08:17 UTC
From: Scott <acepilot@bloomer.net>
Message-ID: <417798A1.8040901@bloomer.net>
Source record: 87910

You can buy the replacement (missing) parts direct from Cushcraft...at least you could a few years ago when I odered some replacment parts for my 6M yagi. I believe there was a version simply called the Ringo (minus the Ranger part) which was just the antenna without any sort of groundplane radials. You might just try using what you have and see what the SWR is like and/or how well it works.

Scott
N0EDV

Theplanters95 wrote:

> I was recently given a Ringo Ranger. I downloaded the manual and found out
> that I'm missing a radial kit. Is it needed? How can I cheaply home brew the
> radial kit?
>
> Randy ka4nma

--
Scott
http://corbenflyer.tripod.com/
Building RV-4
Gotta Fly or Gonna Die

## 1016. want to learn more about antenna designs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 11:13:16 UTC
From: peter <nospam@nospam.com>
Message-ID: <gRMdd.1724$JC5.1260@trnddc07>
Source record: 87911

Could someone point me to a web site or a book that explains how antenna works and why there are so many different shapes?

E.g. vertical rod, yagi, horn, parabolic, tin can, ...

Although I have electrical engineer background (long ago), I'm not interested in mathmatical formulas, just conceptual explanations so that I know what type of antenna to use in what situation.

# 1017. Re: 2,6 & 10 Mtr Vertical?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 11:17:19 UTC
From: Scott <acepilot@bloomer.net>
Message-ID: <41779ABF.5010305@bloomer.net>
Source record: 87912

For 6M and 2M, see the website on the copper cactus antenna. I have one on 2M and they work nicely. See http://archimedes.galilei.com/raiar/cactus.html for plans for copper cactus antennas from 6M up to 1296 MHz.

For a 10M vertical, you could buy a CB vertical and shorten the vertical and radial elements a bit to tune it up on 10M.

Scott

Radio Man wrote:

> Is it possible to construct or purchase a 2, 6 & 10 mtr
> vertical?
>
>

--
Scott
http://corbenflyer.tripod.com/
Building RV-4
Gotta Fly or Gonna Die

# 1018. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 11:31:18 UTC
From: derswede@aol.comspam.com
Message-ID: <20041021073118.13199.00002376@mb-m28.aol.com>
Source record: 87913

>Just so everyone is warned yet again, I personally would describe your site
>as
>a combination of non-attributed extant knowledge; trivial irrelevancies; and
>interpretations that do not follow from the data. It avoids any real info in
>extraordinary detail. Much of it is just plain wrong.
>
>It is, as someone expert in the field, a poor source of info.
>
> Knowing that you are eager for you and yours to be tied up in something
>bigger
>than a mere amateur's web site, I feel that I am most happy to back up those
>statements formally, meaning--why wait? Let it really be on the public
>record:-)? That way LOTS of people will see why my statements are accurate
>and
>that your agenda is, well, not motivated by the love of knowledge with
>regards
>to this subject
>
>Your move, sport. It won't get resolved on a NG.

Nice soliliquy...shows you "got sum learnin", as some say in this area....still haven't answered my question on the commercial availability of such antennas. Is anyone selling them so that a "normal" person could look at one? Website, retailer, wholesaler, etc?? If these things are so good, why is there only hyperbole and no commercially available applications?

"The proof of the pudding is in the tasting."
I would honestly like to see some indication that these things are a viable antenna. ï¿½Me intiendes?

A

# 1019. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 11:37:53 UTC
From: derswede@aol.comspam.com
Message-ID: <20041021073753.13199.00002377@mb-m28.aol.com>
Source record: 87914

>s a website of the company claiming to be
>>inventors of Fractal Antenna: Fractal Antenna Systems.
>>http://www.fractalantenna.com/

And I asked for "publicly accessable" info from Herr Doktor....he gave me the runaround; so, thank you for this link. Tho 25 bux for a reprinted article is a tad high......one could post a PDF rather easily.

A

# 1020. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 11:49:45 UTC
From: fractenna@aol.com
Message-ID: <20041021074945.23163.00002384@mb-m12.aol.com>
Source record: 87915

>And I asked for "publicly accessable" info from Herr Doktor....he gave me the
>runaround; so, thank you for this link. Tho 25 bux for a reprinted article
>is
>a tad high......one could post a PDF rather easily.

I gave you no runaround, sir. No one knows who you are, based upon your insistence on anonymoty.

Professionals act like professionals and don't hide behind screennames.

I gave you the opportunity to take it off-line, and you have refused to do so.

So, let me offer you a second opportunity. Tell us who you are, and where you work, on this NG, and I will be glad to answer your questions here.

73,
Chip N1IR

# 1021. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 11:51:01 UTC
From: fractenna@aol.com
Message-ID: <20041021075101.23163.00002385@mb-m12.aol.com>
Source record: 87916

>"The proof of the pudding is in the tasting."
>I would honestly like to see some indication that these things are a viable
>antenna. ï¿½Me intiendes?
>
>A

Then be an Honest A(be) and tell us who you are.

73,
Chip N1IR

# 1022. Re: ARX2B Ringo Ranger II

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 12:14:16 UTC
From: w9gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <sKNdd.165616$He1.26167@attbi_s01>
Source record: 87917

"Theplanters95" <theplanters95@aol.comnospam> wrote in message
news:20041021034324.22449.00001296@mb-m06.aol.com...
>I was recently given a Ringo Ranger. I downloaded the manual and found out
> that I'm missing a radial kit. Is it needed? How can I cheaply home brew
> the
> radial kit?
>
> Randy ka4nma

Randy -

Scott is partially correct.

In the early 1970's Cushcraft introduced the "Ringo" series (AR-xxx) for a number of VHF bands (10 meters, 6 meters, 222 MHz, 440 MHz) - both amateur and commercial (business band).
http://www.cushcraft.com/support/pdf/951284.pdf

The "Ringo Ranger" series (ARX-xxx) was developed a couple of years later. At first this antenna did NOT have the radials that you are missing.
http://www.cushcraft.com/support/pdf/951289.pdf

The "Ringo Ranger II" (ARX-xxxB) was introduced a number of years later (late 1980s) and this model added the Radial Ring and radials at a fixed distance below the Ranger.
http://www.cushcraft.com/support/pdf/951290.pdf

Greg
w9gb

# 1023. Re: ARX2B Ringo Ranger

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 12:23:29 UTC
From: w9gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <5TNdd.296348$3l3.277094@attbi_s03>
Source record: 87918

"Theplanters95" <theplanters95@aol.comnospam> wrote in message
news:20041021034324.22449.00001296@mb-m06.aol.com...
>
> I was recently given a Ringo Ranger. I downloaded the manual and found
> out
> that I'm missing a radial kit. Is it needed? How can I cheaply home brew
> the
> radial kit?
>
> Randy ka4nma

I would imaging that your Ringo Ranger never had the radial kit, because it is not a Ringo Ranger II. As Scott mentioned, you can purchase the specific parts from Cushcraft to convert your Ringo Ranger to a Ringo Ranger II (these part numbers can be found in the assembly / instruction manuals)

Cushcraft actually had a upgrade kit (specific parts as one order) in the 1970s and early 1980s -- for earlier Ringo buyers to "upgrade" their Ringo models to the Ringo Ranger model.

w9gb

# 1024. Re: WiMAX 802.16a specification

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 12:32:19 UTC
From: fractenna@aol.com
Message-ID: <20041021083219.03437.00001471@mb-m27.aol.com>
Source record: 87919

>I really get a hoot out of correspondence here comparing BPL to
>advances in science like Penicillin, when it is more like the legacy
>of Thalidomide. Folks thought that was a miracle drug too.
>
>73's
>Richard Clark, KB7QHC
>

I don't recall seeing anything like that. Can you cite the link? It doesn't show up on a google search on any NG I have found.

Have a lovely day.
Chip N1IR

# 1025. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 13:54:57 UTC
From: Mark <bigfathhairybiker@MAILhot.com>
Message-ID: <4177be9c$0$446$ed9e5944@reading.news.pipex.net>
Source record: 87920

"Fractenna" <fractenna@aol.com> wrote in message
news:20041021074945.23163.00002384@mb-m12.aol.com...
> >And I asked for "publicly accessable" info from Herr Doktor....he gave me
the
> >runaround; so, thank you for this link. Tho 25 bux for a reprinted
article
> >is
> >a tad high......one could post a PDF rather easily.
>
> I gave you no runaround, sir. No one knows who you are, based upon your
> insistence on anonymoty.
>
> Professionals act like professionals and don't hide behind screennames.
>
> I gave you the opportunity to take it off-line, and you have refused to do
so.
>
> So, let me offer you a second opportunity. Tell us who you are, and where
you
> work, on this NG, and I will be glad to answer your questions here.
>
> 73,
> Chip N1IR

I too would like to see the same information that Mr "A" is looking for.

I've looked at the Fractantenna web site and there is only marketing info
available.

Mark
M1MPW

# 1026. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 14:18:31 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <XyPdd.16837$nj.5870@newssvr13.news.prodigy.com>
Source record: 87821

Cecil Moore wrote:
> Tom Donaly wrote:
>
>> current, in a wire, is the total current density integrated across
>> a cross section of the wire. It's a vector, ...
>
>
> From "Fields and Waves in Communications Electronics", by Ramo, Whinnery,
> & Van Duzer, page 239: "It must be recognized that the symbols in the
> equations of this article have a *different* meaning from the same symbols
> used in Art. 4.06. There they represented the instantaneous values of the
> indicated *vector* and scalar quantities. Here they represent the complex
> multipliers of e^jwt, giving the in-phase and out-of-phase parts with
> respect to the chosen reference. The complex scalar quantities are commonly
> referred to as *phasors*, ..."
>
> From the IEEE Dictionary: "The phase angle of a phasor should not be
> confused with the space angle of a vector."
>
> You are obviously confusing vectors and phasors.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>
> -----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet
> News==----
> http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000
> Newsgroups
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You're just digging the hole deeper, Cecil. I know you think you can use
the simplifications of transmission line theory to explain everything
in electromagnetics. Reg seems to think that's a valid way of doing
things, too. If it were true, it would certainly make life easier for
those poor souls who have to study Maxwell's equations in colleges
throughout the world. Just think, no more vector calculus for engineers!
From what I've read on this group the past few days, many engineers
don't learn it anyway, so why not just dumb things down to
your level? Maybe you should write a letter to Texas A&M telling them
they don't have to teach it any more. (If they still do, that is. Some
colleges have dumbed themselves down considerably in the past 20 years.)
73,
Tom Donaly, KA6RUH

# 1027. Re: want to learn more about antenna designs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 14:20:50 UTC
From: richardharrison@webtv.net
Message-ID: <10859-4177C5C2-297@storefull-3252.bay.webtv.net>
Source record: 87823

Peter wrote:
"Could someone point to a web site or book that explains how antenna works and why there are so many different different shapes?"

The ARRL Antenna Book is a good start.

Best regards, Richard Harrison, KB5WZI

# 1028. Re: Is lighting nuts?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 14:29:56 UTC
From: raiar@bbs.galilei.com.nospam
Message-ID: <4177c2bd.186614609@news.galilei.com>
Source record: 87822

Hi Richard

I was just a lowly sophomore peon in a class of mostly upperclassmen who had started the project a few years before I went to skewl there.

The project was a side assignment for extra credit that just seemed to carry on for all the years I was there and a few years thereafter.

I was an avid model railroader quite adept at building miniature structures to emulate their full sized counterparts.
This was my contribution to the project, the modeling end of it.
When a new building was built in the town, I would make a scale model of it for the project layout board.
I had to pay special attention to what objects of a structure consisted of metal components and how they were attached to the structure and if they led to a grounding source, as all of these factors played an important part in the experimentation that was going on.

I knew what the project was about and what they were trying to prove with it. But I truly was not that interested in the purpose of the project as much as I was in the authenticity of detail in the structures used on the project layout board.

In other words, I learned just enough to be dangerous in my observations, hi hi.....

However, the success ratio of known lightning strikes to the red zones on our layout board was phenominal.
The data was collected by a whole different team than the team I was on, but the layout board was loaded with bright orange lightning bolts glued to places of known lightning strikes and all but 2 of them were in our red zones.

I should note that a red zone was simply a 1/8 to 1/4 inch wide line drawn on for example, the edges of gutters, at certain elevations on taller structures not shielded by another object.

Naturally we did not know about many lightning strikes that did no damage or were not observed.

My own antenna farm has been hit several times, but never was their any damage because of it.

In fact, one year we had a strange phenomenon that caused neighbors to call the fire department on a couple occassions. One of my Yagi's appeared to have orange sparks flying from it, sometimes for as long

as a half-hour, but usually only for a few seconds or minutes. I was only priviledged to see this myself in person one time. Scared the bejesus out of me when I did too!

One of the firemen knew a man who worked on tall commercial chimneys or something like that and told him about it.
The many came to my house, checked a few things out, talked to a couple of neighbors and showed them some photo's he had taken of a similar phenominon on other structures.
Turns out what was happening was weather conditions and the charge in the air was just right to cause what was termed as St. Elmo's Fire, a phenominon discovered on old sailing ships at sea during a storm.

I lived in that house roughly 20 years and this only happened for one short rainy season in only one of those years. I had never heard of a similar occurrance to ham antenna's before or after this event.
And I've been licensed for 45 years!

TTUL
Gary

# 1029. Re: Is lighting nuts?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 14:49:37 UTC
From: raiar@bbs.galilei.com.nospam
Message-ID: <4177c80b.187973125@news.galilei.com>
Source record: 87824

Hi Jack

The damage to my tower was directly my own fault.

It was of tubular aluminum construction and DID have drain holes in the legs so they could not readily fill with water.

I made two very dumb mistakes that contributed to the damage.
The first was using one of these holes for attaching the ground rod strap to the tower, instead of the clamp that WAS provided for the purpose.
And the second was backfilling over these holes when a new air conditioner was installed, and a small retaining wall placed between the steps, tower and A/C unit.

Had there not been water in the leg of the tower, it would have taken the hit unscathed.

There was a grounding strap on each leg of the tower at the unions between sections, these were installed properly or should I say, per the instructions, hi hi.....

Ironic, I was way overboard on everything else as far as protection from lightning. Had a copper bulkhead on the house, grounded of course. All coax shields were grounded first to the bulkhead and then through gas bottles which were also grounded. The station equipment was ground, even equipment in plastic cases I installed a ground to the chassis and they were grounded too.

I did everything right except I forgot about one old abandoned rotor cable that was coiled up behind 4 file cabinets, out of sight out of mind. Luck of the Irish, the day I took the hit, I had sparks flying all over my shack. My pooch who was young then, terrified of thunder, came to my office to be by me for protection, just when the sparks began to fly. He never came into my office ever again!
The only damage from this rotor wire was a few burn marks on the back of the file cabinets. The tower obviously took the main hit.

As an aside. A tree outside my mothers home was struck by lighting. Split that sucker almost all the way to the ground. Dad bolted it back together with threaded rods and it survived, it's still living too.
But the reason I brought it up is that INSIDE the house, sparks danced all over my mothers stainless steel kitchen sink, made burn marks and pits all over it. We later discovered the aerator on her faucet spout was fused to the spout and it too was severely burned and pitted.

Back then all the waste lines to the sink were metal, not PVC as used today and all the water lines are copper. So I assume both the sink and the faucet were grounded.

Makes one wonder how lightning got inside the house and bounced around in her sink and did enough damage that the sink and faucet had to be replaced.

TTUL
Gary

# 1030. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 14:56:39 UTC
From: fractenna@aol.com
Message-ID: <20041021105639.05710.00006458@mb-m14.aol.com>
Source record: 87825

>I've looked at the Fractantenna web site and there is only marketing info
>available.
>
>Mark
>M1MPW

Sure;

Drop me a line.

73,
Chip N1IR

# 1031. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 15:02:05 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <4177cd8e_4@127.0.0.1>
Source record: 87826

Richard Clark wrote:
> Cecil Moore <w5dxp@hotmail.com> wrote:
>>behavior of the antenna is irrelevant
>
> sour grapes :-)

Yes, from you guys. "OK, I admit I was wrong, but that original
argument didn't matter anyway." :-)

----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

# 1032. Re: want to learn more about antenna designs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 15:04:43 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <4177ce26_4@127.0.0.1>
Source record: 87827

peter wrote:
> Could someone point me to a web site or a book that explains how antenna
> works and why there are so many different shapes?

Most of us started with The ARRL Antenna Book.

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http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

# 1033. Re: Printing wire list from EZNEC?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 15:10:15 UTC
From: Wes Stewart <n7ws_@_yahoo.com>
Message-ID: <95ifn0tlrbc53m36um3pdcvho59ok4gqoi@4ax.com>
Source record: 87828

On Wed, 20 Oct 2004 19:44:12 -0700, "Chuck" <wa7rai@raibeam.com>
wrote:

[snip]
|
|Perhaps you should argue this with
|Dr. Ken Asmus, VA3KA , a scientist who
|conducted a shoot-out in Canada...

I'm sure that Dr. Asmus is a fine fellow, all-around good guy and he no longer beats his wife. But the minute I hear, "the RB-36x was 1-2 S units stronger", science has gone out the window and bafflegab has blown in.

[snip]
|
|It seems inconsistent that you repeatedly
|cry "unsubstantiated" then refuse to
|consider substance. Though I suppose
|if you bothered to check out the contest
|records, it may raise havoc with your
|unsubstantiated opinions, perhaps?... hi

Contest records are not "substance."

Comparative measurements on a calibrated antenna range would be substance. I will consider them.

SK

N7WS

# 1034. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 15:23:25 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <4177d292_4@127.0.0.1>
Source record: 87829

Tom Donaly wrote:
> You're just digging the hole deeper, Cecil. I know you think you can use
> the simplifications of transmission line theory to explain everything
> in electromagnetics.

The transmission line model is more complicated than the circuit
model and works for transmission lines, including antennas, which
are single-wire transmission lines. Your overly simplified circuit
model doesn't work for transmission lines or for antennas. That's
what got you (and others) into trouble. All you guys can do now
to try to save face is sandbag and divert the issue.
--
73, Cecil http://www.qsl.net/w5dxp

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http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
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# 1035. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 15:26:35 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <0qkfn0d5vkthpu1q0q9vbj58frcpqeffro@4ax.com>
Source record: 87830

On Thu, 21 Oct 2004 14:54:57 +0100, "Mark"
<bigfathhairybiker@MAILhot(swapemround).com> wrote:

>I've looked at the Fractantenna web site and there is only marketing info
>available.

Hi Mark,

And the intent in being obscure, or coy, is another marketing technique to churn a amateur newsgroup for commercial interest. When drawn into these banalities, the marketeer then steers the sucker through the maze of claims to elicit a public declaration "sure this looks good." Once having secured this admission from the prospect, the marketeer then has the leverage to ask "what is keeping you from giving me your money?"

All very standard and by the book [consult the recent activities of Mr. Spitzer, Attorney General for New York for other material found in "the book"].

73's
Richard Clark, KB7QHC

# 1036. Re: ARX2B Ringo Ranger

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 15:26:35 UTC
From: Crazy George <muNnscOh@attSglPobaAl.nMet>
Message-ID: <4177d869_1@news1.prserv.net>
Source record: 87832

Randy:

I noticed nobody answered question 1.

When the original Ringo was introduced, performance reports were all over the map. Some worked fantastically well,
others fantastically poorly. It was finally discovered the difference was due to mast and feedline radiation.
Sometimes the lengths were right to radiate well, other times, the antenna radiation was canceled by unwanted from the
support and feed. So, the radial kit was added. Four radials just over a quarter wave (20 inches seems to work well),
but I don't recall the exact position on the antenna. Just below the feedpoint seems right, but I defer to CushCraft if
you can get the location from the Ranger II manual.

--
Crazy George
Remove N O and S P A M imbedded in return address
"Theplanters95" <theplanters95@aol.comnospam> wrote in message
news:20041021034324.22449.00001296@mb-m06.aol.com...
> I was recently given a Ringo Ranger. I downloaded the manual and found out
> that I'm missing a radial kit. Is it needed? How can I cheaply home brew the
> radial kit?
>
> Randy ka4nma

# 1037. Re: Is lighting nuts?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 15:32:56 UTC
From: richardharrison@webtv.net
Message-ID: <13715-4177D6A8-688@storefull-3251.bay.webtv.net>
Source record: 87833

Gary Deutschmann wrote:
"Turns out what was happening was weather conditions and the charge in the air was just right to cause what was called St. Elmo`s fire---."

From my time in broadcast stations, I can testify these conditions repeat.

In my experience, the radio towers took all the lightning strikes in the area.

Charge buildup was a separate phenomenon.from lightning. This happened in the wind ahead of an approaching thunderstorm. The insulated guy segments would charge from the static in the air, announcing the approaching storm with loud reports when conditions were right. Peering out at the antennas disclosed flashes across the guy insulators producing the reports. There were many towers with many insulators which produced barrage fire. Noisy!

Best regards, Richard Harrison, KB5WZI

# 1038. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 15:33:07 UTC
From: fractenna@aol.com
Message-ID: <20041021113307.29874.00002152@mb-m14.aol.com>
Source record: 87831

>Hi Mark,
>
>And the intent in being obscure, or coy, is another marketing
>technique to churn a amateur newsgroup for commercial interest. When
>drawn into these banalities, the marketeer then steers the sucker
>through the maze of claims to elicit a public declaration "sure this
>looks good." Once having secured this admission from the prospect,
>the marketeer then has the leverage to ask "what is keeping you from
>giving me your money?"
>
>All very standard and by the book [consult the recent activities of
>Mr. Spitzer, Attorney General for New York for other material found in
>"the book"].
>
>73's
>Richard Clark, KB7QHC
>
>

This READS like language, but it's impossible to know exactly what is being said: context; subject; predicate; and so on.

So, what are you saying?

Who is misleading who; churning who; undertaking "techno-fraud"; and so on. These are words you have used, now put them together; fill us in.

Your answer Mr. Clark; not someone else's...

73,
Chip N1IR

## 1039. Re: help with partial reception

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 15:56:11 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <csmdnaiiSrNtRurcRVn-iw@comcast.com>
Source record: 87834
Cross-posted to: sci.electronics.repair,rec.radio.amateur.antenna

"WB2JKX" <mycall-N0SPAM@arrl.net> wrote in message
news:Gfwdd.14686$OD2.2007@bgtnsc05-news.ops.worldnet.att.net...
>
> mediancat <bertiaux@yahoo.com> wrote in message
> news:546afb93.0410200627.43fd74f8@posting.google.com...
>> >
>> > Although you've provided a good bit of detail, some questions still
> arise:
>> > just 'how' do you "touch the coax to the connection?" Are you touching
> just
>> > the inner conductor to the outside of the connector, or the inner
> conductor
>> > to the inner connection on the connector (not allowing the ground to
> make
>> > contact)? Are you touching the coax connector on the TV at
> all...perhaps
>> > instead the 300 ohm (if any) connectors?
>>
>> i believe i am touching both pieces, ever so slightly. i tried one of
>> the other cables in the scheme that has a longer inner conductor - to
>> allow the connection of that alone, but it didn't improve the picture.
>> perhaps i really am only touching the gound part of the coax to the
>> ground part of the tv connector. that would explain why when i fully
>> engage the connector, the signal gets crappy. i will try some other
>> combinations to see if i can clarify what i am doing.
>>
>
> It sounds like you no longer have a good circuit up to your antenna, and
> by
> just touching one conductor to the TV antenna connector your downlead is
> acting like a "longwire antenna", which gives some signal. When it is
> fully
> connected, the shield is grounded and now little if any signal reaches the
> TV.
>
This sounds like the most plausible explanation, especially since it used to
work. I would look for a bad connection at the antenna, or an F connector.

Tam/WB2TT

# 1040. Re: Is lighting nuts?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 15:56:31 UTC
From: Jack Painter <223bthp@cox.net>
Message-ID: <Q_Qdd.96350$Lo6.28884@fed1read03>
Source record: 87835

Hi Gary,

> I did everything right except I forgot about one old abandoned rotor
> cable that was coiled up behind 4 file cabinets, out of sight out of
> mind. Luck of the Irish, the day I took the hit, I had sparks flying
> all over my shack. My pooch who was young then, terrified of thunder,
> came to my office to be by me for protection, just when the sparks
> began to fly. He never came into my office ever again!
> The only damage from this rotor wire was a few burn marks on the back
> of the file cabinets. The tower obviously took the main hit.

A friend in Mobile, AL had several station equipments damaged this summer when protection was presumed to be "complete". Old cabling on the floor behind equipment racks was inductively charged and arced over to the equipment and computers, defeating the extensive surge protection installed. I had considered this a serious enugh problem to include it in a warning on my web page, and he was of course furious with himself about this since we had previously talked about it. This is also what I mean by the statement that lightning finds and exploits the weak parts of a system.

> As an aside. A tree outside my mothers home was struck by lighting.
> Split that sucker almost all the way to the ground. Dad bolted it
> back together with threaded rods and it survived, it's still living
> too.
> But the reason I brought it up is that INSIDE the house, sparks danced
> all over my mothers stainless steel kitchen sink, made burn marks and
> pits all over it. We later discovered the aerator on her faucet spout
> was fused to the spout and it too was severely burned and pitted.
>
> Back then all the waste lines to the sink were metal, not PVC as used
> today and all the water lines are copper. So I assume both the sink
> and the faucet were grounded.
>
> Makes one wonder how lightning got inside the house and bounced around
> in her sink and did enough damage that the sink and faucet had to be
> replaced.

Could be either from an older home's cold water pipe grounding, or EMI from the nearby strike. The former is more likely, when ground becomes saturated with HV from a nearby strike, it raises the potential of everything connected to it. Nowadays this is called "GPR" or Ground Potental Rise. Possibly one of the biggest causes of damage to stations that are otherwise "protected".

>
> TTUL

> Gary
>

Cheers,

Jack

# 1041. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 16:06:33 UTC
From: derswede@aol.comspam.com
Message-ID: <20041021120633.15036.00005324@mb-m02.aol.com>
Source record: 87836

>Then be an Honest A(be) and tell us who you are.

This is a newsgroup...emails are harvested just to sell to spammers. You may not mind getting a ton of email, but I do. However, remove the obvious from my munged email and send the reply on over. Name is Andrew, company is privately held (Bradford International), I work with Sara Lee, Kayser Roth, Golden Lady, Grupo Synkro, and others. ï¿½Basta?

And it was YOU who stated that this was "commercial"....not I, sir. Thus, it is up to you to prove so.

BIIYC

A

# 1042. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 16:29:15 UTC
From: richardharrison@webtv.net
Message-ID: <12235-4177E3DB-697@storefull-3255.bay.webtv.net>
Source record: 87837

Tom Donaly wrote:
"I know you think you can use the simplification of transmission line theory to explain everything in electromagnetics. Reg seems to think that`s a valid way of doing things, too."

I had a graduate course in Maxwell`s equations, but had a long rewarding career without using Maxwell directly.

Reg is an advocate of Oliver Heaviside`s work based on Maxwell. Nothing wrong with that.

In his 1950 work "Antennas", Kraus has this to say about Maxwell`s equations:

"Maxwell`s equations are summarized in the tables. The first table gives Maxwell`s equations in differential form and the second table in intergral form. The equations are stated for the general case, free-space case, harmonic-variation case, steady case (static fields but with conduction currents), and static case (static fields with no currents). In the table giving the integral form, the equivalence is also indicated between the various equations and the electrical potential or emf, the magnetic potential or mmf, the electric current, the electric flux, and then magnetic flux.

Many texts do very well with no mention of Maxwell despite his contributions to electromagnetics. That`s too bad, but that`s the way it is.

Best regards, Richard Harrison, KB5WZI

# 1043. Ready for the polls in Kentucky!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 16:33:11 UTC
From: Smitty
Message-ID: <ilRdd.168$mf7.166@fe39.usenetserver.com>
Source record: 87838

VOTE REPUBLICAN!

VOTE BUSH!

I'm Registered for to Vote Republican for 2004 here in Kentucky

My Dad is Registered to Vote Republican for 2004 here in Kentucky

My Mom is Registered to Vote Republican for 2004 here in Kentucky

My 3 Brothers are Registered to Vote Republican for 2004 here in Kentucky

My 5 sisters are Registered to Vote Republican for 2004 here in Kentucky

Both my Gandpa's and Grandma's are registered to Vote Repubican for 2004 here in Kentucky

My 5 Uncles and my 7 aunts are registered to Vote Republican for 2004 here in Kentucky

And I'm the only one of us that hasnt died of old age yet!

The last of them to die.....died 6 years ago! And supposedly they ALL Voted Republican in the last election too!

Figure that one out??!! LOL!

As long as BUSH WINS......Who Cares!

Smitty

# 1044. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 16:39:03 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <cl8p0l$oo0$1@news.service.uci.edu>
Source record: 87839

Tom Donaly wrote:
> Jim Kelley wrote:
>> Not sure why you don't like gradients, Tom. I'm sure Mr. Cheng is
>> undoubtedly correct, but I'm just as sure he didn't intend that
>> sentence as any sort of definition of the term "gradient".
>
>
> Actually, he did. It's the accepted definition of the term in
> electromagnetics. You and Cecil are using the term in a more
> general fashion which you've made up for the purpose. It doesn't
> make much sense in an elecromagnetic setting. Similarly, Yuri,
> Richard and Cecil made up a very loose term "current drop" for
> a change in current at two ends of a coil. That was misleading
> and wrong if they were trying to convey something about the
> electromagnetics of a coil, which they were. I've seen you fellows
> pick each other to death over trivia time and again. It's time
> you paid attention to what you write.
>
> That's something you
>
>> have apparently read into it. The gradient in our case (since you
>> proposed the question) would be expressed as the superposition of
>> forward and reverse currents, with magnitude and phase (or direction
>> if you prefer) written as a function of either position or angle
>> *along* the radiator. It's nothing fancy. Honest. It's simply the
>> rate of change of current as a function of position. The gradient
>> across the radiator at any given point along the radiator could then
>> be determined using some additional parameters - if someone were
>> really that interested in it (which I'm not).
>>
>> 73, ac6xg
>>
>
> How could the gradient be in your case if I proposed the
> question?
> 73,
> Tom Donaly, KA6RUH

Are you trying to make some point? If so, I'd sure like to know what it is. It appears you're trying to pretend that the gradient (a mathematical term) in the standing wave current along the length of a radiator doesn't exist. Why? It's a very simple and straightforward notion.

73, Jim AC6XG

# 1045. Re: want to learn more about antenna designs

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 16:56:29 UTC
From: Keyboard In The Wilderness <Key@Kennel.net>
Message-ID: <1TRdd.51838$hj.43821@fed1read07>
Source record: 87840

See Navy Training Course URL:
http://www.cs.tcd.ie/Stephen.Farrell/ipn/background/US-Navy-NEETS/Module10-14182.pdf

--
The Anon Keyboard
I doubt, therefore I might be
---
> peter wrote:
>> Could someone point me to a web site or a book that explains how antenna
>> works and why there are so many different shapes?

# 1046. Re: Ready for the polls in Kentucky!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 16:59:22 UTC
From: John Franklin <jpfrank@peoplepc.com>
Message-ID: <KVRdd.3456$5i5.3141@newsread2.news.atl.earthlink.net>
Source record: 87841

Just WHAT has this to do with antennas?

"Smitty" <SmittyS@"nospam"alltel.net> wrote in message
news:iIRdd.168$mf7.166@fe39.usenetserver.com...
> VOTE REPUBLICAN!
>
> VOTE BUSH!
>
>
> I'm Registered for to Vote Republican for 2004 here in Kentucky
>
> My Dad is Registered to Vote Republican for 2004 here in Kentucky
>
> My Mom is Registered to Vote Republican for 2004 here in Kentucky
>
> My 3 Brothers are Registered to Vote Republican for 2004 here in Kentucky
>
> My 5 sisters are Registered to Vote Republican for 2004 here in Kentucky
>
> Both my Gandpa's and Grandma's are registered to Vote Repubican for 2004
> here in Kentucky
>
> My 5 Uncles and my 7 aunts are registered to Vote Republican for 2004
> here
> in Kentucky
>
>
> And I'm the only one of us that hasnt died of old age yet!
>
> The last of them to die.....died 6 years ago! And supposedly they ALL
> Voted
> Republican in the last election too!
>
> Figure that one out??!! LOL!
>
> As long as BUSH WINS......Who Cares!
>
> Smitty
>
>
>
>
>

# 1047. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 17:16:16 UTC
From: fractenna@aol.com
Message-ID: <20041021131616.07384.00002961@mb-m29.aol.com>
Source record: 87842

>This is a newsgroup...emails are harvested just to sell to spammers. You may
>not mind getting a ton of email, but I do. However, remove the obvious from
>my
>munged email and send the reply on over. Name is Andrew, company is
>privately
>held (Bradford International), I work with Sara Lee, Kayser Roth, Golden
>Lady,
>Grupo Synkro, and others. ï¿½Basta?
>
>And it was YOU who stated that this was "commercial"....not I, sir. Thus, it
>is up to you to prove so.
>
>BIIYC
>
>A
>
Well, so you want to be an Honest Andrew; good start. Pleased to meet you.
Now, since you feel uncomfortable discussing who you really are (last name?),
it seems to me you'd be most comfortable taking my original suggestion: take it
off-line and ID. Look forward to your e-mail.

73,
Chip N1IR

# 1048. Re: Printing wire list from EZNEC?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 17:35:12 UTC
From: Chuck <wa7rai@raibeam.com>
Message-ID: <mkSdd.9062$6P5.3770@okepread02>
Source record: 87843

Wes Stewart <n7ws_@_yahoo.com> wrote in message
news:95ifn0tlrbc53m36um3pdcvho59ok4gqoi@4ax.com...
> On Wed, 20 Oct 2004 19:44:12 -0700, "Chuck" <wa7rai@raibeam.com>
> wrote:
>
> [snip]
> |
> |Perhaps you should argue this with
> |Dr. Ken Asmus, VA3KA , a scientist who
> |conducted a shoot-out in Canada...
>
> I'm sure that Dr. Asmus is a fine fellow, all-around good guy and he
> no longer beats his wife. But the minute I hear, "the RB-36x was 1-2
> S units stronger", science has gone out the window and bafflegab has
> blown in.

Wes,

You demean a scientist merely to
feed your perverted ego and maintain
your narrow-minded preconceptions?

Where is the intellectual honesty in
that? Where is the science in that?

You demonstrate the only kind of
science you support is that which
confirms your silly preconceptions,
despite reality.

Which would imply, had the
comparison gone the other way,
you'd have accepted that data
unquestioned.

Hypocrisy has no standing in real
science.

>
> [snip]
> |
> |It seems inconsistent that you repeatedly
> |cry "unsubstantiated" then refuse to
> |consider substance. Though I suppose
> |if you bothered to check out the contest
> |records, it may raise havoc with your

> |unsubstantiated opinions, perhaps?... hi
>
> Contest records are not "substance."
>
> Comparative measurements on a calibrated antenna range would be
> substance. I will consider them.

Since you've established that your
mind is an impenetrable brick, I'd
venture to say you'd reject test
range data outright, if it failed to
meet your silly preconceptions.

Do you still live in Tucson? Just
a 100 miles south of me...

If so, I invite you to consider this:

Let me know the next time you're
on 17m... I'd be happy to blow your
silly 3 el yagi away with my measly
2 elements...

Have a nice...

73 de Chuck, WA7RAI

> SK
>
> N7WS

# 1049. Re: Ready for the polls in Kentucky!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 17:43:57 UTC
From: "aunwin@insightbb.com"
Message-ID: <xzSdd.282824$MQ5.248361@attbi_s52>
Source record: 87844

We could get a new F.C.C. chaiman !!!!!!
"John Franklin" <jpfrank@peoplepc.com> wrote in message
news:KVRdd.3456$5i5.3141@newsread2.news.atl.earthlink.net...
> Just WHAT has this to do with antennas?
>
> "Smitty" <SmittyS@"nospam"alltel.net> wrote in message
> news:iIRdd.168$mf7.166@fe39.usenetserver.com...
> > VOTE REPUBLICAN!
> >
> > VOTE BUSH!
> >
> >
> > I'm Registered for to Vote Republican for 2004 here in Kentucky
> >
> > My Dad is Registered to Vote Republican for 2004 here in Kentucky
> >
> > My Mom is Registered to Vote Republican for 2004 here in Kentucky
> >
> > My 3 Brothers are Registered to Vote Republican for 2004 here in
Kentucky
> >
> > My 5 sisters are Registered to Vote Republican for 2004 here in Kentucky
> >
> > Both my Gandpa's and Grandma's are registered to Vote Repubican for
2004
> > here in Kentucky
> >
> > My 5 Uncles and my 7 aunts are registered to Vote Republican for 2004
> > here
> > in Kentucky
> >
> >
> > And I'm the only one of us that hasnt died of old age yet!
> >
> > The last of them to die.....died 6 years ago! And supposedly they ALL
> > Voted
> > Republican in the last election too!
> >
> > Figure that one out??!! LOL!
> >
> > As long as BUSH WINS......Who Cares!
> >
> > Smitty
> >

> >
> >
> >
> >
>
>

# 1050. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 18:03:31 UTC
From: derswede@aol.comspam.com
Message-ID: <20041021140331.05204.00001655@mb-m23.aol.com>
Source record: 87845

>Well, so you want to be an Honest Andrew; good start. Pleased to meet you.
>Now, since you feel uncomfortable discussing who you really are (last name?),
>it seems to me you'd be most comfortable taking my original suggestion: take
>it
>off-line and ID. Look forward to your e-mail.
>
>73,
>Chip N1IR

Sheesh, how stubborn/bull-headed are you??? If my customers had to go thru this much to get info, I would have closed down years ago. You have my email addy...just send the bloody info. All I have asked for is info on who is using mandelbrot ("fractal") style antennas in a commercial application which can be accessed either via the 'Net or via literature which can be requested (i.e., a company which is producing such antennas for commercial sale).

A

# 1051. Re: help with partial reception

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 18:04:42 UTC
From: jakdedert <jdedert@bellsouth.net>
Message-ID: <JQSdd.186178$as2.66093@bignews3.bellsouth.net>
Source record: 87846
Cross-posted to: sci.electronics.repair,rec.radio.amateur.antenna

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:f6jen0hv329dk7v05v1dseekb933ut5c7c@4ax.com...
> On Wed, 20 Oct 2004 12:31:41 -0500, "jakdedert"
> <jdedert@bellsouth.net> wrote:
>
> >With a system set up as described, I'm surprised he doesn't get some
> >ghosting on channel 13 from the reflected signal coming off his main
> >antenna. If so, trapping that channel before the splitter (combiner)
would
> >reduce the effect.
>
> Hi jak,
>
> Reflected signals on a nearby antenna (like one on the same mast) is
> going to be totally invisible. The scan line crosses the screen in
> 62�S and an RF signal will travel 10 Miles in that time. For a ghost
> to be observed the original and the reflection must exhibit some
> significant portion (or multiple plus offset) of that value. Let's
> arbitrarily call your TV 10 inches wide and set the reflection with a
> 1 mile path difference. Thus the two images (original and ghost)
> would be offset by one inch.
>
> Now let's ramp that 1 mile difference down to a couple of feet (those
> two adjacent antennas). You should then appreciate that 1 inch ghost
> offset will shrink to sub mm (to mix units). Conventional TV
> bandwidths could not resolve the difference.

You misunderstood me. I didn't mean the reflections from the antennas themselves. I was talking about reflected signals picked up by the off-axis 'main' all channel antenna. Of course, for the reflections to occur, there would have to be some geographical or architectural feature for them to reflect off of. In my neighborhood (near center of a metro area), rooftop antennas have to be rotated for each individual channel. Many times, the optimum direction is more a function of achieving fewer ghosts than aiming directly at the station.

jak
>
> 73's
> Richard Clark, KB7QHC

# 1052. Re: The Best of All Worlds???

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 18:10:19 UTC
From: danibe@my-deja.com
Message-ID: <b73f7787.0410211010.2d020704@posting.google.com>
Source record: 87848

Bob Bob <bcnntp@optusnet.com.au> wrote in message
news:<plri42-hmg.ln1@p400bob.lse.com.au>...
> Generally a mixer in radio terms is a device where two frequencies are
> input and the sum or difference of them is the output. So you are
> talking about a combiner..

You are right - I am talking about a combiner (some companies call it
a "joiner"?)

> I think you'll have some trouble with your intentions.
>
> It is relatively easy to combine the signals from two antennas and then
> split them into two receiving devices. (The antenna combiner might be
> the same as the splitter only connected the opposite way. Its usually a
> passive device so will work equally well in both directions)

OK, so if I understand you correctly *any* splitter can work as a
combiner?

If so, do you have an idea why the following splitter is *not* labeld
as a combiner: http://tinyurl.com/kzr2, while the following:
http://tinyurl.com/6k5a9 is labled as such?

> The problem is that since the bands of use are similar you cant stop
> (say) the FM omni receiving some signal from the TV band transmission
> appearing at the input to the TV. This will most likely cause ghosting
> or other degradation.
>
> I suspect that you mean unidirectional VHF/UHF antenna rather than an
> omni. Using an omni is very likely to also create TV ghosting.

I didn't initially mean that (since I was hoping to receive more than
one station), but now that I read your explanation I have to accept
your suggestion. In fact, my current setting is a single
unidirectional FM/VHF/UHF antenna (http://tinyurl.com/52tjr) in my
attic, but because the space in the attic does not allow using a
rotator and because I have only one coax arriving to my living room, I
need some creative solutions to achieve the goal of having both the FM
and TV antenna signals arriving on a *single* coax to the living room
(afer which it can neatly be split behind the entertainment center
furniture).

> You could conceivably notch the output of the omni to not pass TV
> signals but by now the project is getting kind of expensive.

I don't mind spending a reasonable amount of money on a good solution.
Do you happen to know of such products (that would filter out TV

signal)?

> I suggest you just use the one TV unidirectional antenna and have a
> single splitter inside the house connected to the FM radio and TV. You
> may get sufficient FM signal for your needs.

Currently this is indeed the situation, but because the antenna is
unidirectional, I can only receive certain FM radio stations - and I
miss some important (local) others. I find this unacceptable given the
fact that even my poor kitchen radio can receive all local stations
pretty well with a simple built-in whip antenna... Hence my idea of
installing an omnidirectional FM antenna in the attic and combining it
with the TV signal for the single coax.

BTW, if an omnidirectional TV antenna is *always* a bad idea because
of ghosting, how come such antennas are offered on the marketplace at
all? (such as the Winegard MS2000:
http://www.starkelectronic.com/wms2000.htm)?

> Cheers Bob VK2YQA

Thank you so much, Bob!

Daniel

>
> Daniel wrote:
> > I am contemplating on combining the signals from two antennas onto one
> > cable using some sort of an "RF combiner" (is this the right term? Is
> > "RF mixer" a better term?).
> >
> > The idea is that I combine the signal from a dedicated omnidirectional
> > FM antenna and a dedicated omnidirectional VFH/UFH antenna, since I
> > have only one cable run in the house and I want to use it for both FM
> > and TV reception.
> >
> > Does this idea make sense at all?
> >
> > If so, what's the market name of this "RF combiner" device I should be
> > shopping for? Can you recommend a specific one? (does Radio-Shack have
> > such?)
> >
> > Thanks,
> > Daniel

# 1053. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 18:12:41 UTC
From: derswede@aol.comspam.com
Message-ID: <20041021141241.05204.00001656@mb-m23.aol.com>
Source record: 87849

>Sheesh, how stubborn/bull-headed are you??? If my customers had to go thru
>this much to get info, I would have closed down years ago. You have my email

Please forget all the above. The customer just called...he has found a source
of similar products in Europe and will be purchasing from them.
A

# 1054. Re: Gain per unit length of boom

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 18:14:59 UTC
From: Chuck <wa7rai@raibeam.com>
Message-ID: <fVSdd.9064$6P5.7971@okepread02>
Source record: 87847

aunwin@insightbb.com <aunwin@insightbb.com@insightbb.com> wrote in message
news:bMDdd.293802$3l3.275124@attbi_s03...

> "Chuck" <wa7rai@raibeam.com> wrote in message
> news:XrBdd.8254$6P5.7645@okepread02...
> snip.

> > I'm not sure if I follow this correctly...
> > please elaborate further.
> >
>
>
> Certainly
> To attain maximum gain per unit length the model dimensions
> were all variables as was the number of elements. Not only
> was the driven element current often less than another element in the array
> it was sometimes found that the maximum current element required a diameter
> of a few thousanths that was not sufficient to carry 1Kw.!
> Obviously the gain attained was over ruled by the inability of the element
> to meet operational requirements.
> I might add that I use fibre fishing rods for my antennas where I can apply
> the correct
> wire diameters ( or aluminum foil) to an array without being encumbered by
> mechanical restrictions.
> This removes me from the normal restrictions applied to antennas where
> element diameter
> is pre-controlled for mechanical reasons which often conflict with
> scientific requirements
> The above statement does conflicts with your assesment stated above
> regarding critical coupling
> but this is what I found and I will leave it at that
> Regards
> Art.

Hi Art,

Ok, I'm always open minded to learn
something new...

I'd like to establish a few things, though.

First of all, what modeling program are
you using?

Is your empirical data consistent with
the models?

How are you ascertaining your empirical data?

How are you determining the current amplitudes: By model? Or empirically?

And what are the machinations that demand ultra-thin wires to establish the gain?

You can email me if you care to not discuss these things in an open forum.

73, de Chuck, WA7RAI
<wa7rai at cox dot net>

# 1055. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 18:32:37 UTC
From: fractenna@aol.com
Message-ID: <20041021143237.25434.00002566@mb-m04.aol.com>
Source record: 87850

>Sheesh, how stubborn/bull-headed are you??? If my customers had to go thru
>this much to get info, I would have closed down years ago.

I presume your customers have the advantage in that you identify yourself to them, Andrew.

I have no idea who you are.

As I said, drop me a line. I've already gone the extra mile.

Best wishes,
Chip N1IR

# 1056. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 18:34:10 UTC
From: fractenna@aol.com
Message-ID: <20041021143410.25434.00002567@mb-m04.aol.com>
Source record: 87851

>Please forget all the above. The customer just called...he has found a
>source
>of similar products in Europe and will be purchasing from them.
>A

Then you can tell your customer that you failed to identify yourself and your customer's needs.

Somehow, I suspect you will not do so.

Cheers,

Chip N1IR

# 1057. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 18:52:03 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <nzTdd.8556$6q2.7597@newssvr14.news.prodigy.com>
Source record: 87852

Jim Kelley wrote:
>
>
> Tom Donaly wrote:
>
>> Jim Kelley wrote:
>>
>>> Not sure why you don't like gradients, Tom. I'm sure Mr. Cheng is
>>> undoubtedly correct, but I'm just as sure he didn't intend that
>>> sentence as any sort of definition of the term "gradient".
>>
>>
>>
>> Actually, he did. It's the accepted definition of the term in
>> electromagnetics. You and Cecil are using the term in a more
>> general fashion which you've made up for the purpose. It doesn't
>> make much sense in an elecromagnetic setting. Similarly, Yuri,
>> Richard and Cecil made up a very loose term "current drop" for
>> a change in current at two ends of a coil. That was misleading
>> and wrong if they were trying to convey something about the
>> electromagnetics of a coil, which they were. I've seen you fellows
>> pick each other to death over trivia time and again. It's time
>> you paid attention to what you write.
>>
>> That's something you
>>
>>> have apparently read into it. The gradient in our case (since you
>>> proposed the question) would be expressed as the superposition of
>>> forward and reverse currents, with magnitude and phase (or direction
>>> if you prefer) written as a function of either position or angle
>>> *along* the radiator. It's nothing fancy. Honest. It's simply the
>>> rate of change of current as a function of position. The gradient
>>> across the radiator at any given point along the radiator could then
>>> be determined using some additional parameters - if someone were
>>> really that interested in it (which I'm not).
>>>
>>> 73, ac6xg
>>>
>>
>> How could the gradient be in your case if I proposed the
>> question?
>> 73,
>> Tom Donaly, KA6RUH
>

>
> Are you trying to make some point? If so, I'd sure like to know what it
> is. It appears you're trying to pretend that the gradient (a
> mathematical term) in the standing wave current along the length of a
> radiator doesn't exist. Why? It's a very simple and straightforward
> notion.
>
> 73, Jim AC6XG
>

Keep trying, Jim.
73,
Tom Donaly, KA6RUH

# 1058. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 18:53:24 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <EATdd.8559$6q2.1862@newssvr14.news.prodigy.com>
Source record: 87853

Cecil Moore wrote:

> Tom Donaly wrote:
>
>> You're just digging the hole deeper, Cecil. I know you think you can use
>> the simplifications of transmission line theory to explain everything
>> in electromagnetics.
>
>
> The transmission line model is more complicated than the circuit
> model and works for transmission lines, including antennas, which
> are single-wire transmission lines. Your overly simplified circuit
> model doesn't work for transmission lines or for antennas. That's
> what got you (and others) into trouble. All you guys can do now
> to try to save face is sandbag and divert the issue.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>
> -----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet
> News==----
> http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000
> Newsgroups
> ---= East/West-Coast Server Farms - Total Privacy via Encryption =---

Who said anything about a circuit model?
73,
Tom Donaly, KA6RUH

# 1059. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 19:03:46 UTC
From: derswede@aol.comspam.com
Message-ID: <20041021150346.08741.00002233@mb-m13.aol.com>
Source record: 87854

>Then you can tell your customer that you failed to identify yourself and your
>customer's needs.
>
>Somehow, I suspect you will not do so.

Not only have been told, they wish not to be identified and agreed with the approach, as they're more interested in viable/available technology....the European company is under the same conditions (and it turns out that they have been following these exchanges).
A

# 1060. Re: Ready for the polls in Kentucky!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 19:13:42 UTC
From: Bob Bob <bcnntp@optusnet.com.au>
Message-ID: <7cel42-jtn.ln1@p400bob.lse.com.au>
Source record: 87861

So I have to ask...

What is a republican registration and is it contagious?

I have lots of bush in my backyard.. But there is no way I'll let it win!

Bob VK2YQA (VK=Australia!)

Smitty wrote:
> VOTE REPUBLICAN!
>
> VOTE BUSH!
>
>
> I'm Registered for to Vote Republican for 2004 here in Kentucky
>
> My Dad is Registered to Vote Republican for 2004 here in Kentucky
>
> My Mom is Registered to Vote Republican for 2004 here in Kentucky
>
> My 3 Brothers are Registered to Vote Republican for 2004 here in Kentucky
>
> My 5 sisters are Registered to Vote Republican for 2004 here in Kentucky
>
> Both my Gandpa's and Grandma's are registered to Vote Repubican for 2004
> here in Kentucky
>
> My 5 Uncles and my 7 aunts are registered to Vote Republican for 2004 here
> in Kentucky
>
>
> And I'm the only one of us that hasnt died of old age yet!
>
> The last of them to die.....died 6 years ago! And supposedly they ALL Voted
> Republican in the last election too!
>
> Figure that one out??!! LOL!
>
> As long as BUSH WINS......Who Cares!
>
> Smitty
>
>
>
>

>

## 1061. (OT) BPL Alternative

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 19:18:39 UTC
From: Jim <IHateSpam@NoSpam.net>
Message-ID: <bYTdd.184$mf7.161@fe39.usenetserver.com>
Source record: 87856

There has been some discussion here on the pros and cons of BPL.

I thought I would through in my 2 cents worth...

Why doesn't the FCC 'suggest' that cell phone and PCS companies install some type of WiFi node at every cell site in the country?

A few questions on this: What percentage of homes have a computer? What percentage of those use the internet regularly? Of those, what percentage would use DSL or cable modem (if available)? If WiFi was available everywhere, how much would it have to cost in order to even break even?

Jim
N8EE

# 1062. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 19:19:06 UTC
From: Andrey <a8421@intergate.bc.ca>
Message-ID: <10ng2hq6opkiq95@corp.supernews.com>
Source record: 87855

I think this Fractenna guy is ... ? ... or something. He managed to argue here with everyone who asked him questions.

Now, does he really represent Fractal Antenna Systems?
http://www.fractalantenna.com/
All the patents mentioned on this Website have single author: Nathan Cohen.

If that's him and he makes all this noise on behalf of his company (pretty unrealistic assumption anyway) ... this is not a good way to market innovations, be it fractal antennas or anything.

They may be good innovations then, just hindered by his approach.

Andrey

PS: If someone has commercial request for Antenna design, I can help too - I do it for living. No fractals, just whips, patches, dipoles, loops, arrays - everything from the classic books. I am an older guy. And of course, matching, tuning, conforming and any sorts of customization. I have several patents too, though I do not think of them as anything special.

--
Andrey Gleener R&D Services Ltd.
4775 Gilpin Crt. Burnaby
BC V5G 3A1
Tel: 604 844 7578
EMail: a8421@intergate.bc.ca

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:0qkfn0d5vkthpu1q0q9vbj58frcpqeffro@4ax.com...
> On Thu, 21 Oct 2004 14:54:57 +0100, "Mark"
> <bigfathhairybiker@MAILhot(swapemround).com> wrote:
>
> >I've looked at the Fractantenna web site and there is only marketing info
> >available.
>
> Hi Mark,
>
> And the intent in being obscure, or coy, is another marketing
> technique to churn a amateur newsgroup for commercial interest. When
> drawn into these banalities, the marketeer then steers the sucker
> through the maze of claims to elicit a public declaration "sure this
> looks good." Once having secured this admission from the prospect,
> the marketeer then has the leverage to ask "what is keeping you from
> giving me your money?"
>

> All very standard and by the book [consult the recent activities of
> Mr. Spitzer, Attorney General for New York for other material found in
> "the book"].
>
> 73's
> Richard Clark, KB7QHC

# 1063. Re: Gain per unit length of boom

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 19:26:17 UTC
From: richardharrison@webtv.net
Message-ID: <10982-41780D59-822@storefull-3257.bay.webtv.net>
Source record: 87859

Ian White, G3SEK wrote:
"Drawing gain curves is a fun activity...but don`t try to read too much into them."

I searched on "yagi boom". I got many responses. One showed Ian as the custodian of a computer program to design yagis. Another was from the Central States VHF Society and gives results of their 2004 gain comparisons of many different antennas. Gain of these versus boom length looks very ragged.

Best regards, Richard Harrison, KB5WZI

# 1064. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 19:28:49 UTC
From: fractenna@aol.com
Message-ID: <20041021152849.26483.00003024@mb-m07.aol.com>
Source record: 87857

>I think this Fractenna guy is ... ? ... or something. He managed to argue
>here with everyone who asked him questions.
>
>Now, does he really represent Fractal Antenna Systems?
>http://www.fractalantenna.com/
>All the patents mentioned on this Website have single author: Nathan Cohen.
>
>If that's him and he makes all this noise on behalf of his company (pretty
>unrealistic assumption anyway) ... this is not a good way to market
>innovations, be it fractal antennas or anything.
>
>They may be good innovations then, just hindered by his approach.
>
>Andrey
>
>PS: If someone has commercial request for Antenna design, I can help too - I
>do it for living. No fractals, just whips, patches, dipoles, loops, arrays -
>everything from the classic books. I am an older guy. And of course,
>matching, tuning, conforming and any sorts of customization. I have several
>patents too, though I do not think of them as anything special.
>
>
>--
>Andrey Gleener R&D Services Ltd.
>4775 Gilpin Crt. Burnaby
>BC V5G 3A1
>Tel: 604 844 7578
>EMail: a8421@intergate.bc.ca

Yup. Just what I expected.

Get the competitor nonsense off the NG. It's interference of business.

I hate to be right...

Chip N1IR

# 1065. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 19:30:22 UTC
From: fractenna@aol.com
Message-ID: <20041021153022.26483.00003025@mb-m07.aol.com>
Source record: 87858

>European company is under the same conditions (and it turns out that they
>have
>been following these exchanges).
>A

I would also be paranoid if I were them:-)

Thanks for building up the data base though.

73,
Chip N1IR

# 1066. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 19:44:10 UTC
From: fractenna@aol.com
Message-ID: <20041021154410.26483.00003027@mb-m07.aol.com>
Source record: 87860

Andrey said:

>Fractal antennas ... turned out to be useless. That's how I understand it.
>It is not a myth, as someone here said it. Drawing "fractal dipole" is shown
>in "Antennas for all applications" - there is such a book. It,
>anecdotically, does not do you much of anything.
>Looks fancy, that's it.

>There were bunch of articles promising miracles, but it did not work
>according to the promises, otherwise we would hear about it, see them
>around.

>Andrey

and later....

>If that's him and he makes all this noise on behalf of his company (pretty
>unrealistic assumption anyway) ... this is not a good way to market
>innovations, be it fractal antennas or anything.
>
>They may be good innovations then, just hindered by his approach.
>
>Andrey
>
>PS: If someone has commercial request for Antenna design, I can help too - I
>do it for living. No fractals, just whips, patches, dipoles, loops, arrays -
>everything from the classic books. I am an older guy. And of course,
>matching, tuning, conforming and any sorts of customization. I have several
>patents too, though I do not think of them as anything special.
>
>
>--
>Andrey Gleener R&D Services Ltd.
>4775 Gilpin Crt. Burnaby
>BC V5G 3A1
>Tel: 604 844 7578
>EMail: a8421@intergate.bc.ca
>

Andrey, I have long noticed that having a competitor as a source of
non-factual comment is the norm in this industry, You just happened to get
caught...

Ah yes, the antenna industry: one of the few business fields without a trade
organization--ever wonder why?

73,
Chip N1IR

# 1067. Re: Gain per unit length of boom

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 20:05:45 UTC
From: "aunwin@insightbb.com"
Message-ID: <tEUdd.167111$He1.55962@attbi_s01>
Source record: 87862

"Chuck" <wa7rai@raibeam.com> wrote in message
news:fVSdd.9064$6P5.7971@okepread02...
>
> aunwin@insightbb.com <aunwin@insightbb.com@insightbb.com> wrote in message
> news:bMDdd.293802$3l3.275124@attbi_s03...
>
> > "Chuck" <wa7rai@raibeam.com> wrote in message
> > news:XrBdd.8254$6P5.7645@okepread02...
> > snip.
>
> > > I'm not sure if I follow this correctly...
> > > please elaborate further.
> > >
> >
> >
> > Certainly
> > To attain maximum gain per unit length the model dimensions
> > were all variables as was the number of elements. Not only
> > was the driven element current often less than another element in the
array
> > it was sometimes found that the maximum current element required a
diameter
> > of a few thousanths that was not sufficient to carry 1Kw.!
> > Obviously the gain attained was over ruled by the inability of the
element
> > to meet operational requirements.
> > I might add that I use fibre fishing rods for my antennas where I can
apply
> > the correct
> > wire diameters ( or aluminum foil) to an array without being encumbered
by
> > mechanical restrictions.
> > This removes me from the normal restrictions applied to antennas where
> > element diameter
> > is pre-controlled for mechanical reasons which often conflict with
> > scientific requirements
> > The above statement does conflicts with your assesment stated above
> > regarding critical coupling
> > but this is what I found and I will leave it at that
> > Regards
> > Art.
>
> Hi Art,
>

> Ok, I'm always open minded to learn
> something new...

Wow,,,..... there are not many people around who could say that !.
Since 99.999% of things presented as new are incorrect most experts
have determined that the odds favor them if they label EVERYTHING
new as in error. If something comes along that is really new they always
have the comment ' I knew about that a long while ago" to fall back on.

>
> I'd like to establish a few things, though.
>
> First of all, what modeling program are
> you using?

Beasely AOP
This is the professional version that has more than enough segments
and variable dimensions available to lesson the chances of human input
errors
plus to handle elements that were in close proximetry to each other,
together
with 'Sommerfield ground' handling capabilities.

>
> Is your empirical data consistent with
> the models?
Not measured, my thought were that NEC would always
be closer than field measurements generated by an amateur.
>
> How are you ascertaining your empirical
> data?
>
> How are you determining the current
> amplitudes: By model? Or empirically?

By model,
The program provides % of max current at every segment,
phase and all that good stuff

>
> And what are the machinations that
> demand ultra-thin wires to establish
> the gain?

Go for 80 % gain and the rest (20% ) for swr
Added half a dozen elements
All dimensions variable except boom length and perfect ground height
Remove one element at a time until max gain point is obvious
Note all dimensions are kept variable at all times.
>
> You can email me if you care to not
> discuss these things in an open forum.

Not necessary, This is the very reason I posted in the first place !
The program shows that the normal 2 element is not the optimum
in that a polygon of vectors beats a triangle of vectors.
At the same time with added elements you get diminishing returns in std and
conventional forms.
The program showed that 1 to 1.5 dbi was available over the standard
2 element on the same length boom.if one could overcome mechanical
restraints.
(I was comparing to a Beasely example of what gain could be attained for two
elements on a 7 foot boom)
Now that is not the end of the experiment as I cannot verify the accuracy of
the program,
because I did not write it, and I certainly cannot say that my modelling
aproach is
without error since that is what many 'experts' point to if they don't like
the results.
It was for that reason I asked if any similar data had been made available
for boom length
by reputable programmers and antenna 'experts' for comparison purposes ., If
these initial
results were quoted as accurrate there would be howls from all the resident
antenna ' experts"
and I would immediately be placed in the six foot hole that they have been
trying to put
you in for the last eight years

Art

>
> 73, de Chuck, WA7RAI
> <wa7rai at cox dot net>
>
>
>
>

# 1068. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 20:19:00 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <cl9607$4lf$1@news.service.uci.edu>
Source record: 87863

Tom Donaly wrote:

> Jim Kelley wrote:

> Keep trying, Jim.
> 73,
> Tom Donaly, KA6RUH

To what end? It's not a controversial issue.

73, Jim AC6XG

# 1069. Re: Gain per unit length of boom

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 20:50:35 UTC
From: k3bu@aol.comNoUsama
Message-ID: <20041021165035.26518.00002696@mb-m03.aol.com>
Source record: 87864

>Another was from the
>Central States VHF Society and gives results of their 2004 gain
>comparisons of many different antennas. Gain of these versus boom length
>looks very ragged.
>
>Best regards, Richard Harrison, KB5WZI
>

Gain vs. boom length makes sense only when comparing or tracking the same antenna design i.e. Yagi with multiple elements. One can design lousy antenna on a long boom.

Jim Lawson, W2PV was one who after some modeling showed that gain in the properly designed antenna is roughly proportional to the boom length rather than to number of elements. Some manufacturers "beefed up" their antennas by sticking more elements on the same boom claiming better performance.

Yuri, K3BU.us

# 1070. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 21:06:36 UTC
From: John Smith <kd5yikes@mindspring.com>
Message-ID: <wxVdd.3628$KJ6.2791@newsread1.news.pas.earthlink.net>
Source record: 87865

"Andrey" <a8421@intergate.bc.ca> wrote in message
news:10ng2hq6opkiq95@corp.supernews.com...
>I think this Fractenna guy is ... ? ... or something. He managed to argue
> here with everyone who asked him questions.
>
> Now, does he really represent Fractal Antenna Systems?
> http://www.fractalantenna.com/
> All the patents mentioned on this Website have single author: Nathan
> Cohen.
>
> If that's him and he makes all this noise on behalf of his company (pretty
> unrealistic assumption anyway) ... this is not a good way to market
> innovations, be it fractal antennas or anything.

Guess what Andrey... that company was founded by Nathan Cohen. And Fractenna
has been signing his posts as Chip, N1IR. An ARRL call sign search turns up

COHEN, NATHAN L, N1IR (Extra)
(address withheld)

So I guess you're right. He has a vested interest in arguing for fractal
antennas, yes?

John

# 1071. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 21:16:21 UTC
From: John Smith <kd5yikes@mindspring.com>
Message-ID: <FGVdd.3630$KJ6.2503@newsread1.news.pas.earthlink.net>
Source record: 87866

"Fractenna" <fractenna@aol.com> wrote in message
news:20041021143237.25434.00002566@mb-m04.aol.com...
> >Sheesh, how stubborn/bull-headed are you??? If my customers had to go
> >thru
>>this much to get info, I would have closed down years ago.
>
> I presume your customers have the advantage in that you identify yourself
> to
> them, Andrew.
>
> I have no idea who you are.
>
> As I said, drop me a line. I've already gone the extra mile.
>
> Best wishes,
> Chip N1IR

And when did you fully identify YOURSELF, Chip? Were we supposed to look on your Fractal Antenna Systems Web site? From that site:

"Fractal Antenna Systems, Inc. was founded in 1995 by Nathan Cohen, now a recently retired Boston University telecommunications professor and radio astronomer."

And from the ARRL call sign server:

COHEN, NATHAN L, N1IR (Extra)

# 1072. Re: Gain per unit length of boom

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 21:35:09 UTC
From: "aunwin@insightbb.com"
Message-ID: <hYVdd.167587$He1.61904@attbi_s01>
Source record: 87867

Yes but I believe that the early computorisationd he used was based first on
mechenical designed elements which were then imputted.He did not mess with
the element diameters after that.As an aside if you densly populated a boom
with elements many are put off by the low impedance being totaslly unaware
that an additional reflector an up the input impedance back again......
another example of what coupling can do for antennas
Art
"Yuri Blanarovich" <k3bu@aol.comNoUsama> wrote in message
news:20041021165035.26518.00002696@mb-m03.aol.com...
> >Another was from the
> >Central States VHF Society and gives results of their 2004 gain
> >comparisons of many different antennas. Gain of these versus boom length
> >looks very ragged.
> >
> >Best regards, Richard Harrison, KB5WZI
> >
>
>
> Gain vs. boom length makes sense only when comparing or tracking the same
> antenna design i.e. Yagi with multiple elements. One can design lousy
antenna
> on a long boom.
>
> Jim Lawson, W2PV was one who after some modeling showed that gain in the
> properly designed antenna is roughly proportional to the boom length
rather
> than to number of elements. Some manufacturers "beefed up" their antennas
by
> sticking more elements on the same boom claiming better performance.
>
> Yuri, K3BU.us
>

# 1073. Re: WiMAX 802.16a specification

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 21:57:11 UTC
From: Barb McBarb <Eh_NotReally_@HotMail.com>
Message-ID: <TgWdd.4871$U33.14190686@news.sisna.com>
Source record: 87868

"Richard Clark"
> If you want to share the same resource
> with 33 times more customers, you have
> to accept 3% the bandwidth.

Excellent point.

Of course, to start, they could put up one site and let it evolve from there. 56Mbps / 33 is still 1.7 Mbps (perfectly acceptable). Even 333 clients is still much better than dial-up. Also, those 333 clients probably have other things to do beside 100% downloading music and p0rn, and so you can add a huge (or 1/huge) duty-cycle factor (worse at prime time). In other words, one 56Mbps access point is capable of serving MANY clients (a wireless MAN). The future dividing into smaller cells is a nice bonus that can be paid for with cash already earned from the first installation. Thus Wi-Max is going to be ~huge~ because the finances are incredibly good (waaay better than cell phone since the sites are going to be soooooooo much cheaper, one or two orders of magnitude cheaper, a guess).

BTW, if the 'last mile' is such a big problem, then how come the Cable TV companies are so damn rich? Duh. Run the damn optical fibres and 'clean up' the whole market for fixed access. Nothing beats optical (so far).

Didja see the 'interesting tidbit' about non-HF 'BPL' ? Sounds much nicer than the HF-crap system.

# 1074. Re: (OT) BPL Alternative

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 22:01:31 UTC
From: Barb McBarb <Eh_NotReally_@HotMail.com>
Message-ID: <XkWdd.4872$6F2.13931592@news.sisna.com>
Source record: 87869

"Jim"
> Why doesn't the FCC 'suggest' that cell phone and
> PCS companies install some type of WiFi node at
> every cell site in the country?

It's called Wi-Max (IEEE 802.16a) - it will have the range to do as you suggest and YES THEY WILL do exactly that without being asked by FCC. They're probably biting their nails waiting for Wi-Max to be 'actually available' as opposed to 'coming soon'. Probably two years - it'll move ~very fast~ once it is started.

Wi-Fi doesn't have the range unless the user installs a very high gain antenna. Some cities are installing Wi-Fi into (almost) every lamp post.

# 1075. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 22:19:04 UTC
From: Andrey <a8421@intergate.bc.ca>
Message-ID: <10ngd3gotedoc8b@corp.supernews.com>
Source record: 87870

Wow! Together we strong!

"John Smith" <kd5yikes@mindspring.com> wrote in message
news:wxVdd.3628$KJ6.2791@newsread1.news.pas.earthlink.net...
>
> "Andrey" <a8421@intergate.bc.ca> wrote in message
> news:10ng2hq6opkiq95@corp.supernews.com...
> >I think this Fractenna guy is ... ? ... or something. He managed to argue
> > here with everyone who asked him questions.
> >
> > Now, does he really represent Fractal Antenna Systems?
> > http://www.fractalantenna.com/
> > All the patents mentioned on this Website have single author: Nathan
> > Cohen.
> >
> > If that's him and he makes all this noise on behalf of his company
(pretty
> > unrealistic assumption anyway) ... this is not a good way to market
> > innovations, be it fractal antennas or anything.
>
>
> Guess what Andrey... that company was founded by Nathan Cohen. And
Fractenna
> has been signing his posts as Chip, N1IR. An ARRL call sign search turns
up
>
> COHEN, NATHAN L, N1IR (Extra)
> (address withheld)
>
>
>
> So I guess you're right. He has a vested interest in arguing for fractal
> antennas, yes?
>
> John
>
>

# 1076. Re: ARX2B Ringo Ranger

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 22:31:31 UTC
From: w9gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <6NWdd.225660$wV.134835@attbi_s54>
Source record: 87771

"Crazy George" <muNnscOh@attSglPobaAl.nMet> wrote in message
news:4177d869_1@news1.prserv.net...
> Randy:
>
> I noticed nobody answered question 1.
>
> When the original Ringo was introduced, performance reports were all over
> the map.
> Some worked fantastically well, others fantastically poorly. It was
> finally discovered the
> difference was due to mast and feedline radiation. Sometimes the lengths
> were right to radiate
> well, other times, the antenna radiation was canceled by unwanted from the
> support and feed. So, the radial kit was added. Four radials just over a
> quarter wave
> (20 inches seems to work well), but I don't recall the exact position on
> the antenna.
> Just below the feedpoint seems right, but I defer to CushCraft if you can
> get the
> location from the Ranger II manual.
> --
> Crazy George
>

CG & Randy -

Correct about the Ringo and original Ringo Ranger performance reports --
some lamented that it was the best dummy load Cushcraft ever built !
I liked mine, and actually used a Ringo Ranger at 200 feet hung upside down
(for proper radiation pattern) for a repeater's transmitting antenna in
1976 - with great results. We replaced it 2 years later -- with a heavy
duty commercial unit (that could take the wind abuse).

The Ranger II has a coax of specific length between the radial ring and
Ranger -- so that the distance of the radials is correct. This is covered in
the Ranger II manual.
http://www.cushcraft.com/support/pdf/951290.pdf

So, you have a standard Ringo Ranger and you can purchase the parts from
Cushcraft - IF you desire to upgrade it to the Ranger II model !!

Greg
w9gb

# 1077. Re: Tower Help 50 ft Rohn

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 22:45:25 UTC
From: kelly@dvol.com
Message-ID: <d22b54c3.0410211445.3c7e8093@posting.google.com>
Source record: 87772

yoyo <yoyo@yahoo.com> wrote in message
news:<MEEdd.47403$xW2.34813@fe45.usenetserver.com>...
> Brian Kelly wrote:
> > yoyo <yoyo@yahoo.com> wrote in message
news:<NZxdd.42845$_U4.14192@fe47.usenetserver.com>...
> >
> >>I have been given a 50 ft Rohn tower (galvanized).
> >>
> >>Problem is, I have to get it down. and I have a couple questions.
> >>
> >>Weight of each section?
> >
> >
> > Depends on which type Rohn tower sections are used. Hams generally use
> > 25G or 45G and occasionally 55G.
> >
> > http://www.rohnnet.com/ROHNNET/rohnnet2004/html2004/index.html
> >
> > http://www.antennasystems.com/towers.html#ROHN%2025G
> >
> >
> >>estimate of a resonable charge to have someone do it for me?
> >
> >
> > $50/hr. for a semi-pro (part-timer) with a gin pole, the tools and the
> > experience to do it right safely.
> >
> >
> >>I don't
> >>like climbing
> >
> >
> > Neither does anybody else!
> >
> >
> >>Is it worth paying 160 bucks to rent a 50 ft cherry picker to do it?
> >
> >
> > I wouldn't want to take a tower apart from a bucket, it would be very
> > awkward at best and possibly dangerous.
> >
> > If I were in your position I'd get in touch with a ham in your area
> > who knows his way around towers and get him involved.
> >

> >
> >>Thanks
> >>
> >>Jonathan
> >>KB8PFA
> >
> >
> > w3rv
>
> I'm not exactly sure of the type 25 45 etc. Originally it was a 60 ft
> dispatch tower for a towing service. They moved it once and it became a
> 50 ft. both applications the tower was bracketet to a building about 25
> ft up. Is there a way to determine the tower type?

Check the detail dimensions of the center-to-center distances between
the legs given in the links.

20G = 12.5" CC with 7 horizontal elements
25G = 12.5" CC with 8 horizontal elements
45G = 15.75" CC
55G = 18" CC

> I thougt it would be relatively easy to do this from a bucket.. Come
> along side, unbolt it. then go above and lower it with a rope?

It's not a simple disassemble and drop process. 99% of the time the
sections have to be jacked apart often via considerable force due to
misalignment and corrosion effects. Particularly if the tower has been
used for a number of years as it has in your case.

At the instant the topmost section finally pops loose from the next
section down you'd have an unmanageable 10 foot long pile of steel by
it's bottom end wavering in the wind over you in the bucket. NO
THANKS! And it gets worse if it's an R45/55G tower with it's much
heavier sections . . etc.

The normal procedure is one man up the tower and belted in doing the
wrenches and the jacking while the section being removed is tensioned
upward via a gin pole (portable crane, Google it) controlled by his
helper on the ground. Who lowers the section to the ground after it's
off the the tower.

>
> Jon

w3rv

# 1078. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 22:48:31 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41783adc_4@127.0.0.1>
Source record: 87773

Tom Donaly wrote:
> Who said anything about a circuit model?

I'm going to present an example, step by step. Please contribute
something technical in response.

It's a simple lossless quarter-wave matching section example.

------50 ohm feedline---+---1/4WL 600 ohm feedline---7200 ohm load
Pfor1=100w--> Pfor2=352w--> 100w
<--Pref1=0w <--Pref2=252w
Vfor1=70.7v--> Vfor2=460v--> Vload=849v
<--Vref1=0v <--Vref2=389v
Ifor1=1.414A--> Ifor2=0.766A--> Iload=0.118A
<--Iref1=0A <--Iref2=0.648A

Vref2 is 180 degrees out of phase with Vfor2 and thus they subtract.

Iref2 is in phase with Ifor2 and thus they add.

The impedance at '+' is (Vfor2-Vref2)/(Ifor2+Ifor1)

The impedance at '+' is (460v-389v)/(0.766A+0.648A) = 70.7V/1.414A = 50 ohms

Note that the impedance seen at the match point is:

Vfor1/Ifor1 = (Vfor2-Vref2)/(Ifor2+Iref2)

So Tom, do you find anything wrong with this network analysis? If so,
please be technically specific. (Sorry, your feelings don't matter.)
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

# 1079. Re: Tower Help 50 ft Rohn

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 23:05:01 UTC
From: Lee Hopper <leehopp@centurytel.net>
Message-ID: <NNednd PBqp073eXcRVn-qw@centurytel.net>
Source record: 87774

yoyo wrote:
> I have been given a 50 ft Rohn tower (galvanized).
Ever read the Rhon ad in QST? The one that warns you about climbing used towers that may not be in very good shape? It used to be in the back of the magazine and was really not an ad, but an FYI on the dangers of taking down a tower. Partly in their own interest, no doubt, related to potential lawsuits.

73 - Lee H
Wishing he had a tower...

# 1080. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 23:37:35 UTC
From: Le plume de ma taunt <CrazyMan@HotMail.com>
Message-ID: <_KXdd.4992$Pq5.14989383@news.sisna.com>
Source record: 87776

The dingbat wants your ID so that he can send you a laughable (but annoying) threatening legaleze mumbo-jumbo e-mail. It is much more relaxing to taunt the lunacy from a slightly more annonymous position.

The dingbat has one valid point. There are nearly infinitely more 'fractal' shapes than simple shapes. This means, as he says, that the solution space is vastly increased by using fractal-shaped antennas to provide some weird combination of parameters.

What he won't acknowledge is that there are *infinitely again* more non-fractal squiggly shapes than pure fractal shapes (turtles upon turtles all the way down). Therefore, his patents are apparently worthless because, even if there were some applications that happened to 'allow' a fractal antenna solution, anyone could take the fractal antenna solution and randomize it a bit (loop until better) to make it slightly nonfractal (and better at the same time!) and off you go.

It must be annoying to have spent the entire bundle on this and only now realize that it is absolutely trivial to walk around the patents.

That would be if, big if, anyone cared to.

I hereby place all slightly non-fractal squiggly antennas into the public domain.

# 1081. Re: help with partial reception

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 23:45:56 UTC
From: hrhofmann@att.net
Message-ID: <deadaa59.0410211545.1862c742@posting.google.com>
Source record: 87775
Cross-posted to: sci.electronics.repair,rec.radio.amateur.antenna

"Tam/WB2TT" <t-tammaru@c0mca$t.net> wrote in message
news:<csmdnaiiSrNtRurcRVn-iw@comcast.com>...
> "WB2JKX" <mycall-N0SPAM@arrl.net> wrote in message
> news:Gfwdd.14686$OD2.2007@bgtnsc05-news.ops.worldnet.att.net...
> >
> > mediancat <bertiaux@yahoo.com> wrote in message
> > news:546afb93.0410200627.43fd74f8@posting.google.com...
> >> >
> >> > Although you've provided a good bit of detail, some questions still
> arise:
> >> > just 'how' do you "touch the coax to the connection?" Are you touching
> just
> >> > the inner conductor to the outside of the connector, or the inner
> conductor
> >> > to the inner connection on the connector (not allowing the ground to
> make
> >> > contact)? Are you touching the coax connector on the TV at
> all...perhaps
> >> > instead the 300 ohm (if any) connectors?
> >>
> >> i believe i am touching both pieces, ever so slightly. i tried one of
> >> the other cables in the scheme that has a longer inner conductor - to
> >> allow the connection of that alone, but it didn't improve the picture.
> >> perhaps i really am only touching the gound part of the coax to the
> >> ground part of the tv connector. that would explain why when i fully
> >> engage the connector, the signal gets crappy. i will try some other
> >> combinations to see if i can clarify what i am doing.
> >>
> >
> > It sounds like you no longer have a good circuit up to your antenna, and
> > by
> > just touching one conductor to the TV antenna connector your downlead is
> > acting like a "longwire antenna", which gives some signal. When it is
> > fully
> > connected, the shield is grounded and now little if any signal reaches the
> > TV.
> >
> This sounds like the most plausible explanation, especially since it used to
> work. I would look for a bad connection at the antenna, or an F connector.
>
> Tam/WB2TT

The poster needs to find a ham radio operator who lives nearby who can help him. Most hams have a reasonably good understanding of antennas and could probably find the problem in 5 minutes.

H. R. (Bob) Hofmann

# 1082. Re: (OT) BPL Alternative

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-21 23:57:16 UTC
From: Tom Ring <news0000@taring.org>
Message-ID: <41784cdd$0$74186$39cecf19@news.twtelecom.net>
Source record: 87777

Jim wrote:

> would use DSL or cable modem (if available)? If WiFi was available
> everywhere, how much would it have to cost in order to even break even?
>
> Jim
> N8EE

About 15 dollars a month is what they are charging in Chaska MN, and that will allow them to maintain the current system as well as store a bit of cash for new equipment when they need it. The customer base was over 2000 last I knew, and 2 years ahead of what they expected. The charge includes everything including customer premise equipment.

They are using 802.11b, and each customer gets approximately 1.5Mbps throughput, except for one of their coverage areas which they are having a problem with. That one still gets something like 500Kbps, which isn't bad. The billing is done through the city water bill, so it's quite convenient, I would guess.

The equipment is Tropos, which we examined, and it is about as bulletproof as you can get. They (Tropos) use a Loctite type of substance on the 6dB gain omnis at the factory, so they don't leak or come loose. Seems excessive on an N connector, but definately thorough. They have heaters in them to keep them warm enough in the subzero winters. They can be mounted antennas up, or antennas down by reversing the outside case. And a nice touch is they use a sandwich plug for power that plugs in at the light sensor on a streetlight. Takes about as long to get the bucket truck in place as it does to mount and get it running. They need virtually no configuration on any individual unit. Runs as a mesh network; in their case, multiple mesh networks.

And nope, I don't live there, but my company visited to see how they did it, etc. Don't have any affiliation with Tropos, either. We use the Motorola Canopy Product.

Their web address is www.chaska.net

tom
K0TAR

# 1083. Re: Gain per unit length of boom

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-22 00:16:08 UTC
From: Tom Ring <news0000@taring.org>
Message-ID: <41785149$0$74187$39cecf19@news.twtelecom.net>
Source record: 87778

aunwin@insightbb.com wrote:

> My ARRL books go back a decade or more
> and the graph showing gain per boom length
> has several curves based on different measurements
> e.t.c. Has a graph been made based solely on NEC
> program findings over say a perfect ground and at a uniform height?
> Art
>
>

For VHF/UHF yagis in free space -

WA2PHW Gain Figure of Merit

G = 10 log (5.4075 B + 4.25) for B GT 1

Where G is gain in dBd and B is boomlength in wavelengths.

This is from a database of over 100 VHF/UHF yagis compiled in the early 90's. These are all real buildable yagis, and the antenna range numbers closely agree with the computer models. The numbers were heavily influenced by the 10 to 40 element K1FO series. Thanks again Steve.

Note that this predicts a zero length yagi should have about 6 dBd gain. Any ideas on why it intercepts there?

tom
K0TAR

# 1084. Re: Fractenna lashes out at hams using BPL

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-22 00:19:47 UTC
From: Tom Ring <news0000@taring.org>
Message-ID: <41785223$0$74187$39cecf19@news.twtelecom.net>
Source record: 87779

Richard Clark wrote:

>
> And you are Shirley Temple? No doubt I stepped on your fat icons
> pudgy toes and those oinkers squeeled Ossama. :-)
>
> 73's
> Richard Clark, KB7QHC

I _do_ have her hair.

tom
K0TAR

## 1085. Re: (OT) BPL Alternative

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-22 00:29:56 UTC
From: Blob McBlob <McBlob_NOT@HotMail.com>
Message-ID: <3wYdd.5681$E06.15648884@news.sisna.com>
Source record: 87781

"Barb McBarb"
> Some cities are installing Wi-Fi into
> (almost) every lamp post.

"Tom Ring"
> ...Chaska MN...

Chaska on CNN.com:
http://edition.cnn.com/2004/TECH/internet/10/18/wireless.city/index.html

# 1086. Re: Gain per unit length of boom

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-22 00:34:36 UTC
From: "aunwin@insightbb.com"
Message-ID: <wAYdd.406148$mD.70164@attbi_s02>
Source record: 87780

Tom, where is the link that goes with this info? It doesn't mean anything as
it stands
Art

<news0000@taring.org> wrote in message
news:41785149$0$74187$39cecf19@news.twtelecom.net...
> aunwin@insightbb.com wrote:
>
> > My ARRL books go back a decade or more
> > and the graph showing gain per boom length
> > has several curves based on different measurements
> > e.t.c. Has a graph been made based solely on NEC
> > program findings over say a perfect ground and at a uniform height?
> > Art
> >
> >
>
> For VHF/UHF yagis in free space -
>
> WA2PHW Gain Figure of Merit
>
> G = 10 log (5.4075 B + 4.25) for B GT 1
>
> Where G is gain in dBd and B is boomlength in wavelengths.
>
> This is from a database of over 100 VHF/UHF yagis compiled in the early
> 90's. These are all real buildable yagis, and the antenna range numbers
> closely agree with the computer models. The numbers were heavily
> influenced by the 10 to 40 element K1FO series. Thanks again Steve.
>
> Note that this predicts a zero length yagi should have about 6 dBd gain.
> Any ideas on why it intercepts there?
>
> tom
> K0TAR

# 1087. Re: Gain per unit length of boom

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-22 01:09:05 UTC
From: Tom Ring <news0000@taring.org>
Message-ID: <41785db2$0$91004$39cecf19@news.twtelecom.net>
Source record: 87782

aunwin@insightbb.com wrote:

> Tom, where is the link that goes with this info? It doesn't mean anything as
> it stands
> Art
>

What? Of course it means something. It's an equation along with the
constraints.

Run any current decent 1 wavelength, or longer, yagi in your favorite
modeling program, and it will tell you whether you are near the gain you
should get for a well behaved yagi. Or it might tell you the model
isn't very accurate. It works well to test known designs against
unknown quality programs without having the known good modeling program
or test range.

If you want the database it was derived from, that might be arranged,
but it is in from a database program that Microsoft Office won't read,
so you might be out of luck there.

tom
K0TAR

# 1088. Re: Is lighting nuts?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-22 01:17:11 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <9mngn05vt5ejhq0ajobg4kkctebvjncrmn@4ax.com>
Source record: 87783

On 21 Oct 2004 10:49:37 EDT, raiar@bbs.galilei.com.nospam (Gary V. Deutschmann, Sr.) wrote:

>As an aside. A tree outside my mothers home was struck by lighting.
>Split that sucker almost all the way to the ground. Dad bolted it
>back together with threaded rods and it survived, it's still living
>too.

Hi Gary,

Sounds like this was from the 1950s era when fathers were omnipotent.

73's
Richard Clark, KB7QHC

## 1089. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-22 01:27:13 UTC
From: fractenna@aol.com
Message-ID: <20041021212713.07582.00002232@mb-m11.aol.com>
Source record: 87784

>rom: "Le plume de ma taunt" CrazyMan@HotMail.com
>Date: 10/21/2004 7:37 PM Eastern

>I hereby place all slightly non-fractal squiggly antennas into the public
>domain.

The poster's screenname says it all...

73,
Chip N1IR

# 1090. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-22 01:40:29 UTC
From: fractenna@aol.com
Message-ID: <20041021214029.07582.00002233@mb-m11.aol.com>
Source record: 87785

>> So I guess you're right. He has a vested interest in arguing for fractal
>> antennas, yes?
>>
>> John

Hi "John",

I have a vested interest in the accuracy of my comments to Andrey, which he solicited.

What's YOUR interest, :"John"?

No one is selling fractal antennas on this NG, John.

My motivations were to take the commercial stuff off-line (hardly a hidden agenda) and to counter hi targeted statements with some relevant fact and query on his supposed sources. his was apparently to introduce commercial interference.

I imagine that some person on this NG with his head in the sand doesn't know who I am at this point--but I doubt it.

I am amused, however, to have you think that I am so unwilling to 'fess up to my background. See, for example:
www.qrz.com

Do a look-up on N1IR. That's pretty transparent.

Are you expecting me to feel put-out in some way by these histrionics?:-)

Anyway, don't do this purely for my enjoyment:-)

73,
Chip N1IR

# 1091. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-22 01:41:47 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <ldogn01rjg12kbssusq8ffkraa8qc8rere@4ax.com>
Source record: 87786

On Thu, 21 Oct 2004 21:16:21 GMT, "John Smith"
<kd5yikes@mindspring.com> wrote:

>"Fractal Antenna Systems, Inc. was founded in 1995 by Nathan Cohen, now a
>recently retired Boston University telecommunications professor and radio
>astronomer."

Hi John,

Your information is incomplete. The records at that time described it as a small extension campus largely devoted to Home Economics studies. There could be some confusion about just who you have researched however. Some years ago we had at least half a dozen "personalities" all writing from this account or claiming to be different individuals (or the same individual, it was hard to tell).

One common modus operandi was in (their/his/her) attempting to build a data base by cultivating personal and business information in this group, then sending harassing correspondence. If there is any doubt about who/what/when/why the archives are choked with this Soap Opera. Simply Google search the newsgroups with terms: "suit," "our lawyers," "your lawyers," "cease," "copyright infringement," and the ever famous "protected by patents pending." Correlate these terms to recognizable authors and all should come into resolution. :-)

Boy, I've met some goofballs during my days with the Voter's Drive. Makes this stuff seem like a tired retread - wait! It IS a tired retread.

73's
Richard Clark, KB7QHC

## 1092. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-22 01:45:22 UTC
From: This is a 'screenname' <AndThisIsAnEmailAddress@HotMail.com>
Message-ID: <RCZdd.8315$iZ7.18793572@news.sisna.com>
Source record: 87787

>> [F]rom: "Le plume de ma taunt"
>> CrazyMan@HotMail.com

"Fractenna"
> The poster's screenname says it all...

I presume that you meant 'e-mail address' vice 'screen name' (assuming that you aimed at the obvious target, and missed).

The screen name ("Le plume de ma taunt") is actually hilarious - I hope that the humour wasn't wasted on you. 'taunt' vice 'tante' - get it? Ah, forget it.

Now, go away, or I shall taunt you a third time...

# 1093. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-22 01:48:56 UTC
From: fractenna@aol.com
Message-ID: <20041021214856.07582.00002235@mb-m11.aol.com>
Source record: 87788

> It IS a tired
>retread.
>
>73's
>Richard Clark, KB7QHC
>

Please ID the "techno-fraud" which you expose in your fractal antenna website--that's your word. And what patents do you claim your amateur web page has manage to render useless? Hmmm:-)?

And what exactly is this early 1800's prior art you allude to that renders fractal antennas as public domain? Perhaps you have a knowledge base which extends before Hertz, and even Maxwell:-)?

I am sure I am not the only one who would share the fascination of details to your claims.

You are not a man short of words; use a few words to flesh it out, kindly.

73,
Chip N1IR

# 1094. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-22 01:51:19 UTC
From: fractenna@aol.com
Message-ID: <20041021215119.07524.00002486@mb-m11.aol.com>
Source record: 87789

>Subject: Re: Fractal Antennas
>From: "This is a 'screenname'" AndThisIsAnEmailAddress@HotMail.com
>Date: 10/21/2004 9:45 PM Eastern Daylight Time
>Message-id: <RCZdd.8315$iZ7.18793572@news.sisna.com>
>
>>> [F]rom: "Le plume de ma taunt"
>>> CrazyMan@HotMail.com
>
>"Fractenna"
>> The poster's screenname says it all...
>
>I presume that you meant 'e-mail address' vice 'screen name' (assuming that
>you aimed at the obvious target, and missed).
>
>The screen name ("Le plume de ma taunt") is actually hilarious - I hope that
>the humour wasn't wasted on you. 'taunt' vice 'tante' - get it? Ah, forget
>it.
>
>Now, go away, or I shall taunt you a third time...
>

Sisna...I'm glad I met 'ya. Good luck to YOU Mr. Bogus:-)

73,
Chip N1IR

## 1095. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-22 01:58:59 UTC
From: Bite Me <OhPuhleese@Hotmail.com>
Message-ID: <yPZdd.9000$_a.19085465@news.sisna.com>
Source record: 87790

"Fractenna" <fractenna@aol.com>
> Sisna...I'm glad I met 'ya.
> Good luck to YOU Mr. Bogus:-)

And *I* have alerted AOL to YOUR antics Sir!

Bwahahahaha...

Ya big twit.

# 1096. Re: WiMAX 802.16a specification

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-22 02:03:37 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <edpgn05oo76p9o20sc9gauolluqdcav78l@4ax.com>
Source record: 87791

On Thu, 21 Oct 2004 18:57:11 -0300, "Barb McBarb"
<Eh_NotReally_@HotMail.com> wrote:

>BTW, if the 'last mile' is such a big problem, then how come the Cable TV
>companies are so damn rich?

Hi Barb,

If they are so damn rich (arguable proposition given how many times
mine has been traded), it was from an investment now 20 years old.

If someone took the plunge and hooked fiber optic to every house in
the city, I am sure they would be damn rich in 20 years too. Problem
is with regulation. It existed then, it doesn't now.

BOTH the democrats AND the republicans walked away from the problem 6
years ago to leave it up to "market forces." This was like tossing
money at street bums to help them sober up. The corporate welfare
state stumbled along content with the status quo, happy to sew up
their constituencies knowing competition had a huge energy well they
had to climb out of to simple enter the market.

However, this also reveals the poverty that exists in the minds of
these welfare queens. They think in terms of their own solutions -
wire to the house (or fiber optic to the house). Not looking any
further than their own preconceived failure, they presume everyone
else will fail similarly. This dinosaur mentality reveals itself in
the BPL "wiring" opportunity. RF will eclipse their Jurassic ideas
and they will demand an "even playing ground" (familiar cry of the
entitlement addict) as the mammals gnawing on their ankle bones start
to work on their haunches.

We need to outsource more boardroom jobs to those with quicker minds
willing to actually work harder to be more productive for less.

73's
Richard Clark, KB7QHC

## 1097. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-22 02:05:41 UTC
From: fractenna@aol.com
Message-ID: <20041021220541.07524.00002489@mb-m11.aol.com>
Source record: 87792

>And *I* have alerted AOL to YOUR antics Sir!
>
>Bwahahahaha...
>
>Ya big twit.

No problem. I've been down this path before; it doesn't work because there's nothing to be alerted to. It does help though, in documenting.

73,
Chip N1IR

# 1098. Re: WiMAX 802.16a specification

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-22 02:07:19 UTC
From: fractenna@aol.com
Message-ID: <20041021220719.07582.00002236@mb-m11.aol.com>
Source record: 87793

>We need to outsource more boardroom jobs to those with quicker minds
>willing to actually work harder to be more productive for less.
>
>73's
>Richard Clark, KB7QHC
>

Hi Richard,

What's YOUR job:-)?

73,
Chip N1IR

# 1099. Re: Gain per unit length of boom

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-22 02:20:28 UTC
From: "aunwin@insightbb.com"
Message-ID: <M7_dd.437153$Fg5.175137@attbi_s53>
Source record: 87794

Tom, let me be direct without being disrespectful What I modelled was a boom length of 7ft for 20 metres and it is an abnormal yagi design which does not fit what you are offering. I do not believe that NEC programs vary too much on standard forms but when using tightly clustered elements on a short boom lots of other things come in to play, and one has to be sure that the program is all encompassing as designed to handle ALL abnormalities. Obviously what you have offerred has serious problems on short yagi's let alone abnormal design yagi's. It is my belief that because an element reradiates
a portion of the RF that it received, extra elements that are closely clustered can provide increased gain. Yes. my model
confirmed that but I was hoping that experts could point to a mathematical analysis of max gain per unit length that was exacting in gain provided and not "close enough" and not marred by other things that can occur by measuring in the field.
It would appear from the responses that efforts in this area has not been undertaken and which I will have to live with that.
But I do thank you for your offering
Art

"Tom Ring" <news0000@taring.org> wrote in message news:41785db2$0$91004$39cecf19@news.twtelecom.net...
> aunwin@insightbb.com wrote:
>
> > Tom, where is the link that goes with this info? It doesn't mean anything as
> > it stands
> > Art
> >
>
> What? Of course it means something. It's an equation along with the
> constraints.
>
> Run any current decent 1 wavelength, or longer, yagi in your favorite
> modeling program, and it will tell you whether you are near the gain you
> should get for a well behaved yagi. Or it might tell you the model
> isn't very accurate. It works well to test known designs against
> unknown quality programs without having the known good modeling program
> or test range.
>
> If you want the database it was derived from, that might be arranged,
> but it is in from a database program that Microsoft Office won't read,
> so you might be out of luck there.
>

> tom
> K0TAR

# 1100. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-22 02:26:35 UTC
From: Ya Big Twit <YaDoughHead@Hotmail.com>
Message-ID: <rd_dd.9658$4N.20104224@news.sisna.com>
Source record: 87795

"Fractenna"
> I've been down this path before; it doesn't work
> because there's nothing to be alerted to.

Yeah, I know. Cuts both ways. But unlike you - I realize when I'm shooting blanks ("Sisna" - puhfreakingleese...). Ya Big Twit.

> It does help though, in documenting.

The N1IR files must be overflowing (<smirk>). Will 'The Stacks' be buried with you when you die, or just recycled (thereby driving down the price of used paper by 40% for six months)?

## 1101. Re: Gain per unit length of boom

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-22 02:38:30 UTC
From: Tom Ring <news0000@taring.org>
Message-ID: <417872a7$0$74186$39cecf19@news.twtelecom.net>
Source record: 87796

aunwin@insightbb.com wrote:

> It would appear from the responses that efforts in this area has not been
> undertaken and which I will have to live with that.
> But I do thank you for your offering
> Art

Sorry, based upon the variability of responses in the group, I thought this was well within the limits. It was considerably closer to being on subject than some that have gone from legitimate questions to raving political nonsense with no one complaining. I won't make this mistake again.

tom
K0TAR

# 1102. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-22 03:40:53 UTC
From: John Smith <kd5yikes@mindspring.com>
Message-ID: <9j%dd.3902$KJ6.570@newsread1.news.pas.earthlink.net>
Source record: 87797

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:ldogn01rjg12kbssusq8ffkraa8qc8rere@4ax.com...
> On Thu, 21 Oct 2004 21:16:21 GMT, "John Smith"
> <kd5yikes@mindspring.com> wrote:
>
>>"Fractal Antenna Systems, Inc. was founded in 1995 by Nathan Cohen, now a
>>recently retired Boston University telecommunications professor and radio
>>astronomer."
>
> Hi John,
>
> Your information is incomplete.

Hi, Richard -

It isn't my information. It came off the Fractal Antenna Systems Web site.

Nevertheless, it doesn't matter any more. I've killfiled him because I
believe he has nothing of value to contribute to this group and is
essentially trolling. This a game to him.

John

# 1103. Re: (OT) BPL Alternative

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-22 04:18:18 UTC
From: Zoran Brlecic <...WA7AA...@get.lost>
Message-ID: <41788A15.2020302@get.lost>
Source record: 87798

Jim wrote:
> There has been some discussion here on the pros and cons of BPL.
>
> I thought I would through in my 2 cents worth...
>
> Why doesn't the FCC 'suggest' that cell phone and PCS companies install some
> type of WiFi node at every cell site in the country?

Well, in FCC's defense, they have been too busy lately acting as the
Christian Taliban morality ministry, so, you know... It's hard work.
Doesn't leave much time for, oh say protecting the legitimate spectrum
users from interference.

73 ... WA7AA

--

Anti-spam measure: look me up on qrz.com if you need to reply directly

## 1104. Help conductive anti ox paste source?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-22 04:55:28 UTC
From: fjx1@aol.comnospam
Message-ID: <20041022005528.04966.00004948@mb-m24.aol.com>
Source record: 87799

I need some of that anti ox conductive paste you use when assembling yagi elements. I live on Long Isalnd. Is it available under some brand name at home depot or electrical supply shops. Don't know what to call it to a non ham.

Tks

fjx1@aol.com

gerry

# 1105. Re: Help conductive anti ox paste source?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-22 05:23:14 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10nh6a3nsi8spb1@corp.supernews.com>
Source record: 87800

Noalox is a popular brand name.

Roy Lewallen, W7EL

Fjx1 wrote:
> I need some of that anti ox conductive paste you use when assembling yagi
> elements. I live on Long Isalnd. Is it available under some brand name at home
> depot or electrical supply shops. Don't know what to call it to a non ham.
>
> Tks
>
>
> fjx1@aol.com
>
> gerry

## 1106. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-22 05:30:00 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <os3hn09keg7a3i2ehb0tdc6od81hhk061d@4ax.com>
Source record: 87801

On Fri, 22 Oct 2004 03:40:53 GMT, "John Smith"
<kd5yikes@mindspring.com> wrote:

>It isn't my information. It came off the Fractal Antenna Systems Web site.

Hi John,

Possibly a mistake of association then. Historically, correspondence
from this account has offered a multiplicity of supposed authors hence
authenticity is dubious at best.

73's
Richard Clark, KB7QHC

## 1107. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-22 07:44:05 UTC
From: fractenna@aol.com
Message-ID: <20041022034405.19211.00003018@mb-m03.aol.com>
Source record: 87802

>Will 'The Stacks' be buried
>with you when you die,

That won't be any time soon. I hiked about 300 miles this year and I look about
20 years younger than my age. I take no medication. So, good luck.

73,
Chip N1IR

# 1108. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-22 07:56:02 UTC
From: fractenna@aol.com
Message-ID: <20041022035602.26518.00002727@mb-m03.aol.com>
Source record: 87803

>Hi John,
>
>Possibly a mistake of association then. Historically, correspondence
>from this account has offered a multiplicity of supposed authors hence
>authenticity is dubious at best.
>
>73's
>Richard Clark, KB7QHC
>
>
>

Hi Richard,

Please ID the "techno-fraud" which you expose in your fractal antenna website--that's your word. And what patents do you claim your amateur web page has managed to render useless? You said this too.Hmmm:-)?

And what exactly is this early 1800's prior art you allude to that renders fractal antennas as public domain? Perhaps you have a knowledge base which extends before Hertz, and even Maxwell:-)?

I am sure I am not the only one who would share the fascination of details to your claims.

You are not a man short of words; use a few words to flesh it out, kindly.

73,
Chip N1IR

>

## 1109. Hy-Gain 18AVT/WB-S

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-22 09:13:44 UTC
From: Denis O' Flynn <ei6hb@eircom.net>
Message-ID: <9b4ed.39783$Z14.14284@news.indigo.ie>
Source record: 87804

Anyone have the dimensions for the 4 top radials for the Hy-Gain 18AVT/WB-S.
I have downloaded the manual but no specs are on it. I assume the
measurements are critical.

Denis EI6HB
ei6hb at eircom.net

## 1110. N8WWM works overtime to prove he is demented

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-22 11:15:20 UTC
From: Steveo <moparholic@hotmail-nospam.com>
Message-ID: <20041022071520.223$Xd_-_@newsreader.com>
Source record: 87805
Cross-posted to:
rec.radio.cb,rec.radio.amateur.policy,rec.radio.scanner,alt.ham-radio.vhf-uhf,rec.radio.amateur.misc,rec.radio.amateur.antenna

N8WWM DOUG ADAIR (Psychiatrist to keyclowns) wrote:
> "U Know Who" <AKC-M{AnonymousKeyboardCowardsMaster}@not-here.com> wrote
> in message news:<3MWdd.16008$sO5.14276@fe1.texas.rr.com>...
> > "Psychiatrist to keyclowns" <keyklonzrnutjobs@yahoo.com> wrote in
> > message news:586e7bbf.0410210949.52af787a@posting.google.com...
> > > BP <bakedpotato@nospam.comm> wrote in message
> > > news:<10ncslj34q5tfde@corp.supernews.com>...
> > >> keyklonzrnutjobs@yahoo.com (Psychiatrist to keyclowns) wrote in
> > >> news:586e7bbf.0410200534.2fd36463@posting.google.com:
> > >>
> > >> (snip)
> > >>
> > >> > Buttmunch, your life is a bluff. I read your bio on the web.
> > >>
> > >>
> > >> Here are some very telling examples of your bio, dougay..
> > >>
> > >> http://tinyurl.com/4hpx4
> > >
> > > Thank you for your post. AKC had issued subliminal commands through
> > > your implanted chip, since we wanted new humor. It is always nice to
> > > see how well the chip implants work.
> >
> > You know Doug, considering you need mental help and were ordered to do
> > so by the courts, there is no doubt you believe what you type.
> >
> > BTW, how are the kids?
>
> Hehhe...thank you too. I see the "loop back and repeat the same crap"
> program is properly installed in your chip. Of course, even without a
> chip it is all you can do.
>
Hey Doug, how are the indegency hearings and court ordered shrink
working out for you?

http://tinyurl.com/4p3gs

## 1111. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-22 12:13:35 UTC
From: Ya Big Twit <YaDoughHead@Hotmail.com>
Message-ID: <KP6ed.1$_g3.548897@news.sisna.com>
Source record: 87806

"Fractenna"
> I take no medication.

Ah - then there is the problem.

# 1112. Re: ARRL Propose New License Class & Code-Free HF Access

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-22 13:01:18 UTC
From: Lefty <imho4@lycos.com>
Message-ID: <Xns958A5C76452EAsaybra@216.196.97.142>
Source record: 87807
Cross-posted to: alt.ham-radio.morse,alt.ham-radio.nocode,rec.ham-radio,rec.radio.amateur.antenna

How many realize the ARRL is a business? More "so called" "Hams"
translates directly into hard cash for the good old boys at the ARRL.
How friggin simple can it get!

WA3QNS

(anyone but BUSH!)

"Lloyd Mitchell" <lloydm75@hotmail.com> wrote in
news:X3tPb.32995$2L6.7688@bignews6.bellsouth.net:

> SB QST @ ARL $ARLB003
> ARLB003 ARRL to Propose New Entry-Level License, Code-Free HF Access
>
> ZCZC AG03
> QST de W1AW
> ARRL Bulletin 3 ARLB003
>>From ARRL Headquarters
> Newington CT January 20, 2004
> To all radio amateurs
>
> SB QST ARL ARLB003
> ARLB003 ARRL to Propose New Entry-Level License, Code-Free HF Access
>
> The ARRL will ask the FCC to create a new entry-level Amateur Radio
> license that would include HF phone privileges without requiring a
> Morse code test. The League also will propose consolidating all
> current licensees into three classes, retaining the Element 1 Morse
> requirement--now 5 WPM-only for the highest class. The ARRL Board of
> Directors overwhelmingly approved the plan January 16 during its
> Annual Meeting in Windsor, Connecticut. The proposals--developed by
> the ARRL Executive Committee following a Board instruction last
> July--are in response to changes made in Article 25 of the
> international Radio Regulations at World Radiocommunication
> Conference 2003 (WRC-03). They would continue a process of
> streamlining the amateur licensing structure that the FCC began more
> than five years ago but left unfinished in the Amateur Service
> license restructuring Report and Order (WT 98-143) that went into
> effect April 15, 2000.
>
> ''Change in the Amateur Radio Service in the US, especially license
> requirements and even more so when Morse is involved, has always
> been emotional,'' said ARRL First Vice President Joel Harrison, W5ZN,
> in presenting the Executive Committee's recommendations. ''In fact,

> without a doubt, Morse is Amateur Radio's 'religious debate.'''
>
> The entry-level license class--being called ''Novice'' for now--would
> require a 25-question written exam. It would offer limited HF
> CW/data and phone/image privileges on 80, 40, 15 and 10 meters as
> well as VHF and UHF privileges on 6 and 2 meters and on 222-225 and
> 430-450 MHz. Power output would be restricted to 100 W on 80, 40,
> and 15 meters and to 50 W on 10 meters and up.
>
> ''The Board sought to achieve balance in giving new Novice licensees
> the opportunity to sample a wider range of Amateur Radio activity
> than is available to current Technicians while retaining a
> motivation to upgrade,'' said ARRL CEO David Sumner, K1ZZ. Under the
> ARRL plan, current Novice licensees--now the smallest and least
> active group of radio amateurs--would be grandfathered to the new
> entry-level class without further testing.
>
> The middle group of licensees--Technician, Tech Plus (Technician
> with Element 1 credit) and General--would be merged into a new
> General license that also would not require a Morse examination.
> Current Technician and Tech Plus license holders automatically would
> gain current General class privileges without additional testing.
> The current Element 3 General examination would remain in place for
> new applicants.
>
> The Board indicated that it saw no compelling reason to change the
> Amateur Extra class license requirements. The ARRL plan calls on the
> FCC to combine the current Advanced and Amateur Extra class
> licensees into Amateur Extra, because the technical level of the
> exams passed by these licensees is very similar. New applicants for
> Extra would have to pass a 5 WPM Morse code examination, but the
> written exam would stay the same. Sumner said the Board felt that
> the highest level of accomplishment should include basic Morse
> capability. Current Novice, Tech Plus and General licensees would
> receive lifetime 5 WPM Morse credit.
>
> ''This structure provides a true entry-level license with HF
> privileges to promote growth in the Amateur Service,'' Harrison said.
>
> Among other advantages, Sumner said the plan would allow new Novices
> to participate in HF SSB emergency nets on 75 and 40 meters as well
> as on the top 100 kHz of 15 meters. The new license also could get
> another name, Sumner said. ''We're trying to recapture the magic of
> the old Novice license, but in a manner that's appropriate for the
> 21st century.''
>
> The overall proposed ARRL license restructuring plan would more
> smoothly integrate HF spectrum privileges across the three license
> classes and would incorporate the ''Novice refarming'' plan the League
> put forth nearly two years ago in a Petition for Rule Making

> (RM-10413). The FCC has not yet acted on the ARRL plan, which would
> alter current HF subbands.
>
> The ARRL license restructuring design calls for no changes in
> privileges for Extra and General class licensees on 160, 60, 30, 20,
> 17 or 12 meters. Novice licensees would have no access to those
> bands.
>
> See ''ARRL to Propose New Entry-Level License, Code-Free HF Access''
> on the ARRL Web site, www.arrl.org/news/stories/2004/01/19/1/, for
> the specific subband allocations ARRL is proposing for each class.
> NNNN
> /EX
>
>
>

## 1113. Re: Is lighting nuts?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-22 13:17:35 UTC
From: raiar@bbs.galilei.com.nospam
Message-ID: <4179065e.269464281@news.galilei.com>
Source record: 87808

Hi Richard

Now 'that' I have seen a few times.
Probably not to the extent that you have experienced though.

When first out of skewl I took a job as a DJ, before a couple of storms while working in the transmitter room at the tower site, I could hear occasional pops, but never figured out where they were coming from. Thanks for letting me know!

From my new residence I can see several radio and TV towers, I will keep an eye on them just out of curiosity sake.

TTUL - 73+ de Gary - KGZP

## 1114. Re: Is lighting nuts?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-22 13:33:39 UTC
From: raiar@bbs.galilei.com.nospam
Message-ID: <4179096f.270248921@news.galilei.com>
Source record: 87809

Hi Jack

That was probably the cause!

I figured the sink itself was at one ground potential and the faucet at another which caused the arcing.

Of course, the way mom described it, one would think the whole sink was ablaze.
Even back then I thought of possibly a single drop of hot metal (probably from the aerator) and how that is what probably bounced around in the sink sparking all over the place. Like dropped hot metal when your welding goes all over the place.

Speaking of differing ground potentials. I think the wierdest thing I ever saw was when my step-son was taking me through the automated welding section of a body assembly plant for cars.

A line of steel platforms bolted to a steel floor framework, between two of the platforms (about 2 to 3 inches apart) there was an occasional arc that occurred when the machines on each both stopped at the same time.

Don't know if you remember the old vacuum powered windshield wipers that operated independent of each other. Every once in awhile they would be in sync for a few wipes.
When these welders came into sync they hummed really loud and when the sync broke is when the arc would jump between their two stands.

I thought it was interesting!

TTUL
Gary

## 1115. Re: Is lighting nuts?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-22 13:51:40 UTC
From: raiar@bbs.galilei.com.nospam
Message-ID: <41790c25.270942843@news.galilei.com>
Source record: 87810

Hi Richard

Are you insinuating that a tree struck by lightning cannot live after being electrocuted?

Although not logical, since the sap turning to steam is more than likely what split the tree in the first place. The path to ground could have been less than 1/4 inch wide on opposing sides of the tree.

Nonetheless, the tree is still standing. It does have some strange areas of bulging bark where the crack used to be.

I don't remember the exact year of the strike, but it was after 1968 and before 1972 and now this tree is the larger of the pair in moms backyard. It's immune system must have been damaged, because it has suffered from galls ever since shortly after it was split.

Now, as far as bolting trees back together using threaded rods, this is not uncommon at all. The forked maple tree in my own front yard at my St. Louis QTH was bolted together in two places to keep the two trunks from spreading further as the tree grew. It worked!
A cedar tree in my backyard that split during an ice storm was mended the same way at the same QTH. On this tree you can still see a part of some of the rods that were used.

It only takes about 3 to 4 years for the large washer and nut to be covered with bark and depending upon the gap where the rods were placed, they may be visible for decades or covered in short order.

TTUL
Gary

# 1116. Re: Hy-Gain 18AVT/WB-S

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-22 13:54:14 UTC
From: w9gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <ai8ed.229762$wV.82986@attbi_s54>
Source record: 87811

"Denis O' Flynn" <ei6hb@eircom.net> wrote in message
news:9b4ed.39783$Z14.14284@news.indigo.ie...
> Anyone have the dimensions for the 4 top radials for the Hy-Gain
> 18AVT/WB-S.
> I have downloaded the manual but no specs are on it. I assume the
> measurements are critical.
>
> Denis EI6HB
> ei6hb at eircom.net
Denis -

This specific antennas has been discontinued by MFJ / Hy-Gain. An Adobe Acrobat version of this manual is available from the Hy-Gain web site.
http://www.hy-gain.com/products.php?prodid=AV-18AVT

http://www.hy-gain.com/man/pdf/AV-18AVT.pdf

Although the original manual did not have the length of the 4 radials below the 80-meter resonator, I did see that on Page 6 of the Adobe Acrobat document -- that someone had handwritten in this data:

1/8" solid rod -- 11 1/4 inches length.

Possibly an actual 18AVT owner could confirm this handwritten measurement.

w9gb

## 1117. Re: Is lighting nuts?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-22 14:59:51 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <2t7in0pmc0c2q95o20at0ajenpgutrm4sv@4ax.com>
Source record: 87812

On 22 Oct 2004 09:51:40 EDT, raiar@bbs.galilei.com.nospam (Gary V. Deutschmann, Sr.) wrote:

>Are you insinuating that a tree struck by lightning cannot live after
>being electrocuted?

C'Mon Gary,

It was a commendation.

73's
Richard Clark, KB7QHC

# 1118. Re: ARRL Propose New License Class & Code-Free HF Access

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-22 15:09:30 UTC
From: richardharrison@webtv.net
Message-ID: <10858-417922AA-945@storefull-3252.bay.webtv.net>
Source record: 87813

Lefty wrote:
"How many realize the ARRL is a business?"

Of course it is, and it is operated by and for its small group of insiders. As the only significant representative of licensed amateurs, ARRL is a monopoly which enjoys the benefits of its status.

Someone must have shown the insiders that deregulation would increase the ranks of amateurs and potential revenues to the ARRL. Now, ARRL is ready to lobby for deregulation. The FCC has been on its path to consolidation, simplification, and deregulation for many years. The FCC should be encouraged to accelerate deregulation. It allows more citizans better use of a valuable public resource. The public owns the radio spectrum. Only enough regulation to assure interference is held to acceptable levels and that common carriers as natural monopolies don`t abuse the public is desirable.

Washington,D.C. needs an Elliot Spitzer who would successfully investigate government agencies and the interest groups who lobby them. Daylight on the deals between the D.C. players might lead to needed reforms.

Best regards, Richard Harrison, KB5WZI

## 1119. 1200 and 2400 MHz antenna design

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-22 15:16:23 UTC
From: Mitchell <mingram1234@alltel.net>
Message-ID: <ev9ed.3$xk5.0@fe39.usenetserver.com>
Source record: 87814

Looking for a design for a multi-element (10-20) yagi antenna that I may use for sending/receiving wireless audio/video used for surveillance system.
Not having the best of luck finding same at this point.
Any help for one's already designed or a good formula to go by to build my own.

Thanks,
Mitchell

# 1120. Re: Discone antenna & antenna tuner?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-22 16:39:19 UTC
From: Jimmie <Gfender@carolina.rr.com>
Message-ID: <XIaed.862$hr3.26705@twister.southeast.rr.com>
Source record: 87815

You say it covers from 28Mhz to 500Mhz. The one I am familiar with that does this is a modified discone that acts as a 1/4 wl antenna with ground plane at 28(probably 27Mhz) If this is the antena I am thinking about it has a long whip coming out of the cneter of the disk and 3 or 4 extra long radials in the skirt. These antennas worked on 144, 220, 432 bands with reasonable SWR.

"Amigaman" <abodo@netnitco.net> wrote in message news:8a3dbede.0410151423.319f78a@posting.google.com...
> Greetings all!..I've got one of them discone antennas, you know, like
> 28-500mhz, blah..blah...on the roof...do I have to use an antenna
> tuner if I would, let's say, try to operate on 2/6 or 440?... I don't
> want to damage my UHF xcvr if there is a high SWR...any info from
> you experts or who done did that is greatly appreciated...You all,
> have a nice weekend & 73's....tony...wa9yoz...Amiga computer user
> going over 12 years now.. Ciao!

# 1121. Re: Gain per unit length of boom

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-22 17:01:22 UTC
From: Jimmie <Gfender@carolina.rr.com>
Message-ID: <C1bed.988$hr3.27467@twister.southeast.rr.com>
Source record: 87816

No appreciable difference between them and NEC program results. You can build every bit as good of an antenna using the curves and given formula as you can a NEC program. Optimization of antenna built from either data still requires the same cut and try tweaking to get the last .001 db out. For all practical purposes the ARRL curves are as good as any. Obviously you have some impractical uses in mind.

"aunwin@insightbb.com" <aunwin@insightbb.com@insightbb.com> wrote in message news:gDfdd.278515$D%.137716@attbi_s51...
>
> "Jimmie" <Gfender@carolina.rr.com> wrote in message
> news:y0ddd.68195$ci3.4056470@twister.southeast.rr.com...
> > A graph from NEC data is going to be pretty much like a graph from the
> ARRL
> > books.
>
> Come on Jimmy,' pretty much like' doesn't cut it on this newsgroup or in
any
> of the professions
> The same as pretty close is not accepted when doing math at college.
> The curves in the ARRL book were done on 'standard' yagis
> measured in the field, at least two of the curves therefore have measuring
> errors, and possibly
> three of those do not match NEC formulated curves.
> Since you do not want to reinvent the wheel which curve or formula do YOU
> want all to
> follow for short boom antennas i.e. which curve, and there are many,
> represents the "wheel" .
> that can be specifically used as the datum curve in response to my
specific
> request?
>
> Note, a NEC produced gragh will produce a scattering of points for
> different yagi's
> but only ONE point for MAX GAIN PER UNIT LENGTH OF BOOM regardless of how
> many elements are used which when used on short booms produce coupling
> effects which
> change current flow, an effect not generally seen when elements are not
> critically coupled
> as in the standard yagi..
>
> Thus the reason I was specific in my request which should have
> removed comments such as 'Patents" from those who seek arguments .
>

> Art
>
>
> By putting the data in a graphic form your are placing the same
> > limits on the data as they had to in the ARRL books. The ARRL graphs
give
> > you a pretty good idea of what goes on when you change element spacing,
> > number of elements and so on. What they dont do is alllow you to perform
> > optimization like the NEC programs . Graphing a NEC program output would
> be
> > the same as going back to the time all you had was the graphs to go by
> > unless you are willing to do all the calculations on your slide rule or
> > calculator. What I am saying is that you already have this data. No
point
> in
> > reinventing the wheel.Unless you think yiou can get a patent on it
>
>
>
> Geez Jimmy you are just not reading posts of others ! If you have the
> requested
> data then point to a link, if I had the data already I wouldn't ask for
help
> seeking it,.
> Art
>
>
>
> > "aunwin@insightbb.com" <aunwin@insightbb.com@insightbb.com> wrote in
> message
> > news:65Zcd.150611$He1.116446@attbi_s01...
> > > Jimmy,
> > > I did not want to choose a curve that matches my modelling which you
can
> > > when presented with three different curves all of which are
formulated
> at
> > > different
> > > times by different people. I would have thought that the advent of
NEC
> > > would
> > > render these curves redundant !
> > > Art
> > >
> > > "Jimmie" <Gfender@carolina.rr.com> wrote in message
> > > news:eMRcd.66272$ci3.3918146@twister.southeast.rr.com...
> > > >
> > > > "aunwin@insightbb.com" <aunwin@insightbb.com@insightbb.com> wrote in
> > > message
> > > > news:xOzcd.263953$D%.243703@attbi_s51...

> > > > > My ARRL books go back a decade or more
> > > > > and the graph showing gain per boom length
> > > > > has several curves based on different measurements
> > > > > e.t.c. Has a graph been made based solely on NEC
> > > > > program findings over say a perfect ground and at a uniform
height?
> > > > > Art
> > > > >
> > > > >
> > > > They probably have been done but there will not be much difference
> > between
> > > > them and the ARRL graphs. Its been long known how to calculate
antenna
> > > gain,
> > > > computers just take the teadous labor out of it.
> > > >
> > > >
> > >
> > >
> >
> >
>
>

# 1122. Re: Gain per unit length of boom

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-22 17:48:31 UTC
From: Jimmie <Gfender@carolina.rr.com>
Message-ID: <PJbed.1251$hr3.30034@twister.southeast.rr.com>
Source record: 87817

"aunwin@insightbb.com" <aunwin@insightbb.com@insightbb.com> wrote in message
news:wAYdd.406148$mD.70164@attbi_s02...
> Tom, where is the link that goes with this info? It doesn't mean anything
as
> it stands
> Art
>
>
> <news0000@taring.org> wrote in message
> news:41785149$0$74187$39cecf19@news.twtelecom.net...
> > aunwin@insightbb.com wrote:
> >
> > > My ARRL books go back a decade or more
> > > and the graph showing gain per boom length
> > > has several curves based on different measurements
> > > e.t.c. Has a graph been made based solely on NEC
> > > program findings over say a perfect ground and at a uniform height?
> > > Art
> > >
> > >
> >
> > For VHF/UHF yagis in free space -
> >
> > WA2PHW Gain Figure of Merit
> >
> > G = 10 log (5.4075 B + 4.25) for B GT 1
> >
> > Where G is gain in dBd and B is boomlength in wavelengths.
> >
> > This is from a database of over 100 VHF/UHF yagis compiled in the early
> > 90's. These are all real buildable yagis, and the antenna range numbers
> > closely agree with the computer models. The numbers were heavily
> > influenced by the 10 to 40 element K1FO series. Thanks again Steve.
> >
> > Note that this predicts a zero length yagi should have about 6 dBd gain.
> > Any ideas on why it intercepts there?
> >
> > tom
> > K0TAR
>
>

# 1123. Re: ARX2B Ringo Ranger

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-22 17:52:25 UTC
From: "Dick, AA5VU" <aa5vuNOSPAM@arrl.net>
Message-ID: <aa5vuNOSPAM-D9EFD8.12521522102004@newssvr30-ext.news.prodigy.com>
Source record: 87818

In article <6NWdd.225660$wV.134835@attbi_s54>,
"w9gb" <onw9mapsgb@no.arrl.spam.net> wrote:

> The Ranger II has a coax of specific length between the radial ring and
> Ranger -- so that the distance of the radials is correct. This is covered in
> the Ranger II manual.
> http://www.cushcraft.com/support/pdf/951290.pdf
>
> So, you have a standard Ringo Ranger and you can purchase the parts from
> Cushcraft - IF you desire to upgrade it to the Ranger II model !!
>
> Greg
> w9gb

Greg,

Thanks for posting the URL to the RR .pdf file. The Ringo Ranger
(standard) was the first ham gear I every purchased and it is still in
use today (27 years later).

Dick, aa5vu (the RR was purchased when I was wt7aan)

# 1124. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-22 18:24:45 UTC
From: John Smith <kd5yikes@mindspring.com>
Message-ID: <Nfced.4388$KJ6.2667@newsread1.news.pas.earthlink.net>
Source record: 87819

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:os3hn09keg7a3i2ehb0tdc6od81hhk061d@4ax.com...
> On Fri, 22 Oct 2004 03:40:53 GMT, "John Smith"
> <kd5yikes@mindspring.com> wrote:
>
>>It isn't my information. It came off the Fractal Antenna Systems Web site.
>
> Hi John,
>
> Possibly a mistake of association then. Historically, correspondence
> from this account has offered a multiplicity of supposed authors hence
> authenticity is dubious at best.
>
> 73's
> Richard Clark, KB7QHC

Your stilted language is difficult for me to understand, Richard.

To what account are you referring?

Do you mean the association of Cohen to Fractal Antennas to N1IR? It is a coincidence that a person who uses the screen name fractenna and signs his posts as N1IR happens to have the same name as the person who founded Fractal Antenna Systems, lives in the same area, and vehemently supports fractal antennas?

John

# 1125. Re: HELP with 220 KLM antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-22 18:35:31 UTC
From: wb4una@aol.com
Message-ID: <20041022143531.01624.00002860@mb-m28.aol.com>
Source record: 87820

NO HELP from KLM...thats said..

ARS: WB4UNA
Randy Chavis
247 Goff Court
West Columbia
S.C. 29172

## 1126. Re: Help conductive anti ox paste source?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-22 18:41:36 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <clblda$17f$1@news.service.uci.edu>
Source record: 87721

Fjx1 wrote:

> I need some of that anti ox conductive paste you use when assembling yagi
> elements. I live on Long Isalnd. Is it available under some brand name at home
> depot or electrical supply shops. Don't know what to call it to a non ham.
>
> Tks
>
>
> fjx1@aol.com
>
> gerry

Butternut/Bencher sells "Butter-It's-Not" for that purpose. Looks like
it might be powdered copper suspended in some kind of grease.

http://www.bencher.com/pricing1.html

73, Jim AC6XG

# 1127. Re: Incorporating a Terk TV-5 as part of a beam?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-22 19:14:44 UTC
From: Richard Lane <rqlhgl@ieee.org>
Message-ID: <41795d54@sys13.hou.wt.net>
Source record: 87722

Richard Lane wrote:
> I live 50m from TV transmitters, want to enhance ch9 (187mHz) without
> using a roof antenna and have a Terk TV-5 amplified set top antenna. Is
> it possible to place directors ahead of its dipole and a reflector
> behind to increase the forward gain and null some of the multipaths?
> Dick
The TV-5 antenna is an angular figure 8 in the horizontal plane having
an overall span of 64cms but measuring around the fig.8 periphery is
86cms. In order to give ~ 8dB gain I was proposing to place 2 directors
in front of the fig.8 and a reflector behind with 0.15 wavelength
spacings and was seeking comments on the idea.
Dick

# 1128. Re: Gain per unit length of boom

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-22 19:27:58 UTC
From: Chuck <wa7rai@raibeam.com>
Message-ID: <N3ded.9115$6P5.8189@okepread02>
Source record: 87723

aunwin@insightbb.com <aunwin@insightbb.com@insightbb.com> wrote in message
news:tEUdd.167111$He1.55962@attbi_s01...
>
> "Chuck" <wa7rai@raibeam.com> wrote in message
> news:fVSdd.9064$6P5.7971@okepread02...
> >
> > aunwin@insightbb.com <aunwin@insightbb.com@insightbb.com> wrote in message
> > news:bMDdd.293802$3l3.275124@attbi_s03...
> >
> > > "Chuck" <wa7rai@raibeam.com> wrote in message
> > > news:XrBdd.8254$6P5.7645@okepread02...
> > > snip.
<... >
> >
> > Hi Art,
> >
> > Ok, I'm always open minded to learn
> > something new...
>
> Wow,,,..... there are not many people around who could say that !.
> Since 99.999% of things presented as new are incorrect most experts
> have determined that the odds favor them if they label EVERYTHING
> new as in error. If something comes along that is really new they always
> have the comment ' I knew about that a long while ago" to fall back on.
>

Hi Art,

Anyone who believes they know it all,
has much to learn :-)

<... >

The program shows that the normal 2 element is not the optimum
> in that a polygon of vectors beats a triangle of vectors.
> At the same time with added elements you get diminishing returns in std and
> conventional forms.
> The program showed that 1 to 1.5 dbi was available over the standard
> 2 element on the same length boom.if one could overcome mechanical
> restraints.
> (I was comparing to a Beasely example of what gain could be attained for two
> elements on a 7 foot boom)
> Now that is not the end of the experiment as I cannot verify the accuracy of
> the program,
> because I did not write it, and I certainly cannot say that my modelling

> aproach is
> without error since that is what many 'experts' point to if they don't like
> the results.
> It was for that reason I asked if any similar data had been made available
> for boom length
> by reputable programmers and antenna 'experts' for comparison purposes ., If
> these initial
> results were quoted as accurrate there would be howls from all the resident
> antenna ' experts"
> and I would immediately be placed in the six foot hole that they have been
> trying to put
> you in for the last eight years
>
> Art

I get the impression that what you are doing
is placing any number of elements on a .1
lambda boomlength, in order to determine if the
close proximity EM interactions produce more
gain than just the standard 2 elements would
on that same boomlength.

In the optimization process, some of the
resulting element diameters are quite small.

You're asking if anyone else has looked into
this, and if any results have been published.

Is this a correct assessment so far?

73 de Chuck, WA7RAI

# 1129. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-22 19:59:38 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <KEded.9025$6q2.4493@newssvr14.news.prodigy.com>
Source record: 87724

Cecil Moore wrote:
> Tom Donaly wrote:
>
>> Who said anything about a circuit model?
>
>
> I'm going to present an example, step by step. Please contribute
> something technical in response.
>
> It's a simple lossless quarter-wave matching section example.
>
> ------50 ohm feedline---+---1/4WL 600 ohm feedline---7200 ohm load
> Pfor1=100w--> Pfor2=352w--> 100w
> <--Pref1=0w <--Pref2=252w
> Vfor1=70.7v--> Vfor2=460v--> Vload=849v
> <--Vref1=0v <--Vref2=389v
> Ifor1=1.414A--> Ifor2=0.766A--> Iload=0.118A
> <--Iref1=0A <--Iref2=0.648A
>
> Vref2 is 180 degrees out of phase with Vfor2 and thus they subtract.
>
> Iref2 is in phase with Ifor2 and thus they add.
>
> The impedance at '+' is (Vfor2-Vref2)/(Ifor2+Ifor1)
>
> The impedance at '+' is (460v-389v)/(0.766A+0.648A) = 70.7V/1.414A = 50
> ohms
>
> Note that the impedance seen at the match point is:
>
> Vfor1/Ifor1 = (Vfor2-Vref2)/(Ifor2+Iref2)
>
> So Tom, do you find anything wrong with this network analysis? If so,
> please be technically specific. (Sorry, your feelings don't matter.)
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>
> -----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet
> News==----
> http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000
> Newsgroups
> ---= East/West-Coast Server Farms - Total Privacy via Encryption =---

Cecil, if I had a dollar for every time you challenged someone to solve a quarter wavelength transmission line transformer problem I could eat a meal in the best restaurant in San Francisco and still have change left over to pay a 20% tip. The question is not whether or not the theory you made up in your head is right or not, but whether the length, shape, volume, whatever of a loading coil on a short antenna makes any substantial difference in the efficiency of the antenna. The problem of increasing the total current on a short antenna was solved so many years ago the fellows who solved it are old enough to be Richard Harrison's grandparents. If Yuri would spend more time researching his subject and less time with his fish thermometers and his diatribes against Tom Rauch he would learn that.
73,
Tom Donaly, KA6RUH

# 1130. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-22 20:41:23 UTC
From: "H. Adam Stevens, NQ5H" <NQ5H@ARRL.net>
Message-ID: <10nis5bptt92jac@corp.supernews.com>
Source record: 87725

"Tom Donaly" <dtdonaly@sbcglobal.net> wrote in message
news:KEded.9025$6q2.4493@newssvr14.news.prodigy.com...
> Cecil Moore wrote:
> > Tom Donaly wrote:
> >
> >> Who said anything about a circuit model?
> >
> >
> > I'm going to present an example, step by step. Please contribute
> > something technical in response.
> >
> > It's a simple lossless quarter-wave matching section example.
> >
> > ------50 ohm feedline---+---1/4WL 600 ohm feedline---7200 ohm load
> > Pfor1=100w--> Pfor2=352w--> 100w
> > <--Pref1=0w <--Pref2=252w
> > Vfor1=70.7v--> Vfor2=460v--> Vload=849v
> > <--Vref1=0v <--Vref2=389v
> > Ifor1=1.414A--> Ifor2=0.766A--> Iload=0.118A
> > <--Iref1=0A <--Iref2=0.648A
> >
> > Vref2 is 180 degrees out of phase with Vfor2 and thus they subtract.
> >
> > Iref2 is in phase with Ifor2 and thus they add.
> >
> > The impedance at '+' is (Vfor2-Vref2)/(Ifor2+Ifor1)
> >
> > The impedance at '+' is (460v-389v)/(0.766A+0.648A) = 70.7V/1.414A = 50
> > ohms
> >
> > Note that the impedance seen at the match point is:
> >
> > Vfor1/Ifor1 = (Vfor2-Vref2)/(Ifor2+Iref2)
> >
> > So Tom, do you find anything wrong with this network analysis? If so,
> > please be technically specific. (Sorry, your feelings don't matter.)
> > --
> > 73, Cecil http://www.qsl.net/w5dxp
> >
> >
> > ----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet
> > News==----
> > http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000
> > Newsgroups

> > ---= East/West-Coast Server Farms - Total Privacy via Encryption =---
>
> Cecil, if I had a dollar for every time you challenged someone to solve
> a quarter wavelength transmission line transformer problem I could eat a
> meal in the best restaurant in San Francisco and still have change left
> over to pay a 20% tip. The question is not whether or not the theory
> you made up in your head is right or not, but whether the length, shape,
> volume, whatever of a loading coil on a short antenna makes any
> substantial difference in the efficiency of the antenna. The problem of
> increasing the total current on a short antenna was solved so many years
> ago the fellows who solved it are old enough to be Richard Harrison's
> grandparents. If Yuri would spend more time researching his subject and
> less time with his fish thermometers and his diatribes against Tom Rauch
> he would learn that.
> 73,
> Tom Donaly, KA6RUH

Tom
You would have enough money to own the restaurant.

sigh
Here goes---
Any difference in current between the ends of a compact loading coil in the
center of a short whip is due to radiation from the coil.
The same people have been making the same arguments here for years.
sheesh!
OTOH is has been entertaining.
73
H.

# 1131. Re: Ready for the polls in Kentucky!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-22 20:43:30 UTC
From: microwaves@blueyonder.co.uk
Message-ID: <417970cc.305781740@news.blueyonder.co.uk>
Source record: 87726

On Thu, 21 Oct 2004 12:33:11 -0400, "Smitty"
<SmittyS@"nospam"alltel.net> wrote:

>VOTE REPUBLICAN!
>
>VOTE BUSH!
>
>
>I'm Registered for to Vote Republican for 2004 here in Kentucky
>
>My Dad is Registered to Vote Republican for 2004 here in Kentucky
>
>My Mom is Registered to Vote Republican for 2004 here in Kentucky
>
>My 3 Brothers are Registered to Vote Republican for 2004 here in Kentucky
>
>My 5 sisters are Registered to Vote Republican for 2004 here in Kentucky
>
>Both my Gandpa's and Grandma's are registered to Vote Repubican for 2004
>here in Kentucky
>
>My 5 Uncles and my 7 aunts are registered to Vote Republican for 2004 here
>in Kentucky

You poor misguided fool ...

# 1132. Re: Incorporating a Terk TV-5 as part of a beam?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-22 21:16:46 UTC
From: Bob Bob <bcnntp@optusnet.com.au>
Message-ID: <vu9o42-79t.ln1@p400bob.lse.com.au>
Source record: 87732

Hi Richard

My gut feel is that adding elements to a set top antenna is a pointless exercise. I think your biggest problems to obtaining a sharp low null pattern wil be internal (room/building) reflections and detuning by being close to other objects. (Element detuning will affect gain/nulls and as soon a you walk near it or place it within a few metres of any objects it will affect the pattern badly) The elements will also lower the antenna input impedence. This may or may not be a problem to the following amplifier.

I am suprised that with transmitters that far away (I guess 50 miles not 50 metres) you are even considering using a set top antenna. I assume you have a good reason for this so there is no point embarking on suggestions of an external one.

If I was limited to using an internal antenna I'd make a 3 element yagi specifically for 187MHz and tune it for maximum front to to back. Given the bandwidth of a TV signal though I doubt I'd reach a good figure. I would follow this by a preamp also tuned to 187MHz. Even then I doubt I'd get pleasing performance with it internally mounted.

The only other suggestion I can make is to go ahead and try it and report back to the NG. Keep in kind that you have to do a good job of tuning the elements you add (spacing and length) to get good nulls. You may in fact want to try a single quad loop reflector and add a air space tuning capacitor in the loop. The idea is to resonate it to about 5% higher than the operating frequency so you'll need to make it slightly larger than that again to allow for the capacitor.

I apologies for not being much help!

Cheers Bob VK2YQA

Richard Lane wrote:
> Richard Lane wrote:
>
>> I live 50m from TV transmitters, want to enhance ch9 (187mHz) without
>> using a roof antenna and have a Terk TV-5 amplified set top antenna.
>> Is it possible to place directors ahead of its dipole and a reflector
>> behind to increase the forward gain and null some of the multipaths?
>> Dick
>
> The TV-5 antenna is an angular figure 8 in the horizontal plane having
> an overall span of 64cms but measuring around the fig.8 periphery is
> 86cms. In order to give ~ 8dB gain I was proposing to place 2 directors

> in front of the fig.8 and a reflector behind with 0.15 wavelength
> spacings and was seeking comments on the idea.
> Dick

## 1133. Re: Ready for the polls in Kentucky!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-22 21:19:20 UTC
From: "Gary S." <Idontwantspam@net>
Message-ID: <lmtin0dn533gfe5ep8gcs5h1mrp2am0sdk@4ax.com>
Source record: 87727

On Fri, 22 Oct 2004 20:43:30 GMT, microwaves@blueyonder.co.uk (Peter)
wrote:

>On Thu, 21 Oct 2004 12:33:11 -0400, "Smitty"
><SmittyS@"nospam"alltel.net> wrote:
>
>>VOTE REPUBLICAN!
>>
>>VOTE BUSH!
>>
>>I'm Registered for to Vote Republican for 2004 here in Kentucky
>>
>>My Dad is Registered to Vote Republican for 2004 here in Kentucky
>>
>>My Mom is Registered to Vote Republican for 2004 here in Kentucky
>>
>>My 3 Brothers are Registered to Vote Republican for 2004 here in Kentucky
>>
>>My 5 sisters are Registered to Vote Republican for 2004 here in Kentucky
>>
>>Both my Gandpa's and Grandma's are registered to Vote Repubican for 2004
>>here in Kentucky
>>
>>My 5 Uncles and my 7 aunts are registered to Vote Republican for 2004 here
>>in Kentucky
>
>You poor misguided fool ...

Registering with party affiliation is only relevant for party
primaries.

In some states, you must be registered in advance with a political
party in order to vote in their primary election. In others, you can
be unenrolled, walk into the primary and choose a part, vote, and then
go back to unenrolled on the way out.

For a final election, such as November 2, everyone in your district
gets the exact same ballot, so party affiliation is irrelevant.

Some will automatically vote for their party's candidate.

Some will vote for the one with the best hair, or the one they would
most want hang out with, or the one with the best slogans.

Some will learn about the important issues, understand the candidates
positions and track records on them, and vote for the candidate of

whichever party they feel is best qualified and will best represent
their personal views and the best interests of the American people
going into the future.

Happy trails,
Gary (net.yogi.bear)
---
at the 51st percentile of ursine intelligence

Gary D. Schwartz, Needham, MA, USA
Please reply to: garyDOTschwartzATpoboxDOTcom

# 1134. Re: Why do WiFi basestations use two antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-22 21:23:05 UTC
From: mike beauchamp <mbeauchamp@cogeco.ca>
Message-ID: <VSeed.5499$q02.1057190@read2.cgocable.net>
Source record: 87728
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,uk.radio.amateur,uk.tech.broadcast

uh guys!! this is a ham radio news group!!!!!
If you cant get along on the net then why would you be a ham ...
Your not acting like the diplomatic sort of people i wanted to be like when
i was younger.
I wanted to be a ham to promote the hobby not destroy it..
this is childish....
cmon guys

I dont even care if your cb,ers you know what swr is ....
then act like you do and dont act like you are a standing wave ratio (3:1)
And its got nothing to do with me being Canadian either...
Lets get along and stop picking on people..
Grow up!!!!!!!

"Airy R. Bean" <me@privacy.net> wrote in message
news:2ssb1jF1ngvmbU1@uni-berlin.de...
> And here in Britland, those who originated or who now
> support the gangrenous degeneration that is the M3/CB
> Fools License scheme have f*cked Ham Radio good and proper!
>
> "Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
> news:ck9pu6$47o$1@titan.btinternet.com...
> > All physical contact and association between people of all ages is
> > fundamentally sexual in nature. It's for the propagation of our
species.
> > Otherwise there is no genetical reason for contact. It's all built into
> our
> > genes.
>
>

# 1135. Re: Gain per unit length of boom

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-22 21:28:52 UTC
From: "aunwin@insightbb.com"
Message-ID: <oYeed.289823$MQ5.38322@attbi_s52>
Source record: 87729

YES
Art
"Chuck" <wa7rai@raibeam.com> wrote in message
news:N3ded.9115$6P5.8189@okepread02...
>
> aunwin@insightbb.com <aunwin@insightbb.com@insightbb.com> wrote in message
> news:tEUdd.167111$He1.55962@attbi_s01...
> >
> > "Chuck" <wa7rai@raibeam.com> wrote in message
> > news:fVSdd.9064$6P5.7971@okepread02...
> > >
> > > aunwin@insightbb.com <aunwin@insightbb.com@insightbb.com> wrote in
message
> > > news:bMDdd.293802$3l3.275124@attbi_s03...
> > >
> > > > "Chuck" <wa7rai@raibeam.com> wrote in message
> > > > news:XrBdd.8254$6P5.7645@okepread02...
> > > > snip.
> <... >
> > >
> > > Hi Art,
> > >
> > > Ok, I'm always open minded to learn
> > > something new...
> >
> > Wow,,,..... there are not many people around who could say that !.
> > Since 99.999% of things presented as new are incorrect most experts
> > have determined that the odds favor them if they label EVERYTHING
> > new as in error. If something comes along that is really new they always
> > have the comment ' I knew about that a long while ago" to fall back on.
> >
>
> Hi Art,
>
> Anyone who believes they know it all,
> has much to learn :-)
>
> <... >
>
> The program shows that the normal 2 element is not the optimum
> > in that a polygon of vectors beats a triangle of vectors.
> > At the same time with added elements you get diminishing returns in std
and
> > conventional forms.

> > The program showed that 1 to 1.5 dbi was available over the standard
> > 2 element on the same length boom.if one could overcome mechanical
> > restraints.
> > (I was comparing to a Beasely example of what gain could be attained for
two
> > elements on a 7 foot boom)
> > Now that is not the end of the experiment as I cannot verify the
accuracy of
> > the program,
> > because I did not write it, and I certainly cannot say that my modelling
> > aproach is
> > without error since that is what many 'experts' point to if they don't
like
> > the results.
> > It was for that reason I asked if any similar data had been made
available
> > for boom length
> > by reputable programmers and antenna 'experts' for comparison purposes
., If
> > these initial
> > results were quoted as accurrate there would be howls from all the
resident
> > antenna ' experts"
> > and I would immediately be placed in the six foot hole that they have
been
> > trying to put
> > you in for the last eight years
> >
> > Art
>
> I get the impression that what you are doing
> is placing any number of elements on a .1
> lambda boomlength, in order to determine if the
> close proximity EM interactions produce more
> gain than just the standard 2 elements would
> on that same boomlength.
>
> In the optimization process, some of the
> resulting element diameters are quite small.
>
> You're asking if anyone else has looked into
> this, and if any results have been published.
>
> Is this a correct assessment so far?
>
> 73 de Chuck, WA7RAI
>
>
>
>

>

# 1136. Re: Gain per unit length of boom

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-22 21:54:50 UTC
From: richardharrison@webtv.net
Message-ID: <8843-417981AA-1066@storefull-3253.bay.webtv.net>
Source record: 87731

Chuck, WA7RAI wrote:
"I get the impression that what you are doing is placing any number of elements on a .1 lambda boomlength in order to determine if the close proximity EM interactions produce more gain than just the standard 2 elements would on that same boom length."

Close element spacing was once used to make a class called supergain antennas. Kraus notes in his 1950 "Antennas" that: "Until the antenna power was considered by G.H. Brown (Proc. I.R.E. January, 1937) the advantages of closely spaced elements were not appreciated." The W8JK array by Kraus is closely spaced. Kraus notes a downside: "Hence, a considerable reduction in radiating efficiency may result from the presence of any loss resistance, (The radiatiation resistance drops as spacing shrinks.)" See "Antennas" edition 3 for close spaced antennas.

Best regards, Richard Harrison, KB5WZI

# 1137. Re: Tower Help 50 ft Rohn

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-22 21:55:49 UTC
From: Crazy George <muNnscOh@attSglPobaAl.nMet>
Message-ID: <41798532_3@news1.prserv.net>
Source record: 87730

Jonathan:

Well, I usually point out the dangers, but these other replies are all over the map and typically misleading. If you
have a 50 foot long clear area, and some competent help, send one person up in the cherry picker. Raise it to about 90%
of max height, and tie a short rope to the tower. Then, jack apart the lowest joint, while keeping the slack out of the
rope. If the bottom section is buried in cement, torch it off at the ground instead. With a little care, there will be
no sudden changes in loading on anything. When the tower is loose, walk the bottom away from the base while the cherry
picker lowers straight down. Then do the remainder of the disassembly at ground level. Be sure the cherry picker is
rated for the load, and the outriggers are properly set.

--
Crazy George
Remove N O and S P A M imbedded in return address
"yoyo" <yoyo@yahoo.com> wrote in message
news:NZxdd.42845$_U4.14192@fe47.usenetserver.com...
> I have been given a 50 ft Rohn tower (galvanized).
>
> Problem is, I have to get it down. and I have a couple questions.
>
> Weight of each section?
>
> estimate of a resonable charge to have someone do it for me? I don't
> like climbing
>
> Is it worth paying 160 bucks to rent a 50 ft cherry picker to do it?
>
>
> Thanks
>
> Jonathan
> KB8PFA
>

## 1138. How to tune UHV-6

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-22 23:42:57 UTC
From: "Estel J. Hines" <ejhines@comcast.net>
Message-ID: <W_Sdnch3LZqYBuTcRVn-sg@comcast.com>
Source record: 87733

I have the Comet UHV-6, and the instructions don't say how it should be tuned (sequence, etc.).

It has 440/2 meter/6 meter in the basic configuration, and I am having trouble getting the right swr on it, I have an swr meter.

Could someone tell me which sequence should be used?

Thanks for any help,

Estel J. Hines

# 1139. Re: ARX2B Ringo Ranger

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-23 01:10:34 UTC
From: billybeeper@juno.com
Message-ID: <1e4e3692.0410221710.7a440ea7@posting.google.com>
Source record: 87734

theplanters95@aol.comnospam (Theplanters95) wrote in message
news:<20041021034324.22449.00001296@mb-m06.aol.com>...
> I was recently given a Ringo Ranger. I downloaded the manual and found out
> that I'm missing a radial kit. Is it needed? How can I cheaply home brew the
> radial kit?
>
> Randy ka4nma

Randy, I was once give a Ringo with the hairpin match and top part.
It had been through several typhoons and such. Anyway, I couldn't get
it to match as designed, so I gave it away. The ham I gave it to
threw away all of the extra stuff, and just used the bottom half of
the antenna and the ring "o" part. Worked great.

Don't give up if the radials are missing. You might be able to use
just the bottom half.

bb

# 1140. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-23 01:53:08 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <4179b7ac_4@127.0.0.1>
Source record: 87735

Tom Donaly wrote:
> The question is not whether or not the theory
> you made up in your head is right or not, but whether the length, shape,
> volume, whatever of a loading coil on a short antenna makes any
> substantial difference in the efficiency of the antenna.

No, that's not the question at all. You have diverted the issue from current through the coil to efficiency. The question is whether the current at each end of a real-world loading coil is the same or not the same. Efficiency is irrelevant.

Diverting the issue is an obvious tactic employed by someone who is losing the argument.

If one doesn't understand standing waves on a transmission line, one cannot understand standing-wave antennas. The ignorance of how standing-wave antennas work is the basic problem. I am attempting to alleviate that ignorance.
--
73, Cecil http://www.qsl.net/w5dxp

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# 1141. Re: 1200 and 2400 MHz antenna design

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-23 01:59:36 UTC
From: K7MEM <k7mem@myrealbox.com>
Message-ID: <clcdu8$o7l4@cui1.lmms.lmco.com>
Source record: 87736

Mitchell wrote:

> Looking for a design for a multi-element (10-20) yagi antenna that I may use
> for sending/receiving wireless audio/video used for surveillance system.
> Not having the best of luck finding same at this point.
> Any help for one's already designed or a good formula to go by to build my
> own.

Take a look at these pages on my web site:

http://www.k7mem.150m.com/Electronic_Notebook/antennas/yagi_vhf.html#Page_Top

and

http://www.k7mem.150m.com/Electronic_Notebook/antennas/yagi_vhf_feed.html#Page_Top

This may give you the help you need. Watch out for the popups because it's a
free web site.

--
Martin E. Meserve - K7MEM
http_//www.k7mem.150m.com

# 1142. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-23 02:37:06 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <4179c1f9_4@127.0.0.1>
Source record: 87737

H. Adam Stevens, NQ5H wrote:
> Any difference in current between the ends of a compact loading coil in the
> center of a short whip is due to radiation from the coil.

That's an old wives' tale. But don't feel bad. Kurt N. Sterba made essentially that same mistake in his Nov. 2004 article in "Worldradio". Anyone who believes that the current is zero at the tip end of a standing-wave antenna because it has been radiated needs a refresher course in standing waves.

**********
* Any difference in forward current between the ends of a loading
* coil is due to radiation from the coil.
*
* Any difference in reflected current between the ends of a loading
* coil is due to radiation from the coil.
**********

Please read those two statements until they soak in because they agree with you about component currents but disagree with you about superposed currents.

The main difference between the net superposed current at each end of the coil is caused by the phase shift through the coil acting on each of those current components in opposite phase-rotation since they are traveling in opposite directions.

Is any difference in current between the ends of a section of transmission line due to radiation from the transmission line? Yes, but most of the difference is due to phase shifts between the forward and reflected waves. Exactly the same concepts apply both to a transmission line with standing waves and a standing-wave antenna. In fact, a horizontal wire antenna is nothing more than a "lossy" transmission line losing energy to radiation.

A mobile antenna is a standing-wave antenna possessing a Z0, just like a transmission line. There's a forward current and a reflected current. The superposition of those two component currents causes the main difference in the magnitude of the net current at each end of the coil.

When Roy, W7EL, measured the phase of the current at each end of the coil, he measured the phase of the NET superposed current, not the phase of the forward current or reflected current. The phase shift of the NET superposed current is only a couple of degrees max from feedpoint to end as asserted by Kraus in "Antennas for all Applications", page 464.

In the ARRL Antenna Book is an equation for the characteristic impedance of a single wire over ground. It is 138*log(4h/d) where 'h' is the height of the antenna and 'd' is the diameter of the wire. The Z0 for a piece of #16

wire positioned 24 feet above ground is about 600 ohms. A quarter wavelength of that wire used as an antenna responds essentially the same as a quarter wavelength of lossy transmission line. There is a large reflected current component at the tip of a mobile (standing-wave) antenna.

In fact, my earlier quarter-wavelength matching section plus its 100w load acts similar to a quarter-wavelength antenna radiating 100w.
--
73, Cecil http://www.qsl.net/w5dxp

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# 1143. Re: 1200 and 2400 MHz antenna design

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-23 02:50:42 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <du-dnT0uYPVJW-TcRVn-2w@comcast.com>
Source record: 87738

"Mitchell" <mingram1234@alltel.net> wrote in message
news:ev9ed.3$xk5.0@fe39.usenetserver.com...
> Looking for a design for a multi-element (10-20) yagi antenna that I may
> use for sending/receiving wireless audio/video used for surveillance
> system. Not having the best of luck finding same at this point.
> Any help for one's already designed or a good formula to go by to build my
> own.
>
> Thanks,
> Mitchell
>
>
>
If you decide to buy, check out http://www.directivesystems.com/ . Some of their stuff is also available from Down East Microwave. For abour $100 you will get one with about twice the number of elements you mention. At these frequencies all your dimensions have to be very exact. I once bought their big 2.4 GHz loop Yagy.

Tam

# 1144. Re: Incorporating a Terk TV-5 as part of a beam?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-23 03:21:08 UTC
From: Richard Lane <rqlhgl@ieee.org>
Message-ID: <4179cf57@sys13.hou.wt.net>
Source record: 87739

Bob Bob wrote:
> Hi Richard
>
> My gut feel is that adding elements to a set top antenna is a pointless
> exercise. I think your biggest problems to obtaining a sharp low null
> pattern wil be internal (room/building) reflections and detuning by
> being close to other objects. (Element detuning will affect gain/nulls
> and as soon a you walk near it or place it within a few metres of any
> objects it will affect the pattern badly) The elements will also lower
> the antenna input impedence. This may or may not be a problem to the
> following amplifier.
>
> I am suprised that with transmitters that far away (I guess 50 miles not
> 50 metres) you are even considering using a set top antenna. I assume
> you have a good reason for this so there is no point embarking on
> suggestions of an external one.
>
> If I was limited to using an internal antenna I'd make a 3 element yagi
> specifically for 187MHz and tune it for maximum front to to back. Given
> the bandwidth of a TV signal though I doubt I'd reach a good figure. I
> would follow this by a preamp also tuned to 187MHz. Even then I doubt
> I'd get pleasing performance with it internally mounted.
>
> The only other suggestion I can make is to go ahead and try it and
> report back to the NG. Keep in kind that you have to do a good job of
> tuning the elements you add (spacing and length) to get good nulls. You
> may in fact want to try a single quad loop reflector and add a air space
> tuning capacitor in the loop. The idea is to resonate it to about 5%
> higher than the operating frequency so you'll need to make it slightly
> larger than that again to allow for the capacitor.
>
> I apologies for not being much help!
>
> Cheers Bob VK2YQA
>
> Richard Lane wrote:
>
>> Richard Lane wrote:
>>
>>> I live 50m from TV transmitters, want to enhance ch9 (187mHz) without
>>> using a roof antenna and have a Terk TV-5 amplified set top antenna.
>>> Is it possible to place directors ahead of its dipole and a reflector
>>> behind to increase the forward gain and null some of the multipaths?
>>> Dick

>>
>>
>> The TV-5 antenna is an angular figure 8 in the horizontal plane having
>> an overall span of 64cms but measuring around the fig.8 periphery is
>> 86cms. In order to give ~ 8dB gain I was proposing to place 2
>> directors in front of the fig.8 and a reflector behind with 0.15
>> wavelength spacings and was seeking comments on the idea.
>> Dick
Today I made up a 2 director, 1 reflector "beam" out of 1/4" dowels
wrapped with cooking foil, the reflector was planned to be 26cm to the
center of Terk dipole, Terk to 1st director is 16cm as is 1st to 2nd
director. The reflector is 80cm, 1st director is 73.6cm, 2nd director is
71cm. It appears to make a big improvement, however it "works best"
positioned with the Terk about 2cm behind the 1st director! I have no
field strength instruments but though "snowy" the sound is quite solid.
I have not yet tried moving the whole assembly around the condo living
room though given the Terk amplifier I should be able to use several
meters of coax before the loss starts to show in noise figure.
The "Association" does not allow external antennas and as I watch very
little TV I resent paying $50/m for the one or two hours I watch each
month. I am a retired microwave device engineer but not an antenna expert.
Thank you for your interest in my experiment.
Dick

# 1145. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-23 03:30:20 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <olijn0t6s36k3k4qqthg3al29uqce5m09k@4ax.com>
Source record: 87740

On Fri, 22 Oct 2004 18:24:45 GMT, "John Smith"
<kd5yikes@mindspring.com> wrote:
>?

Hi John,

Historically, there have been MANY authors, all making claims to be different persons OR there has been ONE author claiming to be different persons FROM ONE account that is not a professional address. ALL supposed authors claim to be working for a commercial business selling fractal antennas. However, this is strictly speculation as absolutely no evidence of this commercial pursuit is apparent in ANY correspondence.

Stilted or otherwise, the confusion resides at one common point originating these messages. In just the past week I've seen several messages posted by two sides of a dialogue BOTH claiming to be the same correspondent from different addresses. Signatures at the bottom of a post are a wholly insecure means of asserting identity. Further, individuals attempting to draw you into commercial correspondence through non-commercial addresses (accounts) are the leading form of Phishing. I hope this last term is not lost on you.

73's
Richard Clark, KB7QHC

# 1146. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-23 04:06:01 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <IMked.33794$QJ3.25164@newssvr21.news.prodigy.com>
Source record: 87741

Cecil Moore wrote:
> Tom Donaly wrote:
>
>> The question is not whether or not the theory
>> you made up in your head is right or not, but whether the length, shape,
>> volume, whatever of a loading coil on a short antenna makes any
>> substantial difference in the efficiency of the antenna.
>
>
> No, that's not the question at all. You have diverted the issue from
> current through the coil to efficiency. The question is whether the
> current at each end of a real-world loading coil is the same or not
> the same. Efficiency is irrelevant.
>
> Diverting the issue is an obvious tactic employed by someone who is
> losing the argument.
>
> If one doesn't understand standing waves on a transmission line, one
> cannot understand standing-wave antennas. The ignorance of how standing-
> wave antennas work is the basic problem. I am attempting to alleviate
> that ignorance.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>
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> News==----
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Cecil, I'll believe you know something about loading coils when you
go back to school and learn something about basic classical
electromagnetic theory. As it stands, all you can do is make one
unsupported statement after another and hope someone is gullible
enough to believe you.
73,
Tom Donaly, KA6RUH

(P.S. How do you know what the subject was? You didn't read all
the posts.)

## 1147. Re: ARX2B Ringo Ranger

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-23 04:27:21 UTC
From: theplanters95@aol.comnospam
Message-ID: <20041023002721.05810.00004298@mb-m27.aol.com>
Source record: 87742

If the radials are to decouple feedline radiation, then why wouldn't coax coiled into a choke balun work? Maybe 6 or 10 turns at about 5 or 6 inches?

Randy

# 1148. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-23 04:48:03 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <4179e09e_4@127.0.0.1>
Source record: 87743

Tom Donaly wrote:
> Cecil, I'll believe you know something about loading coils when you
> go back to school and learn something about basic classical
> electromagnetic theory.

Been there - done that - even got the T-shirt with Maxwell's
equations on it. I suspect that your university never taught
the real thing.

> As it stands, all you can do is make one
> unsupported statement after another and hope someone is gullible
> enough to believe you.

I supported my statements with examples. Strangely enough, you
haven't posted any technical disagreement with my examples. All
you do is take potshots based on nothing except your feelings.

It's impossible to argue with you on a technical basis because you
have not posted anything technical. Do you disagree that the Z0
of a single #16 wire located 24 ft. above ground is ~600 ohms? Do
you disagree that such a wire can support standing waves whether
used as a transmission line or as an antenna?

Please post what you find technically wrong with my examples (all
based on valid distributed network reflection models) which I
learned in the 50's from "Field and Waves in Modern Radio" by Ramo
and Whinnery and a later edition of the same book in graduate school.
--
73, Cecil http://www.qsl.net/w5dxp

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# 1149. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-23 04:56:36 UTC
From: John Smith <kd5yikes@mindspring.com>
Message-ID: <8wled.4765$KJ6.2946@newsread1.news.pas.earthlink.net>
Source record: 87744

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:olijn0t6s36k3k4qqthg3al29uqce5m09k@4ax.com...
> On Fri, 22 Oct 2004 18:24:45 GMT, "John Smith"
> <kd5yikes@mindspring.com> wrote:
>>?
>
> Hi John,
>
> Historically, there have been MANY authors, all making claims to be
> different persons OR there has been ONE author claiming to be
> different persons FROM ONE account that is not a professional address.
> ALL supposed authors claim to be working for a commercial business
> selling fractal antennas. However, this is strictly speculation as
> absolutely no evidence of this commercial pursuit is apparent in ANY
> correspondence.
>
> Stilted or otherwise, the confusion resides at one common point
> originating these messages. In just the past week I've seen several
> messages posted by two sides of a dialogue BOTH claiming to be the
> same correspondent from different addresses. Signatures at the bottom
> of a post are a wholly insecure means of asserting identity. Further,
> individuals attempting to draw you into commercial correspondence
> through non-commercial addresses (accounts) are the leading form of
> Phishing. I hope this last term is not lost on you.

It is not. Thanks.

John

> 73's
> Richard Clark, KB7QHC

# 1150. Re: 1200 and 2400 MHz antenna design

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-23 05:30:28 UTC
From: Rick Frazier <rickf@rickfrazier.com>
Message-ID: <4179EB83.61D4642C@rickfrazier.com>
Source record: 87745

Wifi runs at 2.4Ghz... There are tons of high gain antennas available for 2.4Ghz band, some of which are pretty reasonable.

Thanks
--Rick

Mitchell wrote:

> Looking for a design for a multi-element (10-20) yagi antenna that I may use
> for sending/receiving wireless audio/video used for surveillance system.
> Not having the best of luck finding same at this point.
> Any help for one's already designed or a good formula to go by to build my
> own.
>
> Thanks,
> Mitchell

# 1151. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-23 05:41:08 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <2ppjn051d5hl4c8ujmkf21jo370tdku3tf@4ax.com>
Source record: 87746

On Sat, 23 Oct 2004 04:56:36 GMT, "John Smith"
<kd5yikes@mindspring.com> wrote:
>> Phishing. I hope this last term is not lost on you.
>
>It is not. Thanks.

Hi John,

This term relates to the practice of "look alike" email,
correspondence and web pages that purport to be legitimate businesses.
One such example
http://web.ask.com/redir?bpg=http%3a%2f%2fweb.ask.com%2fweb%3fq%3dphishing%2bebay%26o%3d0%26page%3d1&q=phishing+ebay&u=http%3a%2f%2ftm.wc.ask.com%2fr%3ft%3dan%26s%3da%26uid%3d0CAE7F931C7039CF3%26sid%3d1403F394C318E9714%26qid%3dC7EDE92455EF9C46A616C9A2BDF01BE7%26io%3d0%26sv%3dza5cb0deb%26o%3d0%26ask%3dphishing%2bebay%26uip%3d1813385b%26en%3dte%26eo%3d-100%26pt%3dRecent%2bFraud%2bAlerts%2b-%2bFraudWatch%2bInternational%26ac%3d7%26qs%3d0%26pg%3d1%26ep%3d1%26te_par%3d108%26te_id%3d%26u%3dhttp%3a%2f%2fwww.fraudwatchinternational.com%2ffraud_alerts%2falerts.htm&s=a&bu=http%3a%2f%2fwww.fraudwatchinternational.com%2ffraud_alerts%2falerts.htm&qte=0&o=0&abs=...eBay+phishing+email+-+%26quot%3beBay+Reminder+%3a+Email+regarding+pre-indefinitely+suspended+from+eBay+%231%26quot%3b+August+04+2004...&tit=Recent+Fraud+Alerts+-+FraudWatch+International&bin=&cat=wp&purl=http%3a%2f%2ftm.wc.ask.com%2fi%2fb.html%3ft%3dan%26s%3da%26uid%3d0CAE7F931C7039CF3%26sid%3d1403F394C318E9714%26qid%3dC7EDE92455EF9C46A6
16C9A2BDF01BE7%26io%3d%26sv%3dza5cb0deb%26o%3d0%26ask%3dphishing%2bebay%26uip%3d1813385b%26en%3dbm%26eo%3d-100%26pt%3d%26ac%3d7%26qs%3d0%26pg%3d1%26u%3dhttp%3a%2f%2fmyjeeves.ask.com%2faction%2fsnip&Complete=1
(obtained by simply googling the terms "phishing ebay" and taking the
first hit that leads you to fraudwatchinternation.com).
There are literally DOZENs of fraud alerts for emails originating from
AOL (notorious for its simple access by simply opening an account from
one of any of 100 million CDROMS in the mail).

Anyway, the fraud proceeds by using lookalike names to the legitimate
commercial entity. Now, this lookalike is only slightly off from the
legitimate name such that you might be willing to follow the
directions from correspondence purporting to be from ebay.org or
ebaypurchasing.com or ebayaccounts.net or any of a number of variants
such as these. Another form of "spoofing" (giving the appearance of
legitimacy where the intent is to defraud) is to offer links to
legitimate commercial entities (often seen on the web page in the
traditional blue color) while the underlying html script points to
another address. In other words you click on what appears to be
ebay.com and you end up at 127.000.000.001 which is really the address
of a con artist. You cut a deal thinking you have been working with
ebay, and you have opened your account with Ossama.

This is all called "Phishing." The allusion is like it sounds, they
are fishing for your financial information to raid your bank and
credit.

Myself, I cannot think of going blind into any kind of correspondence
that starts out like this (a recent example from today):
>Here is Lucy Mcgraw. I write to you because we are accepting your mortgage application.
>Our office confirms you can get a $220.000 loï¿½n for a $252.00 per month payment.
>Approval process will take 1 minute, so please fill out the form on our website:
>
>http://hunter-crescent.net-cash.net
>
>Thank you.
>
>Best Regards Lucy Mcgraw
>First Account Manager

You should note that there are many red flags waving here. The odd
salutation; the misspelled word loan; the absurd low rate against the
principle, the promise of a quick application; and certainly a curious
signature that in NO WAY resembles the non-professional email account
name of xgrayqobeslegq@yahoo.com that originated the correspondence.
This lure screams Sucker Alert from end to end and is classic
phishing.

Click on the address and you can well expect to divulge something to
THEIR advantage in 1 minute!

Phishing. I trust this term is no longer lost on you.

73's
Richard Clark, KB7QHC

# 1152. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-23 05:45:51 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <bkrjn0h9uvd80av816sam6fet3akli11hm@4ax.com>
Source record: 87747

On Sat, 23 Oct 2004 04:56:36 GMT, "John Smith"
<kd5yikes@mindspring.com> wrote:
>> Phishing. I hope this last term is not lost on you.
>
>It is not. Thanks.

Hi John,

Sorry, it occured to me through my reading double negatives that I
appear to have taken you for being a neophyte. On reflection, I can
appreciate the warnings were overkill.

73's
Richard Clark, KB7QHC

# 1153. Re: Incorporating a Terk TV-5 as part of a beam?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-23 06:11:42 UTC
From: Bob Bob <bcnntp@optusnet.com.au>
Message-ID: <0a9p42-70v.ln1@p400bob.lse.com.au>
Source record: 87748

Hi Dick

Excellent!

I use to chat to a fellow amateur many years ago that lived in a high
rise apartment. He set up his 144MHz yagi on a short tripod and pointed
it out the window. It was surprising how well it worked.

I didnt mention but another effective antenna for unit and condo
dwellers is aluminum foil antennas stuck to windows. This unfortunately
may not work too well for TV because of the need to keep directivity

Just for my interest what country/state/town etc are you in?

Cheers Bob VK2YQA

>
> Today I made up a 2 director, 1 reflector "beam" out of 1/4" dowels
> wrapped with cooking foil, the reflector was planned to be 26cm to the
> center of Terk dipole, Terk to 1st director is 16cm as is 1st to 2nd
> director. The reflector is 80cm, 1st director is 73.6cm, 2nd director is
> 71cm. It appears to make a big improvement, however it "works best"
> positioned with the Terk about 2cm behind the 1st director! I have no
> field strength instruments but though "snowy" the sound is quite solid.
> I have not yet tried moving the whole assembly around the condo living
> room though given the Terk amplifier I should be able to use several
> meters of coax before the loss starts to show in noise figure.
> The "Association" does not allow external antennas and as I watch very
> little TV I resent paying $50/m for the one or two hours I watch each
> month. I am a retired microwave device engineer but not an antenna expert.
> Thank you for your interest in my experiment.
> Dick

# 1154. Re: Why do WiFi basestations use two antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-23 08:32:39 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2tujenF24ua7tU1@uni-berlin.de>
Source record: 87749
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,uk.radio.amateur,uk.tech.broadcast

I think that you misunderstand what is being said.

Ham Radio is not a "hobby"; that is a description of
CB Radio.

Ham Radio is a technical pursuit for those suitably qualified - and
the M3/CB Fools' Licensee is not so qualified - he is specifically
forbidden to build his own gear from scratch and is therefore
not classifiable as a Ham by any stretch of the imagination.

You seem to be confusing a genuine concern that standards be
maintained with undesirable emotional attitudes that you yourself
project.

I append a short article to assist you to disambiguate the Ham from
the CBer.

"mike beauchamp" <mbeauchamp@cogeco.ca> wrote in message
news:VSeed.5499$q02.1057190@read2.cgocable.net...
> uh guys!! this is a ham radio news group!!!!!
> If you cant get along on the net then why would you be a ham ...
> Your not acting like the diplomatic sort of people i wanted to be like
when
> i was younger.
> I wanted to be a ham to promote the hobby not destroy it..
> this is childish....
> cmon guys
> I dont even care if your cb,ers you know what swr is ....
> then act like you do and dont act like you are a standing wave ratio
(3:1)
> And its got nothing to do with me being Canadian either...
> Lets get along and stop picking on people..
> Grow up!!!!!!!
> "Airy R. Bean" <me@privacy.net> wrote in message
> news:2ssb1jF1ngvmbU1@uni-berlin.de...
> > And here in Britland, those who originated or who now
> > support the gangrenous degeneration that is the M3/CB
> > Fools License scheme have f*cked Ham Radio good and proper!
> > "Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
> > news:ck9pu6$47o$1@titan.btinternet.com...
> > > All physical contact and association between people of all ages is
> > > fundamentally sexual in nature. It's for the propagation of our
> species.
> > > Otherwise there is no genetical reason for contact. It's all built

into
> > our
> > > genes.

------ooooo-----

What is Ham Radio?

Ham Radio is a technical pursuit for those who
are interested in the science of radio wave
propagation and who are also interested in the
way that their radios function. It has a long-standing
tradition of providing a source of engineers who
are born naturals.

Ham Radio awakens in its aficionados a whole-life
fascination with all things technical and gives
an all-abiding curiosity to improve one's scientific
knowledge. It's a great swimming pool, please dive in!

This excitement causes a wish to share the experience
with ones fellow man, and shows itself in the
gentlemanly traditions of Ham Radio.

Radio Hams are qualified to design, build and then
operate their own pieces of equipment. They do this
with gusto, and also repair and modify their own
equipment.

The excitement that drives a Radio Ham starts with
relatively simple technologies at first, perhaps making
his own Wimshurst machine and primary cells. Small pieces
of test equipment follow, possibly multimeters and signal
generators. Then comes receivers and transmitters. It is with
the latter that communication with like-minded technically
motivated people takes off. The scope for technical
development grows with the years
and now encompasses DSP and DDS. There is also a great deal
of excitement in the areas of computer programming to
be learnt and applied.

The technical excitement motivates Radio Hams to compete
with each other to determine who has designed and manufactured
the best-quality station. This competitiveness is found in DXing,
competitions and fox-hunts.

-----OOOOO----

However, beware! A Ham Radio licence is such a
desirable thing to have that there are large
numbers of people who wish to be thought of
as Radio Hams when, in fact, they are nothing
of the kind! Usually such people are a

variation of the CB Radio hobbyist; they buy their
radios off the shelf and send them back to be
repaired; they are not interested in technical discussion
and sneer at those who are; they have no idea how
their radios work inside and have no wish to find out;
they are free with rather silly personal insults;
they have not satisfied any technical qualification
and their licences prevent the use of
self-designed-and-built equipment.

These CB types engage in the competitive activities
with their Cheque-Book-purchased off-the-shelf radios
in a forlorn effort to prove that they are Radio Hams.

No _REAL_ Radio Hams are deceived by such people!

# 1155. Re: Why do WiFi basestations use two antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-23 09:46:43 UTC
From: Frank Turner-Smith G3VKI <g3vki@turner-smith.co.uk>
Message-ID: <2tunnrF25690nU1@uni-berlin.de>
Source record: 87750
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,uk.radio.amateur,uk.tech.broadcast

"Airy R. Bean, village idiot" <me@privacy.net> emptied the contents of her
tamon into message news:2tujenF24ua7tU1@uni-berlin.de...
>I think that you misunderstand what is being said.
>
> Ham Radio is not a "hobby"; that is a description of
> CB Radio.
>
< large quantity of moronic, repetitious garbage snipped >

YAWN, now run away and play on the M4, there's a good Anus
...(_!_)...

# 1156. Re: Phishing/Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-23 10:35:18 UTC
From: David J Windisch <davidw@copper.net>
Message-ID: <417a3423_4@newsfeed.slurp.net>
Source record: 87751

Dagnab it, Richard, double negatives or not, I appreciate the tutorial. Certain neurological events have reduced further my already modest ability and quickness in grasping, eg, phishing, sans elmering such as you provided. Otoh, it (the reduction) isn't all bad. I've recovered a portion of the longlost ability of looking at things with the eyes of a child, which eyes can overlook at least some of the egregious compartmentalization rife in adult discourse.

If nothing else, I get a kick out of your rhetorical flourishes, usually, once they sink in ;o)

Best regards's,

David Windisch, N3HE

"Impeach Kirchhoff and Ohm."

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:bkrjn0h9uvd80av816sam6fet3akli11hm@4ax.com...
> On Sat, 23 Oct 2004 04:56:36 GMT, "John Smith"
> <kd5yikes@mindspring.com> wrote:
>>> Phishing. I hope this last term is not lost on you.
>>
>>It is not. Thanks.
>
> Hi John,
>
> Sorry, it occured to me through my reading double negatives that I
> appear to have taken you for being a neophyte. On reflection, I can
> appreciate the warnings were overkill.
>
> 73's
> Richard Clark, KB7QHC

# 1157. Re: 1200 and 2400 MHz antenna design

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-23 11:41:42 UTC
From: fractenna@aol.com
Message-ID: <20041023074142.18151.00005107@mb-m03.aol.com>
Source record: 87752

>Looking for a design for a multi-element (10-20) yagi antenna that I may use
>for sending/receiving wireless audio/video used for surveillance system.
>Not having the best of luck finding same at this point.
>Any help for one's already designed or a good formula to go by to build my
>own.
>
>Thanks,
>Mitchell
>
Hi Mitchell,

Why do you need that many elements?

When higher gains are sought, other approaches are more effective, for a given form factor, than a Yagi-Uda.

What gain/beam do you need?

73,
Chip N1IR

# 1158. Re: WiMAX 802.16a specification

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-23 11:44:22 UTC
From: fractenna@aol.com
Message-ID: <20041023074422.18151.00005108@mb-m03.aol.com>
Source record: 87753

>On Fri, 22 Oct 2004 02:03:37 GMT, Richard Clark <kb7qhc@comcast.net>
>wrote:
>
>>We need to outsource more boardroom jobs to those with quicker minds

---

What's YOUR job, Richard? You seem to have an awful lot of free time on your hands...please give us some public insight on your perspective on your own employment.

73,
Chip N1IR

# 1159. Re: Why do WiFi basestations use two antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-23 12:27:01 UTC
From: fractenna@aol.com
Message-ID: <20041023082701.18151.00005113@mb-m03.aol.com>
Source record: 87754

>
>uh guys!! this is a ham radio news group!!!!!
> If you cant get along on the net then why would you be a ham ...
>Your not acting like the diplomatic sort of people i wanted to be like when
>i was younger.
>I wanted to be a ham to promote the hobby not destroy it..
>this is childish....
>cmon guys

They use two antennas to implement spatial diversity. The system does a switched /RSSI when it gets a fade on the signal, on the hopes (usually pretty good) that the other antenna sees a peak rather than a null.

73,
Chip N1IR

# 1160. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-23 12:42:45 UTC
From: fractenna@aol.com
Message-ID: <20041023084245.18151.00005114@mb-m03.aol.com>
Source record: 87755

>Hi John,
>
>Historically, there have been MANY authors, all making claims to be
>different persons OR there has been ONE author claiming to be
>different persons FROM ONE account that is not a professional address.
>ALL supposed authors claim to be working for a commercial business
>selling fractal antennas. However, this is strictly speculation as
>absolutely no evidence of this commercial pursuit is apparent in ANY
>correspondence.
>
>Stilted or otherwise, the confusion resides at one common point
>originating these messages. In just the past week I've seen several
>messages posted by two sides of a dialogue BOTH claiming to be the
>same correspondent from different addresses. Signatures at the bottom
>of a post are a wholly insecure means of asserting identity. Further,
>individuals attempting to draw you into commercial correspondence
>through non-commercial addresses (accounts) are the leading form of
>Phishing. I hope this last term is not lost on you.
>
>73's
>Richard Clark, KB7QHC
>

Hi Richard,

This READS like language, but doesn't really say anything, IMO.

Please ID the "techno-fraud" which you expose in your fractal antenna website--that's your word. And what patents do you claim your amateur web page has managed to render useless? You said this too.Hmmm:-)?

And what exactly is this early 1800's prior art you allude to that renders fractal antennas as public domain? Perhaps you have a knowledge base which extends before Hertz, and even Maxwell:-)?

I am sure I am not the only one who would share the fascination of details to your claims.

You are not a man short of words; use a few concise words to flesh it out, kindly.

73,
Chip N1IR

# 1161. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-23 13:29:40 UTC
From: fractenna@aol.com
Message-ID: <20041023092940.28660.00001309@mb-m05.aol.com>
Source record: 87756

>>European company is under the same conditions (and it turns out that they
>>have
>>been following these exchanges).

That's nice.

For sixty million, apparently, I imagine they may send you antennas for free:-)

Unfortunately you can't count investor money as sales revenue...

Are they profitable yet? I know a company that is:-)

73,
Chip N1IR

## 1162. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-23 13:37:03 UTC
From: Jer <scams@fraudwatchinternational.com>
Message-ID: <2tv540F23t6u6U1@uni-berlin.de>
Source record: 87757

STUFF IT, DIPSHIT!

"Fractenna" <fractenna@aol.com> wrote in message
news:20041023084245.18151.00005114@mb-m03.aol.com...
> You are not a man short of words; use a few concise words to flesh it out,
> kindly.
>
> 73,
> Chip N1IR

# 1163. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-23 14:09:51 UTC
From: John Smith <kd5yikes@mindspring.com>
Message-ID: <PCted.4917$KJ6.86@newsread1.news.pas.earthlink.net>
Source record: 87758

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:bkrjn0h9uvd80av816sam6fet3akli11hm@4ax.com...
> On Sat, 23 Oct 2004 04:56:36 GMT, "John Smith"
> <kd5yikes@mindspring.com> wrote:
>>> Phishing. I hope this last term is not lost on you.
>>
>>It is not. Thanks.
>
> Hi John,
>
> Sorry, it occured to me through my reading double negatives that I
> appear to have taken you for being a neophyte. On reflection, I can
> appreciate the warnings were overkill.
>
> 73's
> Richard Clark, KB7QHC

No apologies necessary. I don't mind being taken for a neophyte, just please
don't take me for an expert.

Thanks for the interesting insight.

John

# 1164. Re: ARX2B Ringo Ranger

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-23 16:18:48 UTC
From: Howard <mensch90249@yahoo.com>
Message-ID: <7k0ln0lfq3t2snpk6t9pd7a41l4nohp05r@4ax.com>
Source record: 87759

On 23 Oct 2004 04:27:21 GMT, theplanters95@aol.comnospam
(Theplanters95) wrote:

>If the radials are to decouple feedline radiation, then why wouldn't coax
>coiled into a choke balun work? Maybe 6 or 10 turns at about 5 or 6 inches?
>
>Randy

You could give it a try and see how it works for you, definitely
simple to do. Just because Cushcraft uses the 1/4 wave coax & radials
doesn't make that the 'only' solution. Another possibility is a
ferrite balun; type 43 ferrite torroids with an ID to provide a snug
fit over the coax. This approach is shown on some of the variation of
the J-pole so if you do a search for that antenna you may find a
starting point for the number/size of the torroids.

Howard
KE6something or other

# 1165. Re: Funky CNN Story...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-23 16:37:35 UTC
From: Benton <bbonney-dont-spam-me@cfl.rr.com>
Message-ID: <ir1ln09jgv98puq4ojfn3r5p6aa44ovpt8@4ax.com>
Source record: 87760

Makes perfect sense. The US and Russia have Sarsat/Cospas satellites
that monitor international distress frequencies (121.5, 234.0, 406
MHz) and alert regional search centers. This system can detect and
report much faster than random aircraft monitoring enroute. See
http://www.faa.gov/ATpubs/AIM/Chap6/aim0602.html.

73 de Benton, W4PE

On Mon, 18 Oct 2004 21:06:29 -0300, "Bob McBeth"
<BobbyMcBeth_NotReally_@HotMail.com> wrote:

>"Fractenna"
>www.cnn.com/2004/SHOWBIZ/TV/10/18/odd.television.reut/index.html
>
>One thing doesn't make sense.
>
>If it was emitting on 121.5 MHz, then why was it first picked-up by a
>satellite, as opposed to the dozens of aircraft that would have been passing
>overhead in the time before the satellite passed over ?
>
>The Truth !! - as filtered through journalism students <sigh>.
>
>

# 1166. Re: Incorporating a Terk TV-5 as part of a beam?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-23 16:57:05 UTC
From: Richard Lane <rqlhgl@ieee.org>
Message-ID: <417a8e90@sys13.hou.wt.net>
Source record: 87761

Bob Bob wrote:

> Hi Richard
>
> The elements will also lower
> the antenna input impedence. This may or may not be a problem to the
> following amplifier.
>
>
> Cheers Bob VK2YQA
>

Bob, I am in Port Townsend Wa and attempting to recieve PBS ch9 located in Seattle some 40 miles away, incidently ch13 (Fox) 38 miles comes in fine with the Terk alone but I am not enamoured of Murdoch's political bias even though he was a fellow Aussie.
Dick

## 1167. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-23 17:23:43 UTC
From: derswede@aol.comspam.com
Message-ID: <20041023132343.18077.00005746@mb-m03.aol.com>
Source record: 87762

>>>European company is under the same conditions (and it turns out that they
>>>have
>>>been following these exchanges).
>
>That's nice.
>
>For sixty million, apparently, I imagine they may send you antennas for
>free:-)
>
>Unfortunately you can't count investor money as sales revenue...
>
>Are they profitable yet?

Don't know, don't care now. As I don't get a commission on their sales, I've gone on to another project. I do know that they have promised samples to them by Nov. 15th for the RFID tags.

Off to LA and another project now. BTW, never did get that "commercial" application info.....

A

## 1168. Re: ARX2B Ringo Ranger

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-23 17:28:54 UTC
From: Crazy George <muNnscOh@attSglPobaAl.nMet>
Message-ID: <417a9813_4@news1.prserv.net>
Source record: 87764

The mast is just as much a problem as the feedline, and difficult to coil up.

--
Crazy George
Remove N O and S P A M imbedded in return address
"Theplanters95" <theplanters95@aol.comnospam> wrote in message
news:20041023002721.05810.00004298@mb-m27.aol.com...
> If the radials are to decouple feedline radiation, then why wouldn't coax
> coiled into a choke balun work? Maybe 6 or 10 turns at about 5 or 6 inches?
>
> Randy

# 1169. Re: 2,6 & 10 Mtr Vertical?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-23 17:32:53 UTC
From: Jimmie <Gfender@carolina.rr.com>
Message-ID: <9Bwed.4642$hr3.207786@twister.southeast.rr.com>
Source record: 87763

"Lou" <FFSTA17NO@SPAMACESS995.COM> wrote in message
news:JrJdd.6017$Ae.3475@newsread1.dllstx09.us.to.verio.net...
> I can't say how good it was as to quality or actual usage results, but MFJ
> made an antenna that was as you are asking about. I think it covered a few
> more bands too. Whether they still make it or not, I don't know.
>
> Lou
>
> "Radio Man" <puns@verizon.net> wrote in message
> news:RCIdd.7880$n81.905@trnddc08...
> > Is it possible to construct or purchase a 2, 6 & 10 mtr
> > vertical?
> >
>
>
I made a J-pole antenna for 10 meters a while back. Dont tthink there is any
reason you couldnt build a "copper Cactus" type of antenna that includes
these three bands.
There is plenty of info on this type of antenna on the net. I have not seen
any that include 10M though. Usually 6,2 and 432. Should be doable though.

## 1170. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-23 17:36:42 UTC
From: fractenna@aol.com
Message-ID: <20041023133642.10984.00002222@mb-m14.aol.com>
Source record: 87765

>Off to LA and another project now. BTW, never did get that "commercial"
>application info.....
>

Never got the form from you....can't proceed without info.

73,
Chip N1IR

# 1171. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-23 17:42:34 UTC
From: Jimmie <Gfender@carolina.rr.com>
Message-ID: <eKwed.4644$hr3.209514@twister.southeast.rr.com>
Source record: 87766

"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:41757809_4@127.0.0.1...
> Jimmie wrote:
> > What, Coililng the wire has nothing to do with how well it does or does
not
> > radiate, only with how the radiation is summed into the total field. The
> > current distribution in a loading coil should be very similar to the
current
> > distribution in the secton of antenna it is replacing.
>
> Actually, coiling the wire tends to reduce the far-field radiation
> because much of the near-field(s) cancel each other. The currents
> on each side of the coil are traveling the opposite direction in
> much the same way they do in a transmission line. However, that
> doesn't mean the currents at the bottom and top of the coil are
> identical. The magnitude of the total current at the bottom and
> top of the coil depends in large amount on the phase shift through
> the coil.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>
Just because it is canceld in the far field does not mean the coil did not
radiate. I would not even say it is canceled in the far field although this
is a convenent way of looking at radiation. All you can really say for sure
is that the out of phase voltages in the receiving antenna combine
destructively.

> -----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet
News==----
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Newsgroups
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# 1172. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-23 17:49:17 UTC
From: Jimmie <Gfender@carolina.rr.com>
Message-ID: <xQwed.4645$hr3.210404@twister.southeast.rr.com>
Source record: 87767

"Richard Harrison" <richardharrison@webtv.net> wrote in message
news:8844-41758666-149@storefull-3253.bay.webtv.net...
> Jimmie wrote:
> "Coiling the wire has nothing to do with how it does or does not
> radiate,---."
>
> Good. Just leave your antenna rolled up.
>
> Best regards, Richard Harrison, KB5WZI
>
And it will radiate, assuming no other changes but the geometry of the
antenna.. When the out of phase componts of the radiation reach a receiving
antenna they will destructivly combine.

# 1173. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-23 18:00:19 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <T_wed.17551$nj.12615@newssvr13.news.prodigy.com>
Source record: 87768

Cecil Moore wrote:
> Tom Donaly wrote:
>
>> Cecil, I'll believe you know something about loading coils when you
>> go back to school and learn something about basic classical
>> electromagnetic theory.
>
>
> Been there - done that - even got the T-shirt with Maxwell's
> equations on it. I suspect that your university never taught
> the real thing.
>
>> As it stands, all you can do is make one
>> unsupported statement after another and hope someone is gullible
>> enough to believe you.
>
>
> I supported my statements with examples. Strangely enough, you
> haven't posted any technical disagreement with my examples. All
> you do is take potshots based on nothing except your feelings.
>
> It's impossible to argue with you on a technical basis because you
> have not posted anything technical. Do you disagree that the Z0
> of a single #16 wire located 24 ft. above ground is ~600 ohms? Do
> you disagree that such a wire can support standing waves whether
> used as a transmission line or as an antenna?
>
> Please post what you find technically wrong with my examples (all
> based on valid distributed network reflection models) which I
> learned in the 50's from "Field and Waves in Modern Radio" by Ramo
> and Whinnery and a later edition of the same book in graduate school.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>
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I'm not going to waste my time arguing with you , Cecil; as you say,
been there, done that. I know there are people in the past who have
attempted to characterize antennas as transmission lines. It's an

old, hoary method. You have a copy of Balanis. He has references you can look up to see how close your ideas are to the truth.
Nope, I don't need to argue. I have a wife who is always willing and ready to provide arguing services whenever I need them. I don't need you.
73,
Tom Donaly, KA6RUH

# 1174. Re: Help conductive anti ox paste source?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-23 18:58:01 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <LPxed.190849$as2.92540@bignews3.bellsouth.net>
Source record: 87769

"Fjx1" <fjx1@aol.comnospam> wrote in message
news:20041022005528.04966.00004948@mb-m24.aol.com...
> I need some of that anti ox conductive paste you use when assembling yagi
> elements. I live on Long Isalnd. Is it available under some brand name at
home
> depot or electrical supply shops. Don't know what to call it to a non ham.

NoAlox is one brand name (Ideal Industries) - in the Electrical dept at
Lowes, etc
Penetrox is another.
It's used for aluminum Service Entrance Cable connections - like at the
meter -

---
Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.781 / Virus Database: 527 - Release Date: 10/21/2004

# 1175. Re: Gain per unit length of boom

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-23 18:58:46 UTC
From: Chuck <wa7rai@raibeam.com>
Message-ID: <DCyed.11048$6P5.6576@okepread02>
Source record: 87674

Richard Harrison <richardharrison@webtv.net> wrote in message
news:8843-417981AA-1066@storefull-3253.bay.webtv.net...
> "Hence, a
> considerable reduction in radiating efficiency may result from the
> presence of any loss resistance, (The radiatiation resistance drops as
> spacing shrinks.)" See "Antennas" edition 3 for close spaced antennas.
>
> Best regards, Richard Harrison, KB5WZI
>

Hi Richard,

Indeed. And Kraus' speculation in this
regard has been the basis for some
debate, if I recall.

It is my opinion that .1 lambda spacing
has been somewhat established as
optimum spacing for a 2 el yagi with a
director - and I get the impression that
this is the basic structure that Art is
using as a benchmark.

Perhaps the next step is to determine
whether the modeled gain Art is getting
is a result of artifacts or not.

73 de Chuck, WA7RAI

# 1176. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-23 19:30:48 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <417aaf86_4@127.0.0.1>
Source record: 87671

Jimmie wrote:
> Just because it is canceld in the far field does not mean the coil did not
> radiate.

It is generally accepted that if RF energy doesn't escape to the far-field, that energy is not "radiated". Energy can appear in the near-field around a wire without being "radiated".

> I would not even say it is canceled in the far field although this
> is a convenent way of looking at radiation. All you can really say for sure
> is that the out of phase voltages in the receiving antenna combine
> destructively.

If the fields combine destructively in the near-field, that field energy is returned to the system and never reaches the receiving antenna in the far field. That's how transmission lines are supposed to work and why the spacing between the two conductors needs to be negligible compared to a wavelength.

The near-balanced currents on each side of a coil, traveling in opposite directions, cause destructive interference in the near field, thus limiting the amount of energy radiated by the coil. An electrical 1/4WL helical antenna radiates slightly less RF than does a 1/4WL straight wire. That implies the amount of radiation from an air-core coil is slightly less than from a wire the same overall length as the coil.
--
73, Cecil http://www.qsl.net/w5dxp

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# 1177. Re: How to tune UHV-6

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-23 19:33:02 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <I_mdnRjusvQjLOfcRVn-ug@comcast.com>
Source record: 87770

"Estel J. Hines" <ejhines@comcast.net> wrote in message
news:W_Sdnch3LZqYBuTcRVn-sg@comcast.com...
>I have the Comet UHV-6, and the instructions don't say how it should be
>tuned (sequence, etc.).
>
> It has 440/2 meter/6 meter in the basic configuration, and I am having
> trouble getting the right swr on it, I have an swr meter.
>
> Could someone tell me which sequence should be used?
>
> Thanks for any help,
>
> Estel J. Hines
Unless somebody knows better, the most common sequence would be highest
frequency first, lowest frequency last. I presume you have this mounted on a
car. Make sure you have a good ground connection.

Tam/WB2TT

# 1178. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-23 19:42:17 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <417ab23a_4@127.0.0.1>
Source record: 87672

Jimmie wrote:
> And it will radiate, assuming no other changes but the geometry of the
> antenna.. When the out of phase componts of the radiation reach a receiving
> antenna they will destructivly combine.

If it actually radiates and if that radiation destructively combines
at one receiving antenna, then radiation must constructively combine
at another (potential) receiving antenna, or else the conservation of
energy principle would be violated. Any far-field destructive interference
event must be exactly balanced by an equal magnitude constructive
interference event at some other location in the far-field. If there is
a receiving antenna there, it will experience gain over the first location.

And a coiled up antenna is likely to experience a lot of I^2*R losses.
--
73, Cecil http://www.qsl.net/w5dxp

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# 1179. Re: Gain per unit length of boom

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-23 19:58:11 UTC
From: Chuck <wa7rai@raibeam.com>
Message-ID: <DCyed.11049$6P5.8562@okepread02>
Source record: 87673

aunwin@insightbb.com <aunwin@insightbb.com@insightbb.com> wrote in message
news:oYeed.289823$MQ5.38322@attbi_s52...
> YES

Hi Art,

To be honest, I suspect you will not
find much data IRT to what you are
doing here. However, I suggest
making some effort to determine if the
extra gain you are seeing in the
models are a result of artifacts or not,
would be helpful.

If you haven't already done do, I would
be trying frequency sweeps over a
limited bandwidth, and scaling them to
higher frequencies to see if the results
remain consistent. If not, this could be
an indication of artifacts.

I get the impression you are making
physical models to test as well.

Perhaps scaling to a much higher freq,
say 50 or 145 mHz or so, would make
FS tests more manageable.

The goal, is to simply determine if the
gain of the experimental structure is
greater than that of the benchmark
(the 2 el yagi) - measuring the exact
amount, should be of no real concern
at this point.

73 de Chuck, WA7RAI

# 1180. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-23 20:06:02 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <417ab7cf_4@127.0.0.1>
Source record: 87675

Tom Donaly wrote:
> I'm not going to waste my time arguing with you , Cecil; as you say,
> been there, done that.

Don't want to argue, Tom. I just want you to make a posting that
contains some iota of technical content. My ten-year-old grand-neice
could easily have thought up your last dozen (mostly ad-hominem) postings.

> I know there are people in the past who have
> attempted to characterize antennas as transmission lines. It's an
> old, hoary method. You have a copy of Balanis. He has references you
> can look up to see how close your ideas are to the truth.

Since you brought up Balanis, here are some quotes from Chapter 10 of
his book that should impress you:

"The sinusoidal current distribution of long open-ended linear antennas
is a standing wave constructed by two waves of equal amplitude and 180
deg phase difference at the open-end TRAVELING IN OPPOSITE DIRECTIONS
along its length" page 488 (emphasis mine)

"THE CURRENT AND VOLTAGE DISTRIBUTIONS ON OPEN-ENDED WIRE ANTENNAS ARE
SIMILAR TO THE STANDING WAVE PATTERNS ON OPEN-ENDED TRANSMISSION LINES."
Page 488 (emphasis mine)

"Standing wave antennas, such as the dipole, can be analyzed as traveling
wave antennas with waves propagating in opposite directions (forward and
backward) and represented by traveling wave currents If and Ib." page 489

Uhhhhh Tom, following Balanis' direction is EXACTLY what I have been doing.
Since you disagree with Balanis, it appears that you have never cracked
open his book. I, OTOH, have attended Balanis' antenna classes at ASU
and worked hand in hand with him on a joint Intel-ASU project.
--
73, Cecil http://www.qsl.net/w5dxp

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# 1181. Re: Patents

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-23 20:10:24 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <417ab8cd_4@127.0.0.1>
Source record: 87676

Reg Edwards wrote:
> There is an antenna with dimensions as small as 1 / 70th ( 1.43 percent) of
> a wavelength which has a radiating efficiency as high as 98.0 percent.

Somewhere around here, I have the details on a mobile antenna that is
about one foot high. It was mounted on top of a van and had a top hat
that hovered one foot above the top of the van and was exactly as big
as the top of the van. It is supposed to be one of the most efficient
mobile antenna radiators of all time.
--
73, Cecil http://www.qsl.net/w5dxp

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# 1182. Re: Hy-Gain 18AVT/WB-S

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-23 20:59:24 UTC
From: ON5MJ <my_call_sign@skynet.be>
Message-ID: <417ac621$0$665$ba620e4c@news.skynet.be>
Source record: 87677

I have one in my cellar but completely wraped. I remember its length is about 30 cm or a bit less so the manual writing could be right.

73 de ON5MJ - Jacques.

# 1183. Re: ARX2B Ringo Ranger

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-23 21:04:21 UTC
From: "NN7Kex<NOSPAM>k7zfg" <"NN7Kex<NOSPAM>k7zfg"@sbcglobal.net>
Message-ID: <pHzed.33936$QJ3.30511@newssvr21.news.prodigy.com>
Source record: 87678

Howard wrote:
> On 23 Oct 2004 04:27:21 GMT, theplanters95@aol.comnospam
> (Theplanters95) wrote:
>
>
>>If the radials are to decouple feedline radiation, then why wouldn't coax
>>coiled into a choke balun work? Maybe 6 or 10 turns at about 5 or 6 inches?
>>
>>Randy
>
>
> You could give it a try and see how it works for you, definitely
> simple to do. Just because Cushcraft uses the 1/4 wave coax & radials
> doesn't make that the 'only' solution. Another possibility is a
> ferrite balun; type 43 ferrite torroids with an ID to provide a snug
> fit over the coax. This approach is shown on some of the variation of
> the J-pole so if you do a search for that antenna you may find a
> starting point for the number/size of the torroids.
>
> Howard
> KE6something or other
Also, consider that those radials arn't there just to decouple the coax!
they are also there to form a 1/4 wave ground radial, 1/2 wave down the pipe
to form a counterpoise for the Ringo- Something that the toroid would NOT do,
if memory serves me correctly!
Jim NN7K

--
To reply, remove the <NOSPAM>

# 1184. Re: Why do WiFi basestations use two antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-23 21:15:51 UTC
From: Frank Turner-Smith G3VKI <g3vki@turner-smith.co.uk>
Message-ID: <2u003tF2505dhU1@uni-berlin.de>
Source record: 87679
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,uk.radio.amateur,uk.tech.broadcast

```
<lucifer@eternal-flames.gov> wrote in message
news:b1kkn0tn7bdgs0960l9ntqtobvab5g61pq@4ax.com...
> On Sat, 23 Oct 2004 10:46:43 +0100, "Frank Turner-Smith G3VKI"
> <g3vki@turner-smith.co.uk>, paused briefly between playing with his
> doll's house, to write:
>
>>"Airy R. Bean, village idiot" <me@privacy.net> emptied the contents of her
>>tampon into message news:2tujenF24ua7tU1@uni-berlin.de...
>>>I think that you misunderstand what is being said.
>>>
>>> Ham Radio is not a "hobby"; that is a description of
>>> CB Radio.
>>>
>>< large quantity of moronic, repetitious garbage snipped >
>>
>>YAWN, now run away and play on the M4, there's a good Anus
>
> What have you got against people driving on the M4...
> Apart from in those bleedin' bus lanes?
>
>
I meant the bit of the M4 that passes Chippenham, not the bit some twat put
a bus lane down the middle of.
Let me know when Airy's due to play on the Chippenham stretch and I
volunteer to be the truck driver that squashes him.
--
;>)
73 de Frank Turner-Smith G3VKI - mine's a pint.
http://turner-smith.co.uk
```

# 1185. Re: Gain per unit length of boom

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-23 22:04:28 UTC
From: "aunwin@insightbb.com"
Message-ID: <MzAed.448084$Fg5.138935@attbi_s53>
Source record: 87680

"Chuck" <wa7rai@raibeam.com> wrote in message
news:DCyed.11049$6P5.8562@okepread02...
>
> aunwin@insightbb.com <aunwin@insightbb.com@insightbb.com> wrote in message
> news:oYeed.289823$MQ5.38322@attbi_s52...
> > YES
>
> Hi Art,
>
snip.
>
> If you haven't already done do, I would
> be trying frequency sweeps over a
> limited bandwidth, and scaling them to
> higher frequencies to see if the results
> remain consistent. If not, this could be
> an indication of artifacts.

I'l think about that

>
> I get the impression you are making
> physical models to test as well.
>
> Perhaps scaling to a much higher freq,
> say 50 or 145 mHz or so, would make
> FS tests more manageable.
>
> The goal, is to simply determine if the
> gain of the experimental structure is
> greater than that of the benchmark
> (the 2 el yagi) - measuring the exact
> amount, should be of no real concern
> at this point.
>
> 73 de Chuck, WA7RAI
>
Chuck, I am an experimentor, I am not advocating changing the aproach to
antennas by amateurs
When light weight fishing poles on E Bay became less than a dollar a foot
I was able to get rid of most of my aluminum stock.When I got Beasely's
NEC Pro program all prior constraints regarding antenna experimenting
were removed (ala aluminum or copper foil). Last year I made a 160M dipole
that was rotatable
and frequency controlable with moveable bandwidth, I succeeded, but it still

was a large structure
and winter provided many unwanted occasions to repair the unexpected. This winter I am being
less ambitious and am confining myself to a 8 foot boom. First I was to check if more elements
can improve the gain. From prior experiments I knew that feed impedance can be change upwards
by placing an element close the rear of the feed dipole which is contrary to the ARRL handbook.
I also was aware from previous experiments that element diameter was very important if one is
not controlled by mechanical requirements. I also knew from reading that in stacking when
only the bottom array was being used one obtained protection from static noise so this would
also be a good opportunity to have one element say 30 inches higher than the rest on the mast
which would be part of the original array to give room for experimentation.
My present model has a gain of 13 dbi at a ht of 820 inches over perfect ground and is less than 2:1
across the audio portion of 20 M. The number of elements is six which suggest things are heavy but with
fishing poles it is extremely light. ( note, fishing poles when ice laden bend as if it had caught a fish and
the ice then slides off) I have not used the f/b to rest upon as I believe that the lower lobe at the rear is not
important where the second lobe is when considering direction of propagation.
So thats it Chuck, I enjoy myself with playing with antennas to find out things for myself as I have
more options at hand that the ARRL have not considered as yet and thus are not held hostage
to the knoweledge of the many psuedo experts who thou knoweledgable about the past which is very
usefull have decided that there is no future since all is known. By the way with the advent of cheap cameras
< $30 it is easy to place a SWR meter or power meter right at the feed point and eliminate questions regarding
transmission lines.
Regards
Art

# 1186. Re: Hy-Gain 18AVT/WB-S

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-23 22:26:51 UTC
From: w9gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <LUAed.415001$mD.311751@attbi_s02>
Source record: 87681

"ON5MJ" <my_call_sign@skynet.be> wrote in message
news:417ac621$0$665$ba620e4c@news.skynet.be...
>I have one in my cellar but completely wraped. I remember its length is
> about 30 cm or a bit less so the manual writing could be right.
>
> 73 de ON5MJ - Jacques.
>

30 cm (metric) converts to 11.8 inches (english) ..

that's close enough to 11.25 inches in the handwritten note

gb

# 1187. Re: Is lighting nuts?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-23 22:38:12 UTC
From: raiar@bbs.galilei.com.nospam
Message-ID: <417add0e.389959593@news.galilei.com>
Source record: 87682

Hi Richard

OK, I'll take it that way!

YOU didn't know my father though, if it wasn't the way great grandpa
did it, it wasn't done right, hi hi.....

TTUL
Gary

# 1188. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-23 23:45:11 UTC
From: k3bu@aol.comNoUsama
Message-ID: <20041023194511.21100.00002522@mb-m07.aol.com>
Source record: 87683

> Nope, I don't need to argue. I have a wife who is always willing
>and ready to provide arguing services whenever I need them. I don't
>need you.
>73,
>Tom Donaly, KA6RUH
>
>

Cecil, fuggetaboutit, don't waste your time, looks like this is one of those smart alec trollers. Who cares what they "know".

Thanks for your contribution to the subject. Looks like I should put the article together, looks like misguided "experts" are confusing the issue. I hope to find some time now, WX is getting about right, time to get out the gadgets and some real life measurements and modeling helixes in EZNEC.

73 Yuri, K3BU

# 1189. Re: Funky CNN Story...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-23 23:57:36 UTC
From: Blober McBlober <NotAnyoneYouKnow@Hotmail.com>
Message-ID: <KdCed.7090$8S7.13216870@news.sisna.com>
Source record: 87684

>> If it was emitting on 121.5 MHz, then why was it first
>> picked-up by a satellite, as opposed to the dozens of
>> aircraft that would have been passing overhead in the
>> time before the satellite passed over ? The Truth !! -
>> as filtered through journalism students <sigh>.

"Benton"
> Makes perfect sense. The US and Russia have
> Sarsat/Cospas satellites that monitor international
> distress frequencies (121.5, 234.0, 406 MHz) and
> alert regional search centers. This system can detect
> and report much faster than random aircraft monitoring
> enroute. See
> www.faa.gov/ATpubs/AIM/Chap6/aim0602.html.

The malfunctioning TV was reportedly 'transmitting' on 121.5 MHz. Detecting 121.5 MHz by satellite is done from Low Earth Orbit (LEO) and depends upon waiting for a satellite pass (typically several hours - not instantaneously). I would have thought that there was more air traffic (airplanes) over Oregon than that - most places have lots of airplanes passing overhead nearly constantly.

Perhaps it was his exact location and blockage by mountains. Maybe the timing was coincidental. OK then...

## 1190. Re: Patents

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-24 00:01:06 UTC
From: Blober McBlober <NotAnyoneYouKnow@Hotmail.com>
Message-ID: <%gCed.7091$CM7.13026377@news.sisna.com>
Source record: 87685

"Cecil Moore"
> ...supposed to be one of the most efficient
> mobile antenna radiators of all time.

Is there a missing "low HF" in the above ?

My 5/8-wave mag-mount is fairly efficient on 2m.

# 1191. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-24 00:49:09 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <417afa29_4@127.0.0.1>
Source record: 87686

Yuri Blanarovich wrote:
> Cecil, fuggetaboutit, don't waste your time, looks like this is one of those
> smart alec trollers. Who cares what they "know".

Looks like Tom would rather argue with his wife than with Balanis or me.
(I don't blame him for that.) I had relatively long discussions with Balanis
and he personally agreed with everything I have posted although he didn't
go to such lengths in his book.

> Thanks for your contribution to the subject. Looks like I should put the
> article together, looks like misguided "experts" are confusing the issue.
> I hope to find some time now, WX is getting about right, time to get out the
> gadgets and some real life measurements and modeling helixes in EZNEC.

Who's going to publish it? I spent a lot of time preparing an article on
what happens at a match point and QEX refused to consider publishing
anything that disagreed in the slightest with Dr. Best who denied there
is such a thing as interference at a match point. (Hint: Without interference,
a match is impossible in a system with reflections.) There's a good-old-boys
network in amateur radio. If you are politically incorrect within the ARRL
political power structure, you are black-balled from publishing. It doesn't
matter if you are technically correct. The current through a loading coil
is constant by definition in that good-old-boys network. Forget reality.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

# 1192. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-24 01:25:33 UTC
From: derswede@aol.comspam.com
Message-ID: <20041023212533.08741.00002348@mb-m13.aol.com>
Source record: 87687

>Never got the form from you....can't proceed without info.
>
>73,
>Chip N1IR

Chip.....your comment was:

Subject: Re: Fractal Antennas
From: fractenna@aol.com (Fractenna)
Date: 10/20/2004 2:53 AM Eastern Standard Time
Message-id: <20041020025326.08576.00002636@mb-m07.aol.com>

>Who sells them? "Commercial" indicates that such antennas are in production
>and being offered for sale

Yes. Drop me an e-mail and I'll be happy to provide details.

73,
Chip N1IR>>

I emailed you, you have my email and you mentioned nothing about a form....Chip, all I asked for was "who sells fractal antennas commercially?" Is there a site which offers for sale an antenna which is based on fractal technology? Still would like to look at one, freq. not important. A web site URL would be nice. This is for my own interest, not to snipe at you. I'm an engineer (albeit microP), and enjoy keeping up with technology...read the info on your website, it is interesting, but still would like to see a third party site.

Regards;
A

# 1193. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-24 01:42:43 UTC
From: k3bu@aol.comNoUsama
Message-ID: <20041023214243.21100.00002528@mb-m07.aol.com>
Source record: 87689

>Who's going to publish it? I spent a lot of time preparing an article on
>what happens at a match point and QEX refused to consider publishing
>anything that disagreed in the slightest with Dr. Best who denied there
>is such a thing as interference at a match point. (Hint: Without
>interference,
>a match is impossible in a system with reflections.) There's a good-old-boys
>network in amateur radio. If you are politically incorrect within the ARRL
>political power structure, you are black-balled from publishing. It doesn't
>matter if you are technically correct. The current through a loading coil
>is constant by definition in that good-old-boys network. Forget reality.
>--
>73, Cecil http://www.qsl.net/w5dxp
>

100% QSL
we can give it a try, there is always internet and e-Books.
It is amusing to see two versions of current in loading coil in ARRL published books, one version in Antenna Book, Compendia and Handbook vs. other in ON4UN Low Band DXing.

73 Yuri, K3BU.us

# 1194. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-24 01:42:56 UTC
From: fractenna@aol.com
Message-ID: <20041023214256.17374.00002238@mb-m27.aol.com>
Source record: 87688

>I emailed you, you have my email and you mentioned nothing about a
>form....Chip, all I asked for was "who sells fractal antennas commercially?"
>Is there a site which offers for sale an antenna which is based on fractal
>technology? Still would like to look at one, freq. not important. A web
>site
>URL would be nice. This is for my own interest, not to snipe at you. I'm an
>engineer (albeit microP), and enjoy keeping up with technology...read the
>info
>on your website, it is interesting, but still would like to see a third party
>site.
>
>Regards;
>A
>

For many years, we kept a good deal of practical info on fractal antennas on that web site. However, after Summer 2001, as a prudent but voluntary precaution, we have consistently vetted inquiries and prevented unbridled dissemination. That this also apparently confuses the competition is an added bonus.

Unfortunately, hams--as hams-- no longer have access to that info.

If you saw my e-mail, you would be less puzzled.

73,
Chip N1IR

## 1195. Re: Help conductive anti ox paste source?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-24 02:39:00 UTC
From: Crazy George <muNnscOh@attSglPobaAl.nMet>
Message-ID: <417b18eb_3@news1.prserv.net>
Source record: 87690

Be sure you specify "Penetrox - A" which is for Aluminum. At one time, there were a half-dozen versions for different
applications, each with a different formulation. Some of the others contain Nickel, which is a no - no for RF, at least
if you want low intermod performance.

--
Crazy George
Remove N O and S P A M imbedded in return address
"Hal Rosser" <hmrosser@bellsouth.net> wrote in message
news:LPxed.190849$as2.92540@bignews3.bellsouth.net...
>
> "Fjx1" <fjx1@aol.comnospam> wrote in message
> news:20041022005528.04966.00004948@mb-m24.aol.com...
> > I need some of that anti ox conductive paste you use when assembling yagi
> > elements. I live on Long Isalnd. Is it available under some brand name at
> home
> > depot or electrical supply shops. Don't know what to call it to a non ham.
>
> NoAlox is one brand name (Ideal Industries) - in the Electrical dept at
> Lowes, etc
> Penetrox is another.
> It's used for aluminum Service Entrance Cable connections - like at the
> meter -
>
>
> ---
> Outgoing mail is certified Virus Free.
> Checked by AVG anti-virus system (http://www.grisoft.com).
> Version: 6.0.781 / Virus Database: 527 - Release Date: 10/21/2004
>
>

# 1196. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-24 02:49:31 UTC
From: derswede@aol.comspam.com
Message-ID: <20041023224931.25764.00002805@mb-m07.aol.com>
Source record: 87691

>Fractenna@aol.com wrote:
> For many years, we kept a good deal of practical info on fractal antennas on
>that web site. However, after Summer 2001, as a prudent but voluntary
>precaution, we have consistently vetted inquiries and prevented unbridled
>dissemination. That this also apparently confuses the competition is an
>added
>bonus.
>
>Unfortunately, hams--as hams-- no longer have access to that info.
>
>If you saw my e-mail, you would be less puzzled.

OK...I read the above...I also received the email....to put what you're saying into simple terms is that there are no commercial (non-proprietary) fractal antennas available on the commercial market. Thus, no "commercially available" fractal antennas. QED.

A

# 1197. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-24 02:59:49 UTC
From: fractenna@aol.com
Message-ID: <20041023225949.23043.00002483@mb-m12.aol.com>
Source record: 87692

>Thus, no "commercially available"
>fractal antennas. QED.

Andrew, this is amusing but rather silly.

Public domain does not go with "commercial" unless you are a Linux guy:-)

There are plenty of commercial fractal antennas available. Which one? Depends on the app.

You know how to pursue them. I told you how to proceed. I will not use this NG to sell you anything, my friend.

Have a pleasant weekend; we've exhausted our discussion on this forum.

73,
Chip N1IR

## 1198. Re: Help conductive anti ox paste source?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-24 02:59:50 UTC
From: "NN7Kex<NOSPAM>k7zfg" <"NN7Kex<NOSPAM>k7zfg"@sbcglobal.net>
Message-ID: <GUEed.18022$nj.6449@newssvr13.news.prodigy.com>
Source record: 87693

Crazy George wrote:

> Be sure you specify "Penetrox - A" which is for Aluminum. At one time, there were a
half-dozen versions for different
> applications, each with a different formulation. Some of the others contain Nickel, which
is a no - no for RF, at least
> if you want low intermod performance.
>
> --
> Crazy George
> Remove N O and S P A M imbedded in return address
> "Hal Rosser" <hmrosser@bellsouth.net> wrote in message
news:LPxed.190849$as2.92540@bignews3.bellsouth.net...
>
>>"Fjx1" <fjx1@aol.comnospam> wrote in message
>>news:20041022005528.04966.00004948@mb-m24.aol.com...
>>
>>>I need some of that anti ox conductive paste you use when assembling yagi
>>>elements. I live on Long Isalnd. Is it available under some brand name at
>>
>>home
>>
>>>depot or electrical supply shops. Don't know what to call it to a non ham.
>>
>>NoAlox is one brand name (Ideal Industries) - in the Electrical dept at
>>Lowes, etc
>>Penetrox is another.
>>It's used for aluminum Service Entrance Cable connections - like at the
>>meter -
>>
>>
>>---
>>Outgoing mail is certified Virus Free.
>>Checked by AVG anti-virus system (http://www.grisoft.com).
>>Version: 6.0.781 / Virus Database: 527 - Release Date: 10/21/2004
>>
>>
>
>
>

or "Lubriplate" is another-- Think this by folks in Portland ,OR. - also
make stuff called "COOL AMP" , both contain Silver - spendy, but was made
for restoreing bad contacts in fuse panels, and good conduction in other
electrical connectors-- Cool Amp ( http://www.cool-amp.com/page3.html ) is also great for

silver plateing circuit boards for uhf/microwave freqs! - NN7K

--
To reply, remove the <NOSPAM>

# 1199. Re: ARX2B Ringo Ranger

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-24 03:01:49 UTC
From: Howard <mensch90249@yahoo.com>
Message-ID: <056mn0l09ko8mubpl7b7kmf8babs0j2f7p@4ax.com>
Source record: 87694

On Sat, 23 Oct 2004 21:04:21 GMT, "NN7Kex<NOSPAM>k7zfg"
<"NN7Kex<NOSPAM>k7zfg"@sbcglobal.net> wrote:

>Howard wrote:
>> On 23 Oct 2004 04:27:21 GMT, theplanters95@aol.comnospam
>> (Theplanters95) wrote:
>>
>>
>>>If the radials are to decouple feedline radiation, then why wouldn't coax
>>>coiled into a choke balun work? Maybe 6 or 10 turns at about 5 or 6 inches?
>>>
>>>Randy
>>
>>
>> You could give it a try and see how it works for you, definitely
>> simple to do. Just because Cushcraft uses the 1/4 wave coax & radials
>> doesn't make that the 'only' solution. Another possibility is a
>> ferrite balun; type 43 ferrite torroids with an ID to provide a snug
>> fit over the coax. This approach is shown on some of the variation of
>> the J-pole so if you do a search for that antenna you may find a
>> starting point for the number/size of the torroids.
>>
>> Howard
>> KE6something or other
>Also, consider that those radials arn't there just to decouple the coax!
>they are also there to form a 1/4 wave ground radial, 1/2 wave down the pipe
>to form a counterpoise for the Ringo- Something that the toroid would NOT do,
>if memory serves me correctly!
>Jim NN7K

Hadn't fully looked at that aspect as this antenna is billed as a 1/2
wave not requiring a ground plane. Your memory does serve you
correctly though; the toroids, or a choke balun, would not perform
that function. Those I know who've used this antenna fall in two
camps, with no middle ground, some swear by it and others say it's a
nice antenna to use to mount their 1/4 wave verticals. Can't say from
direct experience though as I've never used one. For verticals I've
only used 1/4 and 5/8 wave antenna's and those have been home brewed
so easily I couldn't bring myself to pay for one.

Thanks for the added perspective Jim,
Howard KE6MAK

## 1200. Re: Help conductive anti ox paste source?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-24 03:04:55 UTC
From: "NN7Kex<NOSPAM>k7zfg" <"NN7Kex<NOSPAM>k7zfg"@sbcglobal.net>
Message-ID: <rZEed.18051$nj.7186@newssvr13.news.prodigy.com>
Source record: 87695

NN7Kex<NOSPAM>k7zfg wrote:

> Crazy George wrote:
>
>> Be sure you specify "Penetrox - A" which is for Aluminum. At one
>> time, there were a half-dozen versions for different
>> applications, each with a different formulation. Some of the others
>> contain Nickel, which is a no - no for RF, at least
>> if you want low intermod performance.
>>
>> --
>> Crazy George
>> Remove N O and S P A M imbedded in return address
>> "Hal Rosser" <hmrosser@bellsouth.net> wrote in message
>> news:LPxed.190849$as2.92540@bignews3.bellsouth.net...
>>
>>> "Fjx1" <fjx1@aol.comnospam> wrote in message
>>> news:20041022005528.04966.00004948@mb-m24.aol.com...
>>>
>>>> I need some of that anti ox conductive paste you use when assembling
>>>> yagi
>>>> elements. I live on Long Isalnd. Is it available under some brand
>>>> name at
>>>
>>>
>>> home
>>>
>>>> depot or electrical supply shops. Don't know what to call it to a
>>>> non ham.
>>>
>>>
>>> NoAlox is one brand name (Ideal Industries) - in the Electrical dept at
>>> Lowes, etc
>>> Penetrox is another.
>>> It's used for aluminum Service Entrance Cable connections - like at the
>>> meter -
>>>
>>>
>>> ---
>>> Outgoing mail is certified Virus Free.
>>> Checked by AVG anti-virus system (http://www.grisoft.com).
>>> Version: 6.0.781 / Virus Database: 527 - Release Date: 10/21/2004
>>>
>>>

>>
>>
>>
>
>
> or "Lubriplate" is another-- Think this by folks in Portland ,OR. - also
> make stuff called "COOL AMP" , both contain Silver - spendy, but was made
> for restoreing bad contacts in fuse panels, and good conduction in other
> electrical connectors-- Cool Amp ( http://www.cool-amp.com/page3.html )
> is also great for silver plateing circuit boards for uhf/microwave
> freqs! - NN7K
>
Oops- try Conducto-lube Same company, and silver bearing
http://www.cool-amp.com/page2.html NN7K

--
To reply, remove the <NOSPAM>

# 1201. Re: ARX2B Ringo Ranger

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-24 03:20:24 UTC
From: "NN7Kex<NOSPAM>k7zfg" <"NN7Kex<NOSPAM>k7zfg"@sbcglobal.net>
Message-ID: <YbFed.34013$QJ3.573@newssvr21.news.prodigy.com>
Source record: 87696

Howard wrote:

>
> Hadn't fully looked at that aspect as this antenna is billed as a 1/2
> wave not requiring a ground plane. Your memory does serve you
> correctly though; the toroids, or a choke balun, would not perform
> that function. Those I know who've used this antenna fall in two
> camps, with no middle ground, some swear by it and others say it's a
> nice antenna to use to mount their 1/4 wave verticals. Can't say from
> direct experience though as I've never used one. For verticals I've
> only used 1/4 and 5/8 wave antenna's and those have been home brewed
> so easily I couldn't bring myself to pay for one.
>
> Thanks for the added perspective Jim,
> Howard KE6MAK
>

Howard- one other perspective-- ' twas at ARRL convention , Many moons
ago, in Seattle (home of AEA , at that time)- They were selling their "NEW"
Isopole sntenna" . One of their bigger selling points was " NO extra radiation
from their antenna And, with a loop, and a # 43 lamp, demonstrated, side by
side with the Ringo Ranger --, and the lamp lite brightly, next to feedline, and
the MAST of it, while NO Light was exhibited from the feed, or mast of the Isopole.
This showed that there was no "Wasted power", Wrongful radiation from the coax
or mast to screw up the antenna pattern, and it was only a short time thereafter
that Cushcraft introduced the model II, with the ground radial on present day
versions! That was their answer to the problem of getting a consistant pattern
from these antennas! NN7K

--
To reply, remove the <NOSPAM>

# 1202. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-24 03:42:49 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <417b22cf$1_4@127.0.0.1>
Source record: 87697

Yuri Blanarovich wrote:
> It is amusing to see two versions of current in loading coil in ARRL published
> books, one version in Antenna Book, ...

Correction: Two versions in the ARRL Antenna Book. The first illustration,
Fig 7 on 16-4 in my 15th edition shows the current taper across the coil.
Fig 10 on 16-6 shows no current taper across the coil. :-)
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

# 1203. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-24 04:23:08 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <M6Ged.9394$6q2.8283@newssvr14.news.prodigy.com>
Source record: 87698

Cecil Moore wrote:
> Yuri Blanarovich wrote:
>
>> Cecil, fuggetaboutit, don't waste your time, looks like this is one of
>> those
>> smart alec trollers. Who cares what they "know".
>
>
> Looks like Tom would rather argue with his wife than with Balanis or me.
> (I don't blame him for that.) I had relatively long discussions with
> Balanis
> and he personally agreed with everything I have posted although he didn't
> go to such lengths in his book.

Suuuurrrre he did.

>
>> Thanks for your contribution to the subject. Looks like I should put the
>> article together, looks like misguided "experts" are confusing the issue.
>> I hope to find some time now, WX is getting about right, time to get
>> out the
>> gadgets and some real life measurements and modeling helixes in EZNEC.
>
>
> Who's going to publish it? I spent a lot of time preparing an article on
> what happens at a match point and QEX refused to consider publishing
> anything that disagreed in the slightest with Dr. Best who denied there
> is such a thing as interference at a match point. (Hint: Without
> interference,
> a match is impossible in a system with reflections.) There's a
> good-old-boys
> network in amateur radio. If you are politically incorrect within the ARRL
> political power structure, you are black-balled from publishing. It doesn't
> matter if you are technically correct. The current through a loading coil
> is constant by definition in that good-old-boys network. Forget reality.

And now there's a cabal of old boys conspiring against you and Yuri.
This just keeps getting better and better. For those who really want to
know the truth, go to Tom Rauch's web site and read about loading coils.
(He doesn't use the term "current drop" once."
73,
Tom Donaly, KA6RUH

# 1204. Re: Funky CNN Story...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-24 04:54:54 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <10nmdddtaj2llf7@corp.supernews.com>
Source record: 87699

Benton wrote:
> Makes perfect sense. The US and Russia have Sarsat/Cospas satellites
> that monitor international distress frequencies (121.5, 234.0, 406
> MHz) and alert regional search centers. This system can detect and
> report much faster than random aircraft monitoring enroute. See
> http://www.faa.gov/ATpubs/AIM/Chap6/aim0602.html.
>
> 73 de Benton, W4PE
>
> On Mon, 18 Oct 2004 21:06:29 -0300, "Bob McBeth"
> <BobbyMcBeth_NotReally_@HotMail.com> wrote:
>
>
>>"Fractenna"
>>www.cnn.com/2004/SHOWBIZ/TV/10/18/odd.television.reut/index.html
>>
>>One thing doesn't make sense.
>>
>>If it was emitting on 121.5 MHz, then why was it first picked-up by a
>>satellite, as opposed to the dozens of aircraft that would have been passing
>>overhead in the time before the satellite passed over ?
>>
>>The Truth !! - as filtered through journalism students <sigh>.
>>
>>
>
>
Actually the Russian COSPAS satellites have long since gone out of
operation and Russia has no plans to launch any future birds in this series.
The reported incident concerning the plasma TV transmitting a signal on
121.5 is one of the reasons that this frequency is being discontinued as
a primary frequency. Current regulations dictate the use of emergency
transmitters on a general frequency of 406 mhz. There are more than one
channel in use due to the large and growing number of ELT/EPIRB/PDR
units out there. For ground search the 406 units include a 121.5 low
power transmitter.
A properly registered and equipped 406 radio can reduce the search area
from a 20 mile radius to less than 5 miles. GPS augmentation can lead to
a radius of 15 meters or less.
I can't tell you how many false ELT tracks I have worked on as a Ground
Team Leader for the Civil Air Patrol but I did work on an actual track
as Incident Commander that resulted in the location of a double fatal
air crash. Aircraft and satellites reported the elt signal and my ground
team, guided in by aircraft, walked right up to the crash. In fact the

df operator tripped over the engine.
As to why the satellite picked up the elt and not an aircraft. The satellite is designed to pickup the elt and all the aircraft is doing is listening to 121.5. The commercial pilots have and do pick up a lot of elt signals. Usually the satellite has also picked up the same elt sometimes not.
Radio signals are funny things Sometimes you can walk right up to the transmitter, sometimes you have to work for it.

I encourage you to look into the Civil Air Patrol. We are the official USAF Aux. A full member in Homeland Security since before Homeland Security was popular.
Look up web page: www.cap.gov for information about CAP.

Dave Nagel, CPT CAP

## 1205. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-24 07:49:08 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0410232349.7c617e45@posting.google.com>
Source record: 87700

"John Smith" <kd5yikes@mindspring.com> wrote in message
>
> Hi, Richard -
>
> It isn't my information. It came off the Fractal Antenna Systems Web site.

Sounds about right...:/
>
> Nevertheless, it doesn't matter any more. I've killfiled him because I
> believe he has nothing of value to contribute to this group and is
> essentially trolling. This a game to him.

Pass go, and collect $200. MK

# 1206. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-24 08:57:08 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <q7Ked.71466$kz3.23653@fed1read02>
Source record: 87701

"Fractenna" <fractenna@aol.com> wrote in message
news:20041020094846.16183.00000853@mb-m01.aol.com...
> >Why? You posted the "commercial" claim in a public forum, please reply
> >to
>>same. I simply would like to know....if such antennas are commercially
>>available, then please provide a URL or sales site with the information on
>>the
>>antennas. As an engineer, I am always interested in new/different
>>technology,
>>thus the desire to look at a commercial unit application. Or are you
>>getting
>>Shakespearian on me?
>>
>>A
>
> Since I don't know who you are, it would be helpful to be professional and
> take
> it off line.
>
> Best wishes,
> Chip N1IR

No Chip; a professional is expected to defend his claims publicly. You may
now proceed to display your professionalism.

Ed
wb6wsn

# 1207. Re: Ham Radio Embarrassments

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-24 10:50:23 UTC
From: Steveo <moparholic@hotmail-nospam.com>
Message-ID: <20041024065023.464$5d@newsreader.com>
Source record: 87702
Cross-posted to: rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.amateur.antenna

"Leland C. Scott" <kc8ldo@arrl.net> wrote:
> By all means look up ND8V on QRZ. The reading is interesting to say the
> least.
>
> --
> Leland C. Scott
> KC8LDO
>
Hi Leland, that is pretty crazy stuff. I still don't think ND8V is as
big of a Ham Radio Embarrassment than N8WWM is. I didn't see anything
about ND having a felony record or making the Rain Report for jamming
repeaters..N8WWM is one very sick individual who has a court ordered
shrink, and can't hold onto an ISP.

N8WWM DOUGLAS
ADAIR present in court. Indigency Hearing held. MARY S.
SWANSON appointed as counsel.
Matter called for Probation Violation Hearing. Pursuant to
the request of Defendant, matter rescheduled for Probation
Violation Hearing on Friday, December 1, 2000 at 8:30 a.m.
Bond is reset at Supervised Own Recognizance.
JUDGE JAMES D. JENSEN
PARTY : D1 - ADAIR DOUGLAS W
11/22/2000 1 Title : ORD:ATTORNEY APPOINTED
Sue Swanson
PARTY : D1 - ADAIR DOUGLAS W
11/27/2000 1 Title : EVT:ORD FILE/JOUR$ THRU9/23/03
RESCHEDULED PV HEARING C-183-1483
PARTY : D1 - ADAIR DOUGLAS W
11/29/2000 1 Title : MIS:REC'D PSI/PV/CCV REPORT
PARTY : D1 - ADAIR DOUGLAS W
12/1/2000 1 Title : ORD: PV/PROBATION CONTINUED
671-01526 issued by JTS (PROBATION VIOL - PROBATION CONTINUE
Dated December 1, 2000. Court Reporter SANDRA CORPE
ordered. State of Ohio: ANNE KIRKHOPE. MARY S. SWANSON
present on behalf of the defendant. Defendant, DOUGLAS
ADAIR present in court.
Defendant having admitted to a probation violation, and
having waived oral hearing, defendant is found in violation
of probation.
Defendant having been convicted of the offense of Nonsupport
of Dependents, in violation of Revised Code Section
2919.21(A)(2), a felony of the 4TH degree.

Probation as ordered by this Court on April 11, 1997 is
ordered continued with the following added conditions: 1)
Seek and maintain gainful employment; 2) Defendant to seek
mental health counseling; 3) Execute wage withholding
agreement.
Defendant ordered to pay the costs of prosecution including
any fees associated with the appointment of counsel. It is
further ordered that the defendant pay any supervision fees
associated with being granted probation. Payment of
financial obligations shall be prioritized as restitution,
supervision fees, court costs, fines, and assigned counsel
fees.
JUDGE JAMES D. JENSEN
PARTY : D1 - ADAIR DOUGLAS W
12/5/2000 1 Title : EVT:JE FILE/JOUR $ THRU9/23/03
SENTENCE C-184-502
PARTY : D1 - ADAIR DOUGLAS W
3/15/2002 1 Title : COMMUNITY CONTROL TERMINATED
terminated unsuccesfully
PARTY : D1 - ADAIR DOUGLAS W

---
- ---

Or what about his abuse of the repeater system for which he was
spanked by the rain report?

N8WWM guilty of FCC violations. According to the FCC, N8WWM, Dog
Adair committed several violations over the air at the expense of the
Toledo Amateur Radio Club by utilizing their repeater to break the
law. The amateur club received a warning letter from the FCC
concerning Adair's violations and were told to take steps to make
certain the violations by Adair will not be repeated. Adair not only
hurt the entire image of amateur radio with his inexcusable behavior,
but damaged the reputation of yet another entity trying to further
the good of amateur radio. It's a shame when bad apples like these
make it so clubs can't even trust their own users to abide by the
rules they were sworn to uphold. Adair is also an infamous presence
on the internet. A google search of "N8WWM" reveals a peek into the
world of the individual identified as Adair. In addition to FCC
violations, Adair has, in the past, been accused of being a prolific
spammer, breaking several internet laws and violating several terms
of service agreements with internet providers.

---
---

# 1208. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-24 10:50:51 UTC
From: fractenna@aol.com
Message-ID: <20041024065051.02596.00002530@mb-m13.aol.com>
Source record: 87703

>No Chip; a professional is expected to defend his claims publicly. You may
>now proceed to display your professionalism.
>
>Ed

I do it at least 5 days a week Ed. Had a big example on Friday; guess you missed it.

I'm tired from the Red Sox win, but buoyed by the reverse of the Banmbino's curse!

Thanks for thinking of me though.

73,
Chip N1IR

# 1209. How reject QRM from the fence ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-24 11:30:05 UTC
From: Thierry <->
Message-ID: <417b924a$1@news.vo.lu>
Source record: 87704

Hi,

I friend of mine, ham, is handicapped and cannot move without his wheelchair
He experiments QRM on low bands 160/80/75m induced by the fence installed by
his neighbor
I don't know what kind of fence it is, and if it is really close to his
house or miles away...

He would like to know if a rotaty loop antenna could remove this QRM ?

I used a Wellbrooks ALA1530 and I am not sure that he could remove such QRM
as it.

Usually a fence has HV pulses generated by a large ignition coil or similar
transformer or this is maybe a thermostatic device

I see three solutions:
- I 'd like to know if there is a way to install on the fence itself a
"de-parasiter", something like a low-pass filter that 'd cut all trancient
emissions in HF bands ?
- or could the MFJ noise canceller (MFJ 1025/1026) be a solution (tightening
a second antenna like a long wire 20m long outdoor)
- at last is there another model of receive antenna that could really reject
this kind of QRM ?

Any other idea or an URL ?

Thanks in advance

Thierry, ON4SKY
http://www.astrosurf.com/lombry

# 1210. Re: How reject QRM from the fence ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-24 12:04:26 UTC
From: ON5MJ <my_call_sign@skynet.be>
Message-ID: <417b9a3b$0$15743$ba620e4c@news.skynet.be>
Source record: 87705

Hello Thierry ON4SKY or LX2SKY,

I worry there is few things to do with this kind of electric fence because the sharp pulses are inherent to the system of protection. And certainly a directional antenna can help in reducing or even cancel the QRM depending on the proximity (you didn't mention the frequency bands listen by your friend).

On the other hand there are in Belgium (or in Luxembourg) regulations about interferences. Nobody is allowed to pollute the frequency bands. If this problem remains after discovering the owner of the fence and you can't find an agreement with him, you have the possibility to call the IBPT at the following address:

"Toute personne peut s'adresser au NCS pour signaler des perturbations de
nature radio�lectrique.
Le NCS peut �tre contact� par courrier, par t�l�phone ou par e-mail �
l'adresse suivante:

IBPT
Avenue de l'Astronomie 14 bte 21
B-1210 Bruxelles
T�l. : +32-2-226 88 00
Fax : +32-2-226 88 02
E-mail : ncs-fr@ibpt.be

"

73 de ON5MJ - Jacques.

## 1211. Re: Hy-Gain 18AVT/WB-S

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-24 12:40:41 UTC
From: ON5MJ <my_call_sign@skynet.be>
Message-ID: <417ba2bc$0$22736$ba620e4c@news.skynet.be>
Source record: 87706

I have the same copy of the manual but I never paid attention to the handwriting as my aerial is complete. It looks like very possible. The only way to be sure is to unwrap my antenna. Sorry for not doing it.

73 de ON5MJ - Jacques.

# 1212. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-24 13:19:40 UTC
From: k3bu@aol.comNoUsama
Message-ID: <20041024091940.22932.00002228@mb-m10.aol.com>
Source record: 87707

>
>Correction: Two versions in the ARRL Antenna Book. The first illustration,
>Fig 7 on 16-4 in my 15th edition shows the current taper across the coil.
>Fig 10 on 16-6 shows no current taper across the coil. :-)
>--
>73, Cecil http://www.qsl.net/w5dxp

You are right, also my "lucky" thirteenth edition (1974) has picture 15-6
showing current drop across the coil. Back in those days they were some smart
and knowledgeable editors at ARRL.

Cecil, you are merciles protector of the truth :-)

Yuri, K3BU.us

# 1213. Re: How reject QRM from the fence ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-24 14:26:06 UTC
From: Crazy George <muNnscOh@attSglPobaAl.nMet>
Message-ID: <417bbe9f_4@news1.prserv.net>
Source record: 87709

Thierry:

Two answers:

The interference is pulse in nature, and a "noise blanker" of the type which was effective against the "Woodpecker" HF
Radar is effective.

In the States, there are fence chargers which emit no RFI. Their charging pulses are shaped to prevent it.
Unfortunately, it has been 10 years since I have dealt with that problem, and I no longer recall any brand names or
model numbers.

And, Jacques is correct, that interference is against radio regulations, and there are legal recourses which can be
pursued if all else fails.

--
Crazy George
Remove N O and S P A M imbedded in return address

# 1214. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-24 14:27:05 UTC
From: derswede@aol.comspam.com
Message-ID: <20041024102705.01624.00002990@mb-m28.aol.com>
Source record: 87708

>There are plenty of commercial fractal antennas available. Which one? Depends
>on the app.

Which gets back to the original question. WHO? Your site seems to be the only one, and all seems to be "proprietary" (by your own admission). So, "limited proprietary designs" would be a better term to use than "commercially available," which implies a broad (i.e. commercial) market. Silly to claim "commercial" when no one is offering them except in proprietary designs. 'Nuff said.

A

# 1215. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-24 14:36:26 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <417bbc00$1_4@127.0.0.1>
Source record: 87711

Tom Donaly wrote:
> For those who really want to
> know the truth, go to Tom Rauch's web site and read about loading coils.
> (He doesn't use the term "current drop" once."

I'm glad you used "truth" instead of "facts". Tom's truth doesn't
agree with scientific fact. You guys have turned your "truth"
into a religion.

Is there a current drop in a transmission line from the current
maximum (loop) to the current minimum (node) when standing waves
are present?

Is there a current drop from the feedpoint of a helical 1/4WL
antenna to the tip of the antenna?

If a coil occupies 90 degrees of a standing-wave antenna or an
unterminated transmission line with reflections, the current
can be maximum at one end of the coil and zero at the other.
The electrical 3/4WL antenna below consists of 1/4WL of wire,
loading coil, and 1/4WL of wire. The net current at one end
of the coil could be one amp while the net current at the
other end of the coil is zero. If you don't understand that
fact, I feel sorry for you.

coil
Feedpoint---1/4WL wire---x-///////-y---1/4WL wire---

When the above antenna is made resonant, the net current at
'x' is zero while the net current at 'y' is maximum. How do
you explain a coil with zero current at the bottom and one
amp at the top? It happens all the time in distributed
networks.

If a coil occupies 180 degrees of a standing wave antenna or an
unterminated transmission line with reflections, the current
can be zero at both ends and maximum in the middle. Such a
configuration is illustrated in "Antennas for all Applications",
by Kraus and Marhefka on page 824.
--
73, Cecil http://www.qsl.net/w5dxp

"The current and voltage distributions on open-ended wire antennas are
similar to the standing wave patterns on open-ended transmission lines ...
Standing wave antennas, such as the dipole, can be analyzed as traveling
wave antennas with waves propagating in opposite directions (forward and
backward) and represented by traveling wave currents If and Ib ..."

_Antenna_Theory_, Balanis, Second Edition, Chapter 10, page 488 & 489

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# 1216. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-24 14:37:03 UTC
From: Wes Stewart <n7ws_@_yahoo.com>
Message-ID: <2bfnn055ai0iqss5igie94pce91taucb19@4ax.com>
Source record: 87710

On 24 Oct 2004 10:50:51 GMT, fractenna@aol.com (Fractenna) wrote:

|I'm tired from the Red Sox win, but buoyed by the reverse of the Banmbino's
|curse!

Was that you behind the plate calling a ball thrown 8" inside a
"Strike"?

# 1217. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-24 14:42:27 UTC
From: fractenna@aol.com
Message-ID: <20041024104227.29586.00002668@mb-m02.aol.com>
Source record: 87712

>Was that you behind the plate calling a ball thrown 8" inside a
>"Strike"?
>

Heheh!

I wish I was there. Man, it was wicked cold last night! Frozen pitchers galore!

73,
Chip N1IR

# 1218. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-24 14:46:08 UTC
From: fractenna@aol.com
Message-ID: <20041024104608.29586.00002669@mb-m02.aol.com>
Source record: 87713

>Which gets back to the original question. WHO? Your site seems to be the
>only
>one, and all seems to be "proprietary" (by your own admission). So, "limited
>proprietary designs" would be a better term to use than "commercially
>available," which implies a broad (i.e. commercial) market. Silly to claim
>"commercial" when no one is offering them except in proprietary designs.
>'Nuff
>said.
>
>A
>

Over here, commercial means you sell to businesses and/or consumers in a profit oriented enterprise .

If you mean 'consumer off the shelf', no; don't do that.

The mission is to help define your needs and deliver solutions. Solution could mean: services; vended product; licensed design, most likely in reverse of that order.

73,
Chip N1IR

# 1219. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-24 15:22:49 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <dNPed.18181$nj.14597@newssvr13.news.prodigy.com>
Source record: 87714

Cecil Moore wrote:
> Tom Donaly wrote:
>
>> For those who really want to
>> know the truth, go to Tom Rauch's web site and read about loading coils.
>> (He doesn't use the term "current drop" once."
>
>
> I'm glad you used "truth" instead of "facts". Tom's truth doesn't
> agree with scientific fact. You guys have turned your "truth"
> into a religion.
>
> Is there a current drop in a transmission line from the current
> maximum (loop) to the current minimum (node) when standing waves
> are present?
>
> Is there a current drop from the feedpoint of a helical 1/4WL
> antenna to the tip of the antenna?
>
> If a coil occupies 90 degrees of a standing-wave antenna or an
> unterminated transmission line with reflections, the current
> can be maximum at one end of the coil and zero at the other.
> The electrical 3/4WL antenna below consists of 1/4WL of wire,
> loading coil, and 1/4WL of wire. The net current at one end
> of the coil could be one amp while the net current at the
> other end of the coil is zero. If you don't understand that
> fact, I feel sorry for you.
>
> coil
> Feedpoint---1/4WL wire---x-///////-y---1/4WL wire---
>
> When the above antenna is made resonant, the net current at
> 'x' is zero while the net current at 'y' is maximum. How do
> you explain a coil with zero current at the bottom and one
> amp at the top? It happens all the time in distributed
> networks.
>
> If a coil occupies 180 degrees of a standing wave antenna or an
> unterminated transmission line with reflections, the current
> can be zero at both ends and maximum in the middle. Such a
> configuration is illustrated in "Antennas for all Applications",
> by Kraus and Marhefka on page 824.

Did you have fun writing that, Cecil? What makes you think the
variation in current in two seperate places of a coil carrying
A.C. is a "current drop?"
73,
Tom Donaly, KA6RUH

## 1220. Re: Ready for the polls in Kentucky!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-24 15:56:08 UTC
From: Wby <rnrampage@yahoo.com>
Message-ID: <sgQed.13295$Rf1.1785@newssvr19.news.prodigy.com>
Source record: 87715

Let's all just go an vote, and pencil in "John Dvorak" for president.

"Smitty" <SmittyS@"nospam"alltel.net> wrote in message
news:iIRdd.168$mf7.166@fe39.usenetserver.com...
> VOTE REPUBLICAN!
>
> VOTE BUSH!
>

# 1221. Test, don't read.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-24 16:32:39 UTC
From: arrow146@aol.comjunk.com
Message-ID: <20041024123239.22732.00002577@mb-m15.aol.com>
Source record: 87717

This is just a test.
Arrow Antenna

# 1222. Re: How reject QRM from the fence ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-24 16:33:19 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <X6qdnTBI1fCARObcRVn-qA@comcast.com>
Source record: 87716

"Thierry" <-> wrote in message news:417b924a$1@news.vo.lu...
> Hi,
>
> I friend of mine, ham, is handicapped and cannot move without his
> wheelchair
> He experiments QRM on low bands 160/80/75m induced by the fence installed
> by
> his neighbor
> I don't know what kind of fence it is, and if it is really close to his
> house or miles away...
>
> He would like to know if a rotaty loop antenna could remove this QRM ?
>
> I used a Wellbrooks ALA1530 and I am not sure that he could remove such
> QRM
> as it.
>
> Usually a fence has HV pulses generated by a large ignition coil or
> similar
> transformer or this is maybe a thermostatic device
>
> I see three solutions:
> - I 'd like to know if there is a way to install on the fence itself a
> "de-parasiter", something like a low-pass filter that 'd cut all trancient
> emissions in HF bands ?
> - or could the MFJ noise canceller (MFJ 1025/1026) be a solution
> (tightening
> a second antenna like a long wire 20m long outdoor)
> - at last is there another model of receive antenna that could really
> reject
> this kind of QRM ?
>
> Any other idea or an URL ?
>
> Thanks in advance
>
> Thierry, ON4SKY
> http://www.astrosurf.com/lombry
>
>
Best fix would be to repair the fence. As a first step, they should contact
the manufacturer of the fence charger, and whatever regulatory agency is in
charge.

Tam/WB2TT

## 1223. Re: Ham Radio Embarrassments

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-24 16:49:02 UTC
From: QRZ <qrz@myinternetprovider.net>
Message-ID: <10nnn8fm7684keb@corp.supernews.com>
Source record: 87718
Cross-posted to: rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.amateur.antenna

<palpasid@nua.org> wrote in message
news:kqknn019g63bcs1uq3ivlf58q82pnmtg98@4ax.com...
: On Sun, 24 Oct 2004 07:22:12 -0400, The Radio Amateur of the World
: <radioamateuroftheworld@radioamateuroftheworld.net> wrote:
:
: >ND8V is mentally challenged. He even states so while on the air.
:
: Yeah, crazy like a fox. Know of anyone "metally challenged" who has
: ended up in prison???

Sure do!

# 1224. Re: Test, don't read.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-24 17:00:58 UTC
From: Chip <n1mie@nospam.com>
Message-ID: <pan.2004.10.24.17.00.58.954979@nospam.com>
Source record: 87719

On Sun, 24 Oct 2004 17:32:39 +0000, N0IMW wrote:

> This is just a test.
> Arrow Antenna

It's working.

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# 1225. Gas lines and ground rods

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-24 17:10:04 UTC
From: wntu4@yahoo.com
Message-ID: <6c7a372f.0410240910.49193ca1@posting.google.com>
Source record: 87720

Hi all,
Am designing my shack, and I think I have a problem.Very near the shack entrance is the entrance of my natural gas line to the house, plus meter. Now I know I cant attach ground to gas line.... the question is, how close can I get my rods? I plan to use 3, one right outside the entrance, and the others 10 feet to either side. I dont have the option of running away from the house more than 3-4 feet. The first rod would be about 3-4 ft away from the gas line, but the ground strap will have to go very very near the gas line. Am I looking at an explosion in the event of a lightning strike? or will a few inches of earth be enough insulation? I should point out that there appears to be an aluminum ground rod driven into the ground at the same point the gas line exits the earth. Thanks for any advice and information!

# 1226. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-24 17:32:36 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <417be55a_4@127.0.0.1>
Source record: 87621

Yuri Blanarovich wrote:
> Cecil, you are merciless protector of the truth :-)

Guess that's why I receive no mercy. :-)
--
73, Cecil http://www.qsl.net/w5dxp

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# 1227. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-24 17:50:25 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <417be97c_4@127.0.0.1>
Source record: 87622

Tom Donaly wrote:
> Did you have fun writing that, Cecil? What makes you think the
> variation in current in two seperate places of a coil carrying
> A.C. is a "current drop?"

My Webster's has 74 definitions of "drop" including: "a decline in amount" and "diminished or lessened". The current at a current node has certainly declined from the current loop and is certainly diminished from the current at a current loop. The only definition of "drop" in the IEEE Dictionary is "A connection made between a through transmission circuit and a local terminal unit". The IEEE Dictionary doesn't define "current drop". Neither do any of my technical reference books.

So Tom, please provide a definition and a reference for your version of "current drop". I suspect you are as wrong about the definition of "current drop" as you were about the contents of Balanis' book.
--
73, Cecil http://www.qsl.net/w5dxp
"The current and voltage distributions on open-ended wire antennas are similar to the standing wave patterns on open-ended transmission lines ... Standing wave antennas, such as the dipole, can be analyzed as traveling wave antennas with waves propagating in opposite directions (forward and backward) and represented by traveling wave currents If and Ib ..."
_Antenna_Theory_, Balanis, Second Edition, Chapter 10, page 488 & 489

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## 1228. An easy experiment with a coil

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-24 18:09:33 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <417bedfe_4@127.0.0.1>
Source record: 87623

The results of the measurement of current at the bottom and top of the coil
in an off-center-fed dipole configuration should leave no room for doubt.

------1/4WL------FP------1/4WL------

Start out with a 1/2WL dipole. Measure the resonant fundamental frequency.

Then, to one end, add a coil and another 1/4WL of wire

------1/4WL------FP------1/4WL------//////------1/4WL------

Adjust the coil inductance so the antenna is resonant on three times
the fundamental frequency of the original dipole.

Measure the current at the left(bottom) of the coil and measure the
current at the right(top) of the coil.

The current at the left of the coil will be nearly zero. The current
at the right of the coil will be approximately the same as the feedpoint
current, somewhere around 1-2 amps for 100w input. This can probably be
demonstrated using the helix feature of EZNEC.
--
73, Cecil http://www.qsl.net/w5dxp
"The current and voltage distributions on open-ended wire antennas are
similar to the standing wave patterns on open-ended transmission lines ...
Standing wave antennas, such as the dipole, can be analyzed as traveling
wave antennas with waves propagating in opposite directions (forward and
backward) and represented by traveling wave currents If and Ib ..."
_Antenna_Theory_, Balanis, Second Edition, Chapter 10, page 488 & 489

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# 1229. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-24 18:22:12 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <5gsnn09ponh8rihmrq5nl6m6pssa77frns@4ax.com>
Source record: 87624

On Sun, 24 Oct 2004 12:50:25 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:

>So Tom, please provide a definition and a reference for your version
>of "current drop".

Hi Tom,

How can you sensibly argue with the village idiot?

73's
Richard Clark, KB7QHC

## 1230. Re: Gas lines and ground rods

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-24 18:26:58 UTC
From: desmoface@aol.com
Message-ID: <20041024142658.29660.00006416@mb-m16.aol.com>
Source record: 87625

Good question, my ground rod (6ft) is about 4ft away from my gas
meter/pipe...never had any problems but I never thought about it..

kb8viv

>Am I looking at an
>explosion in the event of a lightning strike? or will a few inches of
>earth be enough insulation?

# 1231. Re: How reject QRM from the fence ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-24 18:39:39 UTC
From: Thierry <->
Message-ID: <417bf6f9$1@news.vo.lu>
Source record: 87626

OK, thanks to all your advices.
Good to know that the regulation protect our rights in such circumstances
too ;-)

73
Thierry, ON4SKY

"Tam/WB2TT" <t-tammaru@c0mca$t.net> wrote in message
news:X6qdnTBI1fCARObcRVn-qA@comcast.com...
>
> "Thierry" <-> wrote in message news:417b924a$1@news.vo.lu...
> > Hi,
> >
> > I friend of mine, ham, is handicapped and cannot move without his
> > wheelchair
> > He experiments QRM on low bands 160/80/75m induced by the fence
installed
> > by
> > his neighbor
> > I don't know what kind of fence it is, and if it is really close to his
> > house or miles away...
> >
> > He would like to know if a rotaty loop antenna could remove this QRM ?
> >
> > I used a Wellbrooks ALA1530 and I am not sure that he could remove such
> > QRM
> > as it.
> >
> > Usually a fence has HV pulses generated by a large ignition coil or
> > similar
> > transformer or this is maybe a thermostatic device
> >
> > I see three solutions:
> > - I 'd like to know if there is a way to install on the fence itself a
> > "de-parasiter", something like a low-pass filter that 'd cut all
trancient
> > emissions in HF bands ?
> > - or could the MFJ noise canceller (MFJ 1025/1026) be a solution
> > (tightening
> > a second antenna like a long wire 20m long outdoor)
> > - at last is there another model of receive antenna that could really
> > reject
> > this kind of QRM ?
> >
> > Any other idea or an URL ?

> >
> > Thanks in advance
> >
> > Thierry, ON4SKY
> > http://www.astrosurf.com/lombry
> >
> >
> Best fix would be to repair the fence. As a first step, they should
contact
> the manufacturer of the fence charger, and whatever regulatory agency is
in
> charge.
>
> Tam/WB2TT
>
>

# 1232. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-24 19:00:47 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <zZSed.18242$nj.4874@newssvr13.news.prodigy.com>
Source record: 87627

Richard Clark wrote:
> On Sun, 24 Oct 2004 12:50:25 -0500, Cecil Moore <w5dxp@hotmail.com>
> wrote:
>
>
>>So Tom, please provide a definition and a reference for your version
>>of "current drop".
>
>
> Hi Tom,
>
> How can you sensibly argue with the village idiot?
>
> 73's
> Richard Clark, KB7QHC

Hi Richard,
you can't, so I'm just going to ignore him for awhile.
73,
Tom Donaly, KA6RUH

# 1233. Re: Gain per unit length of boom

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-24 19:07:03 UTC
From: Chuck <wa7rai@raibeam.com>
Message-ID: <B3Ted.11167$6P5.7719@okepread02>
Source record: 87628

aunwin@insightbb.com <aunwin@insightbb.com@insightbb.com> wrote in message
news:MzAed.448084$Fg5.138935@attbi_s53...
>
> "Chuck" <wa7rai@raibeam.com> wrote in message
> news:DCyed.11049$6P5.8562@okepread02...
> >
> > aunwin@insightbb.com <aunwin@insightbb.com@insightbb.com> wrote in message
> > news:oYeed.289823$MQ5.38322@attbi_s52...
> > > YES
> >
> > Hi Art,
> >
> snip.
> >
> > If you haven't already done do, I would
> > be trying frequency sweeps over a
> > limited bandwidth, and scaling them to
> > higher frequencies to see if the results
> > remain consistent. If not, this could be
> > an indication of artifacts.
>
> I'l think about that
>
> >
> > I get the impression you are making
> > physical models to test as well.
> >
> > Perhaps scaling to a much higher freq,
> > say 50 or 145 mHz or so, would make
> > FS tests more manageable.
> >
> > The goal, is to simply determine if the
> > gain of the experimental structure is
> > greater than that of the benchmark
> > (the 2 el yagi) - measuring the exact
> > amount, should be of no real concern
> > at this point.
> >
> > 73 de Chuck, WA7RAI
> >
> Chuck, I am an experimentor, I am not advocating changing the aproach to
> antennas by amateurs

Hi Art,

I apologize if I gave that impression.

> When light weight fishing poles on E Bay became less than a dollar a foot
> I was able to get rid of most of my aluminum stock.When I got Beasely's
> NEC Pro program all prior constraints regarding antenna experimenting
> were removed (ala aluminum or copper foil). Last year I made a 160M
> dipole that was rotatable and frequency controlable with moveable bandwidth,
< I succeeded, but it still was a large structure and winter provided many
> unwanted occasions to repair the unexpected. This winter I am being less
> ambitious and am confining myself to a 8 foot boom. First I was to check if
> more elements can improve the gain. From prior experiments I knew that
> feed impedance can be change upwards by placing an element close the
> rear of the feed dipole which is contrary to the ARRL handbook.
> I also was aware from previous experiments that element diameter was very
> important if one is not controlled by mechanical requirements. I also knew
> from reading that in stacking when only the bottom array was being used one
> obtained protection from static noise so this would also be a good opportunity
> to have one element say 30 inches higher than the rest on the mast which
> would be part of the original array to give room for experimentation.
> My present model has a gain of 13 dbi at a ht of 820 inches over perfect
> ground and is less than 2:1 across the audio portion of 20 M. The number of
> elements is six which suggest things are heavy but with fishing poles it is
> extremely light. ( note, fishing poles when ice laden bend as if it had caught a
> fish and the ice then slides off) I have not used the f/b to rest upon as I believe
> that the lower lobe at the rear is not important where the second lobe is when
> considering direction of propagation.

A 2:1 VSWR bandwidth over the 20m
phone portion implies a good Q, but
aren't you even a bit curious if the gain is
indeed as high as 13 dBi?

I seem to recall from years ago, a yagi
that had several close spaced directors on
a relatively short boom - I just can't recall if
it was commercial, in an article, or any
other significant details about it.

> So thats it Chuck, I enjoy myself with playing with antennas to find out things
> for myself as I have more options at hand that the ARRL have not considered
> as yet and thus are not held hostage to the knoweledge of the many psuedo
> experts who thou knoweledgable about the past which is very usefull have
> decided that there is no future since all is known. By the way with the advent
> of cheap cameras < $30 it is easy to place a SWR meter or power meter right
> at the feed point and eliminate questions regarding transmission lines.
> Regards
> Art
>

The camera idea is a good one :)

There are always new things to learn...

My latest experiments have produced some unusual antennas:

A unique dipole that does not inductively couple with surrounding conductors (the perfect attic dipole), that can be 'tuned' at ground level, which, at first glance, appears to have a somewhat omni-directional pattern.

A reduced-noise (E-field loaded) vertical for 40m with a VSWR bandwidth of 1.3:1 from 7.0 to 7.3 mHz, (it's not a dummy load as one would generally deduce from the above description), and has proven to be as good a performer on DX and local as my conventional top loaded vertical.

The conventional vertical sees a noise level here of around S-7 or greater, and the E-field loaded vertical, around S-3 to S-5 (on IC-756, normal BW, no NB, no DSP).

Neither of these were developed using computer modeling, though.

Keep up the fun...

73 de Chuck, WA7RAI

# 1234. Re: Test, don't read.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-24 19:07:19 UTC
From: "M. J. Powell" <mike@DeLeTe.pickmere.demon.co.uk>
Message-ID: <dduQMAZn1$eBFwdj@pickmere.demon.co.uk>
Source record: 87638

In message <20041024123239.22732.00002577@mb-m15.aol.com>, N0IMW
<arrow146@aol.comjunk.com> writes
>This is just a test.

*I'll* decide whether to read your post, not you.

Mike
--
M.J.Powell

# 1235. Re: Pipe antenna mast

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-24 19:10:31 UTC
From: HAO'S <spam@hotmail.com>
Message-ID: <clguqi$lio$1@nic.grnet.gr>
Source record: 87629

ISTOS is the right word for a mast (in greek)
but it will not help much.....

? <kashe@sonic.net> ?????? ??? ??????
news:13q1n0tejo3ha1lmk2c9p3ovuaaasglqv0@4ax.com...
> On Fri, 15 Oct 2004 18:06:51 GMT, AB2RC <AB2RC@localhost.localdomain>
> wrote:
>
> >On 2004-10-15, Jimmie <Gfender@carolina.rr.com> wrote:
> >> cant find it now. I hope I am just googling for the wrong thing. I
first
> >> learned about tit in an article on same in 73. Any info on this site or
> >
> >I don't think I learned anything about tit in 73, but it might have been
in
> >Playboy....
>
> Might have been in 73 -- he was looking for information about
> a mast. Mastos is the Greek word for breast.
>

# 1236. Re: 2,6 & 10 Mtr Vertical?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-24 19:18:47 UTC
From: HAO'S <spam@hotmail.com>
Message-ID: <clgva3$m9s$1@nic.grnet.gr>
Source record: 87630

Ok this mite not help much but..
I was using my 10M ground plane antenna (1/4 length)
on 145.500 with a swr 1:1.
I had about 40M of RG213
As expected gain was out of the question.. But at lest local rag chew was
posible...


 "Radio Man" <puns@verizon.net> wrote in message
news:RCIdd.7880$n81.905@trnddc08...
> Is it possible to construct or purchase a 2, 6 & 10 mtr
> vertical?
>
>

# 1237. Re: Ham Radio Embarrassments

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-24 19:43:52 UTC
From: Ray Stevens <WogieSucks@nospam>
Message-ID: <clh0k8$d6h$0@pita.alt.net>
Source record: 87631
Cross-posted to: rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.amateur.antenna

"QRZ" <qrz@myinternetprovider.net> wrote in message
news:10nnn8fm7684keb@corp.supernews.com...

<palpasid@nua.org> wrote in message
news:kqknn019g63bcs1uq3ivlf58q82pnmtg98@4ax.com...
: On Sun, 24 Oct 2004 07:22:12 -0400, The Radio Amateur of the World
: <radioamateuroftheworld@radioamateuroftheworld.net> wrote:
:
: >ND8V is mentally challenged. He even states so while on the air.
:
: Yeah, crazy like a fox. Know of anyone "metally challenged" who has
: ended up in prison???

Sure do!

Can anybody spell W4AMP?

# 1238. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-24 19:44:32 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <417c043f_4@127.0.0.1>
Source record: 87632

Richard Clark wrote:
> Cecil Moore <w5dxp@hotmail.com> wrote:
>>So Tom, please provide a definition and a reference for your version
>>of "current drop".
>
> How can you sensibly argue with the village idiot?

That's pretty cruel, Richard, not allowing even the village idiot
to ask for a reference. How anyone can argue that there is no current
drop between the current antinode (maximum) and the current node
(minimum) is beyond belief. No drop from maximum to minimum is a
concept that would obselete all of human knowledge.
--
73, Cecil http://www.qsl.net/w5dxp
"The current and voltage distributions on open-ended wire antennas are
similar to the standing wave patterns on open-ended transmission lines ...
Standing wave antennas, such as the dipole, can be analyzed as traveling
wave antennas with waves propagating in opposite directions (forward and
backward) and represented by traveling wave currents If and Ib ..."
_Antenna_Theory_, Balanis, Second Edition, Chapter 10, page 488 & 489

----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

# 1239. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-24 19:47:53 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <417c0508_4@127.0.0.1>
Source record: 87633

Tom Donaly wrote:
> Hi Richard, you can't, so I'm just going to ignore him for awhile.

Don't blame you, Tom. If you are as wrong about "current drop" as you
were about the contents of Balanis' book, ignoring me is perfectly
understandable and the logical thing to do.
--
73, Cecil http://www.qsl.net/w5dxp
"The current and voltage distributions on open-ended wire antennas are
similar to the standing wave patterns on open-ended transmission lines ...
Standing wave antennas, such as the dipole, can be analyzed as traveling
wave antennas with waves propagating in opposite directions (forward and
backward) and represented by traveling wave currents If and Ib ..."
_Antenna_Theory_, Balanis, Second Edition, Chapter 10, page 488 & 489

----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

# 1240. Re: How reject QRM from the fence ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-24 20:05:20 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <ne1on05b72829bmu98sjeh8mfgnmsg27nl@4ax.com>
Source record: 87634

On Sun, 24 Oct 2004 13:30:05 +0200, "Thierry" <-> wrote:

>QRM on low bands 160/80/75m induced by the fence installed by
>his neighbor
>I don't know what kind of fence it is, and if it is really close to his
>house or miles away...

Hi Thierry,

First, find the offender. This is easy because, as you have experienced, the noise is everywhere. With that in mind, hop in the car and tune it in. Drive around and make it louder. You will then have answered the question as to where it is located.

Second, the reason why it is loud, much less louder. Electric fences fail for one of several reasons. Poor ground (how about that?) can offer problems, but it ranks pretty low. Poor connections can frustrate, but they are simple to fix if you simply walk the fence and inspect. Arcing can occur, but this is often confined to the lowest wire that is being brushed by grass, which then burns off with a sizzle (across the spectrum). Trimming vegetation takes care of that (and has you walking the fence line once again).

A useful tool to take along is a circuit tester with a neon bulb. It should light up at the right places (or the wrong places) or dim in the wrong places (or the right places). Again, this has you walking the fence line.

Expect to visually inspect along the fence line.

73's
Richard Clark, KB7QHC

# 1241. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-24 20:16:44 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <f03on0pifdjhm7hsea2k7u5do2nnbi8tuc@4ax.com>
Source record: 87635

On Sun, 24 Oct 2004 14:44:32 -0500, Cecil Moore <w5dxp@hotmail.com>
wrote:
>That's pretty cruel
What a sentimentalist. Wearing a lab coat only makes you a doctor on
TV commercials.

## 1242. Ladderline switch

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-24 20:36:14 UTC
From: Jaggy Taggy <outhouse@midcoast.com>
Message-ID: <BDA18A91.13DD%outhouse@midcoast.com>
Source record: 87636

I am putting up folded dipoles, one for each band I want to use. So far I have 3 and I need to think about a switch .

I want to run all these ladder lines to a switchbox outside my cabin and then run one coax thru the wall.

The ARRL handbooks have had suggestions for antenna switches but they were all for coax. Has anybody built this for ladder line, and what would be different?

First what do I connect the ladder line to, something like a set of banana plugs would work, but could those plugs be in a metal housing, how would the proximity of the metal affect the ladder line?? And the switching??
Would a double throw relay work??

So many questions...

Thanks for any answers

Uwe

# 1243. Re: Gas lines and ground rods

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-24 21:06:08 UTC
From: Jack Painter <223bthp@cox.net>
Message-ID: <2PUed.34233$_g6.9859@okepread03>
Source record: 87637

<wntu4@yahoo.com> wrote
> Hi all,
> Am designing my shack, and I think I have a problem.Very near the
> shack entrance is the entrance of my natural gas line to the house,
> plus meter. Now I know I cant attach ground to gas line.... the
> question is, how close can I get my rods? I plan to use 3, one right
> outside the entrance, and the others 10 feet to either side. I dont
> have the option of running away from the house more than 3-4 feet. The
> first rod would be about 3-4 ft away from the gas line, but the ground
> strap will have to go very very near the gas line. Am I looking at an
> explosion in the event of a lightning strike? or will a few inches of
> earth be enough insulation? I should point out that there appears to
> be an aluminum ground rod driven into the ground at the same point the
> gas line exits the earth. Thanks for any advice and information!

I am providing you some comments, and excepts, but your personnel safety in these matters dictates that you obtain professional assistance, which I am NOT.

1, Gas piping may NOT be the *primary* grounding electrode conductor.
2. Gas piping is REQUIRED to be bonded.

The ground electrodes you refer to installing outside your shack, these are presumed to be the closest electrode connections for your station single point ground? If so they must NOT be the same ground rod that will perform the requirement of (minimum of two) lightning downconductors per structure, or the grounding earth electrodes for those downconductors. But the station single point ground MUST bond to the lighting protection system (AFTER) the lighting downconductors have FIRST terminated at their OWN grounding electrode or system thereof. The station single point ground must ALSO bond to the home electrical service entry ground. You *should* discover your gas piping is already bonded to the service entry ground in accordance with code. But parts of the NEC and NFGC relating to this bond are fairly recent. I strongly recommend you hire a licensed electrician who demonstrates experience with lightning protection systems. If you come up dry on this search after several telephone calls, start calling professional (electrical) engineers who specify lightning protection systems. Call other areas if you come up dry there.

A few excerpts related to your query:

Equipotential bonding of all metallic supply lines entering a building is a vital requirement for protection of a building and its contents. Gas piping systems are specifically required to be bonded to a grounding electrode in accordance with the National Fuel Gas Code NFPA 54/ANSI Z223 and the National Electrical Code ANSI/NFPA 70. The grounding electrode is a

requirement of the National Electrical Code.

The 1999 and 2002 editions of the National Fuel Gas Code require that "each above ground portion of a gas piping system upstream from the equipment shutoff valve shall be electrically continuous and bonded to any grounding electrode, as defined by the National Electrical Code, ANSI/NFPA 70." Bonding jumper shall be sized in accordance with NEC Table 250.66.

An equipotential bonding connection shall be made between the fuel gas piping system and the electrical service grounding electrode. The bonding jumper should be sized in accordance with NEC Table 250.66 (based upon the rating of the largest overcurrent device protecting the feeder that supplies the building - typically 200 amps). Bonding and grounding connections are to be made by a qualified technician.

Hope this helps,

Jack Painter
Virginia Beach VA

# 1244. Re: Trap dipole design 160/80m

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-24 21:33:48 UTC
From: g0xay@aol.comnojunk
Message-ID: <20041024173348.28660.00001362@mb-m05.aol.com>
Source record: 87639

Ken
I asked the same question this side of the pond and the answer was - a doublet of about 120ft and open wire feeder. I'm making the feeder to start with!
Dick G0XAY

# 1245. Re: Ladderline switch

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-24 21:42:13 UTC
From: Bob Miller <rmiller47@satx.rr.com>
Message-ID: <i78on09ri5jnnfeici0rmbkadh22qst146@4ax.com>
Source record: 87640

On Sun, 24 Oct 2004 20:36:14 GMT, Jaggy Taggy <outhouse@midcoast.com>
wrote:

>I am putting up folded dipoles, one for each band I want to use. So far I
>have 3 and I need to think about a switch .
>
>I want to run all these ladder lines to a switchbox outside my cabin and
>then run one coax thru the wall.
>
>The ARRL handbooks have had suggestions for antenna switches but they were
>all for coax. Has anybody built this for ladder line, and what would be
>different?
>
>First what do I connect the ladder line to, something like a set of banana
>plugs would work, but could those plugs be in a metal housing, how would the
>proximity of the metal affect the ladder line?? And the switching??
>Would a double throw relay work??
>
>
>So many questions...
>
>Thanks for any answers
>
>Uwe

You might get some ideas looking at mfj's new balanced line
switchboxes -- the 1706 uses banana plugs -- the 1706H uses ceramic
feedthrough insulators.

bob
k5qwg

# 1246. Grounding Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-24 22:07:18 UTC
From: Gerry Moersdorf <gerry@columbus.rr.com>
Message-ID: <qIVed.33157$5v2.16027@fe2.columbus.rr.com>
Source record: 87641

I am installing a G5RV antenna, and a new ground for my TS-2000. The radio is in the center of the house, and instead of running a long ground wire to a ground rod at the outside of the house, i was thinking of drilling a hole directly below the radio room in the basement floor and driving the ground rod there. That would make the ground wire only 6-8' long. Assuming i do not find a wastepipe while driving my ground, is there any issues with getting a HF ground this way?

Also, I was going to install lightning arrestors at the radio and ground them to the new ground rod, is it better to place the lightning arrestors and an additional ground rod where the coax enters the house, or will this cause ground loop issues?

Thanks in advance to the collective wisdom of group.

Gerry KC8ZUL

# 1247. Re: Grounding Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-24 22:17:41 UTC
From: Jack Painter <223bthp@cox.net>
Message-ID: <8SVed.113235$Lo6.111022@fed1read03>
Source record: 87642

"Gerry Moersdorf" <gerry@columbus.rr.com> wrote in message
news:qIVed.33157$5v2.16027@fe2.columbus.rr.com...
> I am installing a G5RV antenna, and a new ground for my TS-2000. The
radio
> is in the center of the house, and instead of running a long ground wire
to
> a ground rod at the outside of the house, i was thinking of drilling a
hole
> directly below the radio room in the basement floor and driving the ground
> rod there. That would make the ground wire only 6-8' long. Assuming i do
> not find a wastepipe while driving my ground, is there any issues with
> getting a HF ground this way?
>
> Also, I was going to install lightning arrestors at the radio and ground
> them to the new ground rod, is it better to place the lightning arrestors
> and an additional ground rod where the coax enters the house, or will this
> cause ground loop issues?
>
> Thanks in advance to the collective wisdom of group.
>
> Gerry KC8ZUL
>
>

# 1248. Re: Grounding Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-24 22:35:00 UTC
From: jgboyles@aol.com
Message-ID: <20041024183500.11669.00002314@mb-m15.aol.com>
Source record: 87643

> I was going to install lightning arrestors at the radio and ground
>them to the new ground rod, is it better to place the lightning arrestors
>and an additional ground rod where the coax enters the house, or will this
>cause ground loop issues?

Hi Gerry, You are dealing with two different grounding issues, and I can't comment on the ground loop one. The purpose of the lightning protection ground is to make sure that most of the current from a strike gets to ground the way you want. And you want it NOT to go thru your TS on its way to ground.
A ground directly at the rig can be a safety ground as well as an RF ground. What you describe sounds like you are trying for an RF ground at the rig and a safety ground at the entrance to the house. You may not need an RF ground, I would concentrate on the safety aspect, and add the RF later if needed.

73 Gary N4AST

# 1249. Re: How reject QRM from the fence ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-24 22:46:29 UTC
From: jgboyles@aol.com
Message-ID: <20041024184629.11669.00002315@mb-m15.aol.com>
Source record: 87644

>He could change the type of fence charger. I have one which uses a
>continuous HV charge (with current limiting of course) and it works
>quite well and causes zero QRN.

Hi Bill, I have a homebrew one with a capacitor discharge into an auto ignition coil. What kind of diode and filter cap. specification do they have on the DC version you use? I would guess it is hard to let go of the DC version:-)
73 Gary N4AST

# 1250. Re: Grounding Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-24 23:05:57 UTC
From: Jack Painter <223bthp@cox.net>
Message-ID: <pzWed.113241$Lo6.35776@fed1read03>
Source record: 87645

"Gerry Moersdorf" <gerry@columbus.rr.com> wrote
> I am installing a G5RV antenna, and a new ground for my TS-2000. The
radio
> is in the center of the house, and instead of running a long ground wire
to
> a ground rod at the outside of the house, i was thinking of drilling a
hole
> directly below the radio room in the basement floor and driving the ground
> rod there. That would make the ground wire only 6-8' long. Assuming i do
> not find a wastepipe while driving my ground, is there any issues with
> getting a HF ground this way?

Gerry, if the G5RV is a non-radial using antenna (function is complete, as in a dipole), then this so called RF ground from your transmitter will be of little if any use. If you ran ladder line to it directly from the transmitter or tuner (and you were willing to tolerate RF in your shack and your home) maybe you do need an RF ground! <G> Assuming that's not the case, and you just want an RF ground anyway, the shortest path via minimum 3" wide copper strap would provide a good one, regardless of its basement location

> Also, I was going to install lightning arrestors at the radio and ground
> them to the new ground rod, is it better to place the lightning arrestors
> and an additional ground rod where the coax enters the house, or will this
> cause ground loop issues?
>
> Thanks in advance to the collective wisdom of group.
>
> Gerry KC8ZUL

Here is where you are mixing apples and oranges, because ground loops and lightning protection are not related. The only time lightning arrestors should ever be inside the shack is when they are immediately attached to the station single point ground *when that is inside the shack*. Mine is for instance, but I am also alongside an outside wall under which is the entry-point for all coax, and the shield-grounding point for same. If you are transmitting from an interior room, far from the coax entry point to the home, then the coax shields should be grounded outside the home and lightning arrestors installed there. The key is to have the lightning arrestors on as short a connection to real earth ground as possible. Preferably within 1' but in no cases more than 4' (via extremely low impedance and high current capability connectors) from earth ground.

Your location indicates that an outside bulkhead (some call this a "ground window") might be ideal. This would typically involve a copper plate attached to the external coax entry point of the home. Bond this bulkhead

immediately to a minimum 5/8" x 8' ground rod (and bury the ground rod top, do not let it protrude above ground). Ground all coaxial cable shielding to the ground rod (or *heavy* strap leading to it) and attach the lightning arrestors directly to the copper bulkhead above that. Then add a second and third ground rod, each fanning out from the first and a minimum of 12' from the first (16' is recommended).

If you are able to, install a very heavy (#2 or #4 copper) bonding conductor from your inside station ground (this might be in your basement) to your electrical service entry ground. Also bond the AC service entry ground rod to your outside coax entry grounding bulkhead. *If* you are able to accomplish that, *and* you have good surge protection installed at 1: the AC service panel, and 2. the point-of-use in your shack, then it would be safe to leave the transmitter plugged into AC during a storm. Otherwise, no matter how good your external grounding bulkhead and attached lightning arrestors, there will still be a path for enough damaging potential from ground to your radio, and out through the AC power cable. The critical bonding conductor from radio to AC service entry helps but cannot eliminate this path. Without it, there is no safe connection to AC power during a storm, no matter how good the surge protection is.

You can explore these comments in greater detail at:
http://members.cox.net/pc-usa/station/grounding.htm

73,
Jack

# 1251. Re: Grounding Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-24 23:18:54 UTC
From: Gerry Moersdorf <gerry@columbus.rr.com>
Message-ID: <yLWed.33683$5v2.10289@fe2.columbus.rr.com>
Source record: 87647

"Jack Painter" <223bthp@cox.net> wrote in message
news:pzWed.113241$Lo6.35776@fed1read03...
> "Gerry Moersdorf" <gerry@columbus.rr.com> wrote
> > I am installing a G5RV antenna, and a new ground for my TS-2000. The
> radio
> > is in the center of the house, and instead of running a long ground wire
> to
> > a ground rod at the outside of the house, i was thinking of drilling a
> hole
> > directly below the radio room in the basement floor and driving the
ground
> > rod there. That would make the ground wire only 6-8' long. Assuming i
do
> > not find a wastepipe while driving my ground, is there any issues with
> > getting a HF ground this way?
>
> Gerry, if the G5RV is a non-radial using antenna (function is complete, as
> in a dipole), then this so called RF ground from your transmitter will be
of
> little if any use. If you ran ladder line to it directly from the
> transmitter or tuner (and you were willing to tolerate RF in your shack
and
> your home) maybe you do need an RF ground! <G> Assuming that's not the
case,
> and you just want an RF ground anyway, the shortest path via minimum 3"
wide
> copper strap would provide a good one, regardless of its basement location
>
> > Also, I was going to install lightning arrestors at the radio and ground
> > them to the new ground rod, is it better to place the lightning
arrestors
> > and an additional ground rod where the coax enters the house, or will
this
> > cause ground loop issues?
> >
> > Thanks in advance to the collective wisdom of group.
> >
> > Gerry KC8ZUL
>
> Here is where you are mixing apples and oranges, because ground loops and
> lightning protection are not related. The only time lightning arrestors
> should ever be inside the shack is when they are immediately attached to
the
> station single point ground *when that is inside the shack*. Mine is for

> instance, but I am also alongside an outside wall under which is the
> entry-point for all coax, and the shield-grounding point for same. If you
> are transmitting from an interior room, far from the coax entry point to
the
> home, then the coax shields should be grounded outside the home and
> lightning arrestors installed there. The key is to have the lightning
> arrestors on as short a connection to real earth ground as possible.
> Preferably within 1' but in no cases more than 4' (via extremely low
> impedance and high current capability connectors) from earth ground.
>
> Your location indicates that an outside bulkhead (some call this a "ground
> window") might be ideal. This would typically involve a copper plate
> attached to the external coax entry point of the home. Bond this bulkhead
> immediately to a minimum 5/8" x 8' ground rod (and bury the ground rod
top,
> do not let it protrude above ground). Ground all coaxial cable shielding
to
> the ground rod (or *heavy* strap leading to it) and attach the lightning
> arrestors directly to the copper bulkhead above that. Then add a second
and
> third ground rod, each fanning out from the first and a minimum of 12'
from
> the first (16' is recommended).
>
> If you are able to, install a very heavy (#2 or #4 copper) bonding
conductor
> from your inside station ground (this might be in your basement) to your
> electrical service entry ground. Also bond the AC service entry ground rod
> to your outside coax entry grounding bulkhead. *If* you are able to
> accomplish that, *and* you have good surge protection installed at 1: the
AC
> service panel, and 2. the point-of-use in your shack, then it would be
safe
> to leave the transmitter plugged into AC during a storm. Otherwise, no
> matter how good your external grounding bulkhead and attached lightning
> arrestors, there will still be a path for enough damaging potential from
> ground to your radio, and out through the AC power cable. The critical
> bonding conductor from radio to AC service entry helps but cannot
eliminate
> this path. Without it, there is no safe connection to AC power during a
> storm, no matter how good the surge protection is.
>
> You can explore these comments in greater detail at:
> http://members.cox.net/pc-usa/station/grounding.htm
>
> 73,
> Jack
>

Jack and others,

Thanks for the weblink, this helped me understand what is going on with grounding.

will go for external lightning grounds at feedlines, and extend the AC safety ground to the shack. will give this a try !

gerry

# 1252. Re: Grounding Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-24 23:20:52 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <avdon0pg7at79drbs3aving0f5d5opl1sr@4ax.com>
Source record: 87646

On Sun, 24 Oct 2004 22:07:18 GMT, "Gerry Moersdorf"
<gerry@columbus.rr.com> wrote:

> i was thinking of drilling a hole
>directly below the radio room in the basement floor

Hi Gerry,

This is like punching a hole in the bottom of a boat. Can you guess
what might happen next?

73's
Richard Clark, KB7QHC

## 1253. Is that a radio wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-24 23:30:48 UTC
From: political commentator <political.commentator@gmail.com>
Message-ID: <clhdv8$ank$1@xuxa.iecc.com>
Source record: 87648
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.broadcasting,rec.radio.cb,rec.radio.info,rec.radio.scanner,rec.radio.shortwave

New evidence emerging in "BUSH WIRED" story - see the wire....

During the second Presidential debate on Friday, October 8th President Bush adjusted his tie; a gesture which exposed a black object contrasting a white shirt.

Look:

http://puppetstring.blogspot.com

Is it a wire?

No registration is required, you can post anonymously

# 1254. Re: Ladderline switch

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-25 01:45:09 UTC
From: phoneguy99 <phoneguy99unspam@unspamsympatico.ca>
Message-ID: <0UYed.3584$Qs6.288582@news20.bellglobal.com>
Source record: 87649

You could use a few high current (30A) relays. Double pole double throw types. If you nest (aka: boolean triangle) three of them, you could easily switch four antennae into one common buss.

Something like the NTE 30amp unit (nicely spaced contacts, and lots of space between poles.)

If you get ones with 12 or 24 volt DC coils, you can control the whole matrix with common 3 pair 24AWG phone wire. (you could even get away with 2 pair if you set them up with common ground)

Good luck and don't forget to use a few toroids on the DC feeds to the coils!

'73
VE3PMK

## 1255. Re: 2,6 & 10 Mtr Vertical?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-25 02:06:50 UTC
From: billybeeper@juno.com
Message-ID: <1e4e3692.0410241806.6107c623@posting.google.com>
Source record: 87650

"Radio Man" <puns@verizon.net> wrote in message news:<RCIdd.7880$n81.905@trnddc08>...
> Is it possible to construct or purchase a 2, 6 & 10 mtr
> vertical?

The MFJ-1796 covers 2, 6, and 10 (and 15, 20, and 40m).

## 1256. Re: Ladderline switch

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-25 02:07:51 UTC
From: k9sqg@aol.com
Message-ID: <20041024220751.16808.00002175@mb-m11.aol.com>
Source record: 87651

Well, "it depends". Wide spaced, open frame, ceramic base relays are ideal for switching ladder line. A knief switch is a good manual alternative. Best of luck...

# 1257. Re: Gain per unit length of boom

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-25 02:17:22 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0410241817.66d39c06@posting.google.com>
Source record: 87652

"Chuck" <wa7rai@raibeam.com> wrote in message
>
> A reduced-noise (E-field loaded) vertical
> for 40m with a VSWR bandwidth of 1.3:1
> from 7.0 to 7.3 mHz, (it's not a dummy
> load as one would generally deduce from
> the above description), and has proven to
> be as good a performer on DX and local
> as my conventional top loaded vertical.

What is E-field loaded? Not sure what you mean with that...
>
> The conventional vertical sees a noise
> level here of around S-7 or greater, and
> the E-field loaded vertical, around S-3 to
> S-5 (on IC-756, normal BW, no NB, no
> DSP).

I'd be very leary...Also would depend on the polarization of the
noise, and any possible changes in the pattern...But in general, if a
certain vertical picks up more far field noise than another, it's the
superior vertical. Noise is rf like any other signal. So unless I'm
missing something here, the conventional antenna should also receive
the *desired* signal better than the low noise version. And being
things are generally reciprical, it should probably transmit a better
signal also...How careful have your on the air tests been? Are you
quickly A/B'ing using a switch?
Needless to say, I'm kind of dubious of the claims of equal
performance. Unless the noise was common mode or polarity related,
I've never seen an antenna that received lower noise, outdo one that
picked up more noise. If the change is not efficiency related, that
would leave me to think that your vertical pattern is being skewed
somewhat, and is more horizontally polarized than the other, and thus
, picks up less vertically polarized noise. If thats not the case, I
would think the low noise version is less efficient. Just my opinion
tho...
>
> Neither of these were developed using
> computer modeling, though.

Neither were my comments...:/ MK

# 1258. Re: Fractal Antennas - Who?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-25 02:31:09 UTC
From: derswede@aol.comspam.com
Message-ID: <20041024223109.18603.00003155@mb-m07.aol.com>
Source record: 87653

>www.fractus.com

Ah! Thank you.
A

# 1259. Re: Hy-Gain 18AVT/WB-S

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-25 02:36:03 UTC
From: w9gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <nEZed.2295$R05.1982@attbi_s53>
Source record: 87654

"ON5MJ" <my_call_sign@skynet.be> wrote in message
news:417ba2bc$0$22736$ba620e4c@news.skynet.be...
>I have the same copy of the manual but I never paid attention to the
> handwriting as my aerial is complete. It looks like very possible. The
> only
> way to be sure is to unwrap my antenna. Sorry for not doing it.
>
> 73 de ON5MJ - Jacques.
>

I can't believe that the measurements are that critical.

Denis can always start with 30 cm, and then trim - if required easier than lengthening the radial ! :-)

w9gb

# 1260. Butternut HF6V question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-25 02:55:52 UTC
From: Mike Coslo <mcoslo@adelphia.net>
Message-ID: <rLKdncMyOMqq9uHcRVn-pw@adelphia.com>
Source record: 87655

Hey Butternut owners!

I bought a HF6V at a hamfes recently. It's installed now, and I am in the process of tuning it this weekend.

80 and 40 are okay soo far. 20 meters is a different story. One of the things I found out was that there was an extra HV cap. Apparently this goes on the 30 meter coil/capacitor assy. But the assy was disassy!

Does this cap go in series with the coil at the top, or does it go in parallel as do the 80 and 40 meter caps?

TIA - Mike KB3EIA -

## 1261. Re: Gain per unit length of boom

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-25 03:09:48 UTC
From: "aunwin@insightbb.com"
Message-ID: <08_ed.243129$wV.18192@attbi_s54>
Source record: 87656

```
"Chuck" <wa7rai@raibeam.com> wrote in message
news:B3Ted.11167$6P5.7719@okepread02...
>
> aunwin@insightbb.com <aunwin@insightbb.com@insightbb.com> wrote in message
> news:MzAed.448084$Fg5.138935@attbi_s53...
> >
> > "Chuck" <wa7rai@raibeam.com> wrote in message
> > news:DCyed.11049$6P5.8562@okepread02...
> > >
> > > aunwin@insightbb.com <aunwin@insightbb.com@insightbb.com> wrote in
message
> > > news:oYeed.289823$MQ5.38322@attbi_s52...
> > > > YES
> > >
> > > Hi Art,
> > >
> > snip.
> > >
> > > If you haven't already done do, I would
> > > be trying frequency sweeps over a
> > > limited bandwidth, and scaling them to
> > > higher frequencies to see if the results
> > > remain consistent. If not, this could be
> > > an indication of artifacts.
> >
> > I'l think about that
> >
> > >
> > > I get the impression you are making
> > > physical models to test as well.
> > >
> > > Perhaps scaling to a much higher freq,
> > > say 50 or 145 mHz or so, would make
> > > FS tests more manageable.
> > >
> > > The goal, is to simply determine if the
> > > gain of the experimental structure is
> > > greater than that of the benchmark
> > > (the 2 el yagi) - measuring the exact
> > > amount, should be of no real concern
> > > at this point.
> > >
> > > 73 de Chuck, WA7RAI
> > >
```

> > Chuck, I am an experimentor, I am not advocating changing the aproach to
> > antennas by amateurs
>
> Hi Art,
>
> I apologize if I gave that impression.
>
>
> > When light weight fishing poles on E Bay became less than a dollar a
foot
snip
>
> A 2:1 VSWR bandwidth over the 20m
> phone portion implies a good Q, but
> aren't you even a bit curious if the gain is
> indeed as high as 13 dBi?

Funnily today I changed the model slightly
and the gain exceeded 14 dbi with an increase in Q
So this is the model that I am going to make but
with the anticipation that by curving the elements
I will narrow the beam width. It shows 66 degrees
at the moment and a take off angle of 12 degrees.
It should be up in a few weeks. When I test I will look for
feed impedance and lobe width using a laptop program
with a distant signal.

>
> I seem to recall from years ago, a yagi
> that had several close spaced directors on
> a relatively short boom - I just can't recall if
> it was commercial, in an article, or any
> other significant details about it.

It may have been the 13 element I made for 20 M
on I think a 80 foot boom and that was the first time I used
two reflectors to get a 50 ohm feed.
I seem to remember that Roy modelled that also on EZNEC
or is it ELNEC and he confirmed the 50 ohm feed as did
my modelling and the actual antenna.This was about 10 years ago.

>
> > So thats it Chuck, I enjoy myself with playing with antennas to find out
things
> > for myself as I have more options at hand that the ARRL have not
considered
> > as yet and thus are not held hostage to the knoweledge of the many
psuedo
> > experts who thou knoweledgable about the past which is very usefull have
> > decided that there is no future since all is known. By the way with the
advent

> > of cheap cameras < $30 it is easy to place a SWR meter or power meter
right
> > at the feed point and eliminate questions regarding transmission lines.
> > Regards
> > Art
> >
>
> The camera idea is a good one :)
Yes I first used a micro video camera for direction of my prop pitch rotor
and then to observe stepping motor angles on capacitors

>
> There are always new things to learn...
>
> My latest experiments have produced
> some unusual antennas:
>
> A unique dipole that does not inductively
> couple with surrounding conductors (the
> perfect attic dipole), that can be 'tuned'
> at ground level, which, at first glance,
> appears to have a somewhat omni-
> directional pattern.
>
> A reduced-noise (E-field loaded) vertical
> for 40m with a VSWR bandwidth of 1.3:1
> from 7.0 to 7.3 mHz, (it's not a dummy
> load as one would generally deduce from
> the above description), and has proven to
> be as good a performer on DX and local
> as my conventional top loaded vertical.
>
> The conventional vertical sees a noise
> level here of around S-7 or greater, and
> the E-field loaded vertical, around S-3 to
> S-5 (on IC-756, normal BW, no NB, no
> DSP).
>
> Neither of these were developed using
> computer modeling, though.
>
> Keep up the fun...

Well that seems all very interesting but you are very
much out of my league which is just as well because
mention of E and H waves agitates the experts more than
my talk of coupling does

Art

> 73 de Chuck, WA7RAI
>
>
>
>
>
>

# 1262. Re: Ham Radio Embarrassments

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-25 03:09:59 UTC
From: "Leland C. Scott" <kc8ldo@arrl.net>
Message-ID: <zP2dnVzX0qLq8-HcRVn-rw@comcast.com>
Source record: 87657
Cross-posted to: rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.amateur.antenna

"Steveo" <moparholic@hotmail-nospam.com> wrote in message
news:20041024065023.464$5d@newsreader.com...
> "Leland C. Scott" <kc8ldo@arrl.net> wrote:
> > By all means look up ND8V on QRZ. The reading is interesting to say the
> > least.
> >
> > --
> > Leland C. Scott
> > KC8LDO
> >
> Hi Leland, that is pretty crazy stuff. I still don't think ND8V is as
> big of a Ham Radio Embarrassment than N8WWM is. I didn't see anything
> about ND having a felony record or making the Rain Report for jamming
> repeaters..N8WWM is one very sick individual who has a court ordered
> shrink, and can't hold onto an ISP.

I really don't know what to make of the stuff I read about ND8V. I guess you
make your own opinion and go from there. It made for some interesting
reading for a few minutes anyway.

--
Leland C. Scott
KC8LDO

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## 1263. Re: How reject QRM from the fence ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-25 03:44:04 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <XC_ed.195611$as2.93153@bignews3.bellsouth.net>
Source record: 87658

"Thierry" <-> wrote in message news:417b924a$1@news.vo.lu...
> Hi,
>
> I friend of mine, ham, is handicapped and cannot move without his
wheelchair
> He experiments QRM on low bands 160/80/75m induced by the fence installed
by
> his neighbor
> I don't know what kind of fence it is, and if it is really close to his
> house or miles away...
>
> He would like to know if a rotaty loop antenna could remove this QRM ?
>
> I used a Wellbrooks ALA1530 and I am not sure that he could remove such
QRM
> as it.
>
> Usually a fence has HV pulses generated by a large ignition coil or
similar
> transformer or this is maybe a thermostatic device
>
> I see three solutions:
> - I 'd like to know if there is a way to install on the fence itself a
> "de-parasiter", something like a low-pass filter that 'd cut all trancient
> emissions in HF bands ?
> - or could the MFJ noise canceller (MFJ 1025/1026) be a solution
(tightening
> a second antenna like a long wire 20m long outdoor)
> - at last is there another model of receive antenna that could really
reject
> this kind of QRM ?
>
> Any other idea or an URL ?
>
> Thanks in advance
>
> Thierry, ON4SKY
> http://www.astrosurf.com/lombry
>
>

I forget where I saw it (maybe in the MFJ catalog) - but I've seen a device
used for cancelling unwanted signals.
I think the principle is that the second (smaller) antenna should pick up

the unwanted signal -and have an attenuator on it - it adds to the original signal, but in opposite phase so as to cancel.
Used mainly to block locally strong signals so you can hear remote weaker signals.
The second antenna - being smaller - only picks up the strong local signal.
---
HTH
Hal

---
Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.781 / Virus Database: 527 - Release Date: 10/21/2004

# 1264. Re: Grounding Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-25 03:59:17 UTC
From: Irv Finkleman <finkirv@shaw.ca>
Message-ID: <417C7A49.33AC9CE0@shaw.ca>
Source record: 87659

Richard Clark wrote:
>
> On Sun, 24 Oct 2004 22:07:18 GMT, "Gerry Moersdorf"
> <gerry@columbus.rr.com> wrote:
>
> > i was thinking of drilling a hole
> >directly below the radio room in the basement floor
>
> Hi Gerry,
>
> This is like punching a hole in the bottom of a boat. Can you guess
> what might happen next?
>
> 73's
> Richard Clark, KB7QHC

A hole through the floor is not always a good idea, especially if the place where you drill is near the center of the foundation. The soil underneath is probably very dry and of no value for any sort of ground.

Irv VE6BP
--
---
Diagnosed Type II Diabetes March 5 2001
Beating it with diet and exercise!
297/215/210 (to be revised lower)
58"/43"(!)/44" (already lower too!)
---
Visit my HomePage at http://members.shaw.ca/finkirv/index.html
Visit my Baby Sofia website at http://members.shaw.ca/finkirv4/index.htm
Visit my OLDTIMERS website at http://members.shaw.ca/finkirv5/index.htm
---
Irv Finkleman,
Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
Calgary, Alberta, Canada

# 1265. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-25 04:37:08 UTC
From: richardharrison@webtv.net
Message-ID: <4141-417C82F4-148@storefull-3253.bay.webtv.net>
Source record: 87660

Jimmie wrote:
"I would not even say it is canceled in the far field although this is a convenient way of looking at radiation."

Kraus writes on page 23 of his 1950 "Antennas":
"Directivity=maximum radiation/average radiation.

The radiation is in watts per sq. mtr.

The famous round balloon example applies. The balloon is filled with so much air (an analog for the radiated energy). Squeeze the balloon. Energy like air, increases in the directions it isn`t squeezed in, but the total amount of air is unchanged and like the balloon air, the radiated energy total is a constant in the analog.

The idea that energy still exists where suppressed by interference is illogical.

Best regards, Richard Harrison, KB5WZI

# 1266. Re: Grounding Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-25 05:44:43 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <pb4pn0troq2r329814ks4rd7v3iipbpni0@4ax.com>
Source record: 87661

On Mon, 25 Oct 2004 03:59:17 GMT, Irv Finkleman <finkirv@shaw.ca>
wrote:
>A hole through the floor is not always a good idea, especially if the place where you
>drill is near the center of the foundation. The soil underneath is probably very dry
>and of no value for any sort of ground.

Hi Irv,

One might thinks so (dry), but this is the second hill I've lived on
the top of. The first one had a neighbor who had an underground
spring running through his basement. Here, I have two sump pumps with
a perimeter drain for the same reason.

73's
Richard Clark, KB7QHC

# 1267. Re: Gain per unit length of boom

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-25 06:04:59 UTC
From: richardharrison@webtv.net
Message-ID: <10679-417C978B-228@storefull-3251.bay.webtv.net>
Source record: 87662

Chuck, WA7RAI wrote:
"Indeed. And Kraus` speculation in this regard has been the basis for some debate if I recall."

Kraus gets support from Terman`s 1955 edition on page 906:
"A characteristic of all close-spaced arrays is that as size to antenna gain is reduced, the radiation resistance also goes down; this is illustrated by Fig. 23-36."

Best regards, Richard Harrisopn, KB5WZI

# 1268. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-25 06:24:02 UTC
From: richardharrison@webtv.net
Message-ID: <10679-417C9C02-229@storefull-3251.bay.webtv.net>
Source record: 87663

Tom, KA6RUH wrote:
"What makes you think the variation in current in two separate places of a coil carrying A.C. is a "current drop"?"

You have a voltage deop, a temperature drop, or a drop in almost any variable. Why not call a decline in current a current drop?

Best regards, Richard Harrison, KB5WZI

# 1269. Re: Fractal Antennas - Who?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-25 06:38:17 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <0n5pn0dv3iu0kv6js2n7kvfme27gj4grbn@4ax.com>
Source record: 87664

On Sun, 24 Oct 2004 22:53:30 -0400, william ewald
<wewald@bellsouth.net> wrote:

>On 25 Oct 2004 02:31:09 GMT, derswede@aol.comspam.com (AA) wrote:
>
>>>www.fractus.com
>>
>>Ah! Thank you.
>>A
>
>http://www.itm.mh.se/forskning/elektronik/Posters-2002/posters/PosterFractalAntennas.pdf

Same material as has been offered for 6 to 8 years at:
http://www.qsl.net/kb7qhc/antenna/fractal/Constant%20Height%20Comparisons.htm
which includes 143 pages of other data.

>
>http://www.itm.mh.se/forskning/elektronik/Posters-2002/posters/PosterFractalAntennas.pdf
duplicate link but as it also covers variations over iterations, same
material as has been offered for 6 to 8 years at:
http://www.qsl.net/kb7qhc/antenna/fractal/Constant%20Band%20Comparisons.htm
which includes another 17 pages of data; or
http://www.qsl.net/kb7qhc/antenna/fractal/Wide%20Band%20Comparisons.htm
offer another 8 pages (6 related to the specific example offered by
Bill)

However, the Triadic Koch is hardly an exemplar of the field of
fractals. The Quadratic Koch usually exhibits better characteristics
(clearly seen in the data from the pages offered).

There is nothing remarkable in the particular form, and even less in
it having a "respectable" name. In fact, the "field" (which is the
equivalent of academic mongoloidism) is so inbred, that you see the
same Kochs breathlessly trotted out every 6 months as though a new
breakthrough has been achieved. I don't blame them, they don't read
each other's papers anyway, and each researcher trusts theirs is the
first groundbreaking discovery. Generally they focus on metaphysical
formulas (you can find my own if this is your reading preference) with
the unstated premise that there is some causal relationship between
form and function. There is, but these gowned clowns haven't got a
clue.

Such antennas have simple rules if you wish to achieve both gain and
matching characteristics, and it has nothing to do with the eye-candy
visual appeal of snowflake forms.

Such cute antennas may sell to the rubes, but you can wave PhDs at the suckers to the same effect and they will throw loose change at you. The marketing is similar to the traveling carnival's freak shows. Some call this success in the marketplace and are rightly ashamed to display their product. ;-) After all, once your audience has seen the novelty, discovered how banal it is with casual exposure, the trade evaporates. The Carny experience lies in playing to the fetishes of mystery and the purchased exclusivity with shared secrets of a deformed world. Psychologists call this thrill "Voyeurism."

73's
Richard Clark, KB7QHC

# 1270. The "TRICK" to TV 'type' Coax Cable [Shielded] SWL Loop Antennas {RHF}

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-25 09:12:55 UTC
From: rhf-newsgroups@pacbell.net
Message-ID: <ff3145e8.0410250112.24a2abe3@posting.google.com>
Source record: 87665
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

YODAR,

The "TRICK" to TV 'type' Coax Cable [Shielded] SWL Loop Antennas {RHF}
http://groups.yahoo.com/group/Shortwave-SWL-Antenna/message/1626

I too tried to build a Coax Cable [Shielded] Loop Antenna
that was made of "TV type Coax" that had a 'Shield' made
of Foil and about 33% Braid. The Results were very poor.

Then I Got An IDEA "*" ! { K I S S }

Why not use "Pre-Made" Parts :o) WHAT ?

* One Piece of TV type Coax Cable with the "F" Connectors
on both Ends. This can should be these Pre-Made Lengths
Three Feet (3 Ft); Six Feet (6 Ft); Nine Feet (9 Ft);
Twelve Feet (12 Ft); and Fifteen Feet (15 Ft); ETC.

* One "F" Connector to PL-259 Plug (SO-239 Adapter)
RadioShack Catalog # 278-258

* One TV type Two-to-One Splitter with "F" Connectors.
Get the one with the two Output "F" Connectors on
'opposite' Sides and the Input "F" Connector on the
Bottom (looks like a 'T').

THE SECRET IS TO BUILD A <NEXUS> LOOP-HUB:
Using the Two-to-One Splitter. Remove the 'Seal' Plate
from the Body of the Splitter. Remove the Ferrite Core
and Wires from inside the Splitter. Next clean a 'Spot'
inside the Body of the Splitter for a Solder Ground-Point.
Use a Solder Gun (150W) to make this Solder Ground-Point;
get in and get out quickly so that you do not melt the
plastic insulation inside the "F" Connectors. Wrap a
Wire around the Left "F" Connector Terminal. Route this
Wire to the Solder Ground-Point on the Body of the Splitter.
Using a Soldering Iron (35W) and Solder the Left Terminal
and the Ground-Point. Next 'wrap' a Wire around the
Bottom "F" Connector Terminal; and 'route' the Wire to
the Right "F" Connector Terminal. Then you need to make
a 'new' "Metal Cover" for the Splitter. I used one of
those old AOL CD "Tins" that come in the Mail. They are
thin enough to 'cut' with a Heavy Pair of Scissors .
Cut and Trim a piece until it "Fits". Ensure your have
good Metal-to-Metal 'contact' between the Cover and
the Spliter and Glue them together for Security. You

now have the <NEXUS> "LOOP-HUB" of your Coax Cable Loop Antenna.

The Three Feet (3 Ft) piece of Coax Cable is your Feed-in-Line.

MAKING YOUR "INTERCHANGABLE" LOOP ANTENNA ELEMENTS:
The Six Feet (6 Ft); Nine Feet (9 Ft); Twelve Feet (12 Ft) and Fifteen Feet (15 Ft) Coax Cable are your [Shielded] Loop Antenna Elements. Fold them End-to-End and 'mark' a One Inch (1") Area at the Fold as their Mid-Point. Very Carefully 'cut' the Outer Insulation and then the Foil and Wire Braid away and out from this One Inch Area. {Do Not Damage the Inner Insulation and Center Wire of the Coax Cable.) Tape this One Inch Area and an Inch on each side for Strength and Security.

TIP: If you have a Plastic Hula-Hoop or some 5/8" or 3/4" (White) Low Pressure Water Line Polyethylene Tubing as a "Form" to hold the Loops in a Circle Shape. This Tubing must 'slip-over' the Coax Cable's "F" Connectors.

THE LOOP ANTENNA "HOOK-UP":
* Slide the Coax Cable Loop Antenna Element into the Plastic Tubing.
* Connect your Coax Cable Loop Antenna Element to the LOOP-HUB {Splitter}.
* Connect your Coax Cable Feed-in-Line to the LOOP-HUB {Splitter}.
* Install the "F" Connector to PL-259 Plug to the 'other end' of your Coax Cable Feed-in-Line and Connect to the your Radio/Receiver.
* Shape and Position your Loop Antenna Element.

CAUTION: When Installing the Coax Cable "F" Connectors into the "F" Connectors of the LOOP-HUB: Be careful to make sure that the Center Wire is NOT Bent and Shorted-Out.

SIZING: This is a Low Noise SWL InDoor Loop Antenna that allows the 'changing' of the Loop Antenna Element for the Coverage of different Shortwave Bands. These Loops are 'cut' "Sized" to roughly One Tenth of a Wave Length (1/10WL)
* Twenty-Five Feet (25 Ft) roughly the 120 Meter SW Band
* Twenty Feet (20 Ft) roughly the 90 Meter SW Band
* Fifteen Feet (15 Ft) roughly the 75 Meter SW Band
* Twelve Feet (12 Ft) roughly the 60 Meter SW Band
* Nine Feet (9 Ft) roughly the 41 Meter SW Band
* Six Feet (6 Ft) roughly the 31 Meter SW Band
* Five Feet (5 Ft) roughly the 25 Meter SW Band
* Four Feet (4 Ft) roughly the 19 Meter SW Band
* Three Feet (3 Ft) roughly the 13 Meter SW Band
The above Lengths and SW Bands are 'based' on the low

cost common {RadioShack} TV type RG-59 Coax Cable with
a Velocity Factor of 0.66.
NOTE: If you use RG6 "Quad Shield" Coax Cable that has
a Velocity Factor of 0.78 to 0.82: Then every thing would
shift down one SW Band 120M>90M, 90M>75M, 75M>60M, ETC.

PACK-AND-GO "TRAVEL" LOOP ANTENNA:
This Design-Set-Up makes for a 'portable' Travel SWL Loop
Antenna that can be Taken-Down and Put-Up in a Minute or two.

MEGA-SIZED FIFTY FOOT LOOP FOR THE AM/MW BROADCAST BAND:
Take a Fifty Foot (50 Ft) piece of Coax Cable and Mount
it OutSide Doors
- 540 kHz to 1700 kHz with a MidPoint of 1120 kHz
- Fifty Feet (50 Ft0 [1/10WL] VF=0.66 using RG59 Coax Cable.
- Square shape 12.5 Feet per Side with 17.5 Cross-Arms.
- Round shape 16 Diameter Circle.
- Coax Cable Lead-in-Line 5-10 Feet.
This is roughly the "Sizing" for the AM/MW Broadcast Band
For DX-Peditions throw a 50 Foot Coax Loop Antenna Element
Over a Tree Limb about 15 Feet High and stretch-out the two
bottom side to form an Equilateral Triangle 17 Feet on a side.
Hook-Up everything and sit-down and Listen :o)

iane ~ RHF
.
Some Say: On A Clear Day You Can See Forever.
http://groups.yahoo.com/group/Shortwave-SWL-Antenna/message/502
I BELIEVE: On A Clear Night...
You Can Hear Forever and Beyond - The Beyond !
.
.
= = = In gccloopantennadesign@yahoogroups.com,
= = = "YODAR" <yodar@in O'do> wrote:
> I MADE MY FIRST ONE AND FLOPPED because I used TV Coax
> (RG 58?) and there was no braid, it was foil and I
> could make no solder connection...ARRGGGG
>
> The RG-8 second try was so ungainly and costly and
> unyielding of ANY signal (perhaps I had failed with
> a connection) , that I got irrigated (kind way of
> saying P***ed OFF!) and threw it out.
>
> If I mess with Coax again it will be for an attic
> SNAKE ANTENNA
>
> Yodar in O'do
> who is still using SLINKIES
>
.

# 1271. Re: Butternut HF6V question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-25 09:44:06 UTC
From: Mogens <mogens@skalikkebrugespetsens.dk>
Message-ID: <417ccaea$0$256$edfadb0f@dread12.news.tele.dk>
Source record: 87666

> Does this cap go in series with the coil at the top, or does it go in
> parallel as do the 80 and 40 meter caps?

Are you aware that you have to use a 1/4 wave lenght impedance transformer
(matching line) on 20 meters?
This is the text from the original manual:

Symptom: High SWR on 20 meter; other bands OK.
Look for: Missing matching line. Antenna not properly tuned. 20 meter
radials not present or wrong length. Consult instructions for tuning and
radial information; install matching line RG-11 75 ohm coax, 11 ft 4 in
(345.4 cm) if solid dielectric, 13 ft 6 in (411.5 cm) if foam type.

73 de oz1akn, Mogens

# 1272. Re: Fractal Antennas - Who?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-25 10:54:52 UTC
From: fractenna@aol.com
Message-ID: <20041025065452.05710.00006630@mb-m14.aol.com>
Source record: 87667

>Such cute antennas may sell to the rubes, but you can wave PhDs at the
>suckers to the same effect and they will throw loose change at you.
>The marketing is similar to the traveling carnival's freak shows.
>Some call this success in the marketplace and are rightly ashamed to
>display their product. ;-) After all, once your audience has seen
>the novelty, discovered how banal it is with casual exposure, the
>trade evaporates. The Carny experience lies in playing to the
>fetishes of mystery and the purchased exclusivity with shared secrets
>of a deformed world. Psychologists call this thrill "Voyeurism."
>
>73's
>Richard Clark, KB7QHC
>

Since you are an American, Richard, and one company enjoys patent protection there, is there any reason not to believe that you are not referring to that company?

Who, pray, are you referring to? None of the references in your post are commercial enterprises.

Truly as a man of words, you may eoloquently articulate saying who that is, yes?

73,
Chip N1IR

# 1273. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-25 13:28:53 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <417cfdad_4@127.0.0.1>
Source record: 87668

Richard Harrison wrote:
> You have a voltage drop, a temperature drop, or a drop in almost any
> variable. Why not call a decline in current a current drop?

Many examples exist for current drops in distributed networks. That's one thing that makes circuit analysis invalid for distributed network problems. The series current is NOT the same value everywhere in a distributed network. Asserting that there is no such thing as "current drop" in distributed networks simply indicates an invalid choice of models.

How much current drop is there at 440 MHz in 100 feet of RG-58 between the source and a 50 ohm load? Answer: A 20 dB power drop equates to a 40 dB current drop.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

# 1274. Re: The "TRICK" to TV 'type' Coax Cable [Shielded] SWL Loop Antennas {RHF}

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-25 13:35:25 UTC
From: Dale Parfitt <par@parelectronics.com>
Message-ID: <xi7fd.1151$dW.1096@trnddc08>
Source record: 87669
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

"RHF" <rhf-newsgroups@pacbell.net> wrote in message
news:ff3145e8.0410250112.24a2abe3@posting.google.com...
> YODAR,
>
> The "TRICK" to TV 'type' Coax Cable [Shielded] SWL Loop Antennas {RHF}
> http://groups.yahoo.com/group/Shortwave-SWL-Antenna/message/1626
>
> I too tried to build a Coax Cable [Shielded] Loop Antenna
> that was made of "TV type Coax" that had a 'Shield' made
> of Foil and about 33% Braid. The Results were very poor.
>
> Then I Got An IDEA "*" ! { K I S S }
>
> Why not use "Pre-Made" Parts :o) WHAT ?
I used a similar idea for my 3.3' and 7' loops constructed from 3/4" CATV hardline. A CATV junction box for the termination and wideband preamp ( no tuning) and the standard 3/4" CATV connectors.

Here's some pix:
http://www.parelectronics.com/pics_new/P1010023.JPG
http://www.parelectronics.com/pics_new/P1010024.JPG 1 meter version
http://www.parelectronics.com/pics_new/P1010025.JPG
http://www.parelectronics.com/pics_new/P1010026.JPG close up of hub and preamp
http://www.parelectronics.com/pics_new/P1010027.JPG gap assembly
http://www.parelectronics.com/pics_new/P1010028.JPG 7' version

--
Dale W4OP
for PAR Electronics, Inc.

# 1275. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-25 14:17:53 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <lW7fd.34413$QJ3.7190@newssvr21.news.prodigy.com>
Source record: 87670

Richard Harrison wrote:
> Tom, KA6RUH wrote:
> "What makes you think the variation in current in two separate places of
> a coil carrying A.C. is a "current drop"?"
>
> You have a voltage deop, a temperature drop, or a drop in almost any
> variable. Why not call a decline in current a current drop?
>
> Best regards, Richard Harrison, KB5WZI
>

If you make clear what you mean and why you think it makes sense
there's nothing wrong with using non-standard terminology if it
aids communication. If you just pull it out of the air as if it
were a normal technical term that all technical people use, then
you're just gassing nonsense. I expect someone on this newsgroup
will start talking about "voltage flow" next.
73,
Tom Donaly, KA6RUH

# 1276. Re: Ladderline switch

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-25 14:49:09 UTC
From: Jaggy Taggy <outhouse@midcoast.com>
Message-ID: <BDA28AB9.1B31%outhouse@midcoast.com>
Source record: 87571

On 10/24/04 10:07 PM, in article
20041024220751.16808.00002175@mb-m11.aol.com, "K9SQG" <k9sqg@aol.com> wrote:

> Well, "it depends". Wide spaced, open frame, ceramic base relays are ideal
> for
> switching ladder line. A knief switch is a good manual alternative. Best of
> luck...

I get the general idea of what type of relay to look for but where do you
get these???

And if I use banana plugs/binding posts at my entry points do I have to
install them in insulating material?? Something about running ladder line
through binding posts installed in a metal cabinet doesn't sound right....

Uwe

# 1277. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-25 15:10:22 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <yH8fd.762529$Gx4.541523@bgtnsc04-news.ops.worldnet.att.net>
Source record: 87572

Cecil Moore wrote:
>
> Many examples exist for current drops in distributed networks. That's
> one thing that makes circuit analysis invalid for distributed network
> problems. The series current is NOT the same value everywhere in a
> distributed network. Asserting that there is no such thing as "current
> drop" in distributed networks simply indicates an invalid choice of
> models.
>
> How much current drop is there at 440 MHz in 100 feet of RG-58 between
> the source and a 50 ohm load? Answer: A 20 dB power drop equates to a
> 40 dB current drop.

Cecil,

You seem to like the "Roach Motel" theory of current flow. The electrons
check in, but they don't check out.

Here's a clue.

Conservation of charge is every bit as fundamental as conservation of
energy. Current does not just disappear. So what happens in your abused
RG-58 case?

Answer: this is not a simple series circuit.

At every point along the line the current splits between continuing down
the line and shunting to the other half of the transmission line. When
the line is lossless, the shunting is purely reactive, and no net
current flows. However, when there is loss in the line, there is a small
phase shift along with the attenuation, and net current is shunted.

The "circuit" model, as you like to call it, is every bit as valid as
the "distributed network" model. However, due to the distributed time
and space considerations in a transmission line, the "circuit" model is
mathematically intractable for many applications.

The physical reality remains the same even if we cannot easily do the math.

Oh, by the way, in a constant impedance environment the current change
corresponding to a power reduction of 20 dB is also 20 dB, not 40 dB.

73,
Gene
W4SZ

# 1278. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-25 15:36:54 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <477qn0tg4dg36v5fa1t416bsh11amqk007@4ax.com>
Source record: 87573

On Mon, 25 Oct 2004 15:10:22 GMT, Gene Fuller <W4SZzzzzzz@att.net>
wrote:

>However, due to the distributed time
>and space considerations in a transmission line, the "circuit" model is
>mathematically intractable for many applications.

AKA Violation of Kirchhoff

## 1279. antenna patch

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-25 16:16:30 UTC
From: Christophe <diconice.sav@free.fr>
Message-ID: <417d2476$0$29491$626a14ce@news.free.fr>
Source record: 87574

Hello,

i look for info to buy antenne patch on 150Mhz?

thanks.

Christophe

# 1280. Re: Ladderline switch

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-25 16:18:49 UTC
From: Bob Miller <rmiller47@satx.rr.com>
Message-ID: <779qn0p4d4oaajfad668i8ejliptekmig7@4ax.com>
Source record: 87575

On Mon, 25 Oct 2004 14:49:09 GMT, Jaggy Taggy <outhouse@midcoast.com>
wrote:

>On 10/24/04 10:07 PM, in article
>20041024220751.16808.00002175@mb-m11.aol.com, "K9SQG" <k9sqg@aol.com> wrote:
>
>> Well, "it depends". Wide spaced, open frame, ceramic base relays are ideal
>> for
>> switching ladder line. A knief switch is a good manual alternative. Best of
>> luck...
>
>
>
>I get the general idea of what type of relay to look for but where do you
>get these???

Mouser, perhaps...

>
>And if I use banana plugs/binding posts at my entry points do I have to
>install them in insulating material??

The banana plug receptacles typically have a plastic collar to keep
them from touching the cabinet. If you'd rather go with ceramic
feedthrough insulators, they have them in all sizes at Surplus Sales
of Nebraska. Pricey, but they got 'em.

bob
k5qwg

>Something about running ladder line
>through binding posts installed in a metal cabinet doesn't sound right....
>
>Uwe

# 1281. Re: Grounding Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-25 16:20:12 UTC
From: richardharrison@webtv.net
Message-ID: <12294-417D27BC-206@storefull-3252.bay.webtv.net>
Source record: 87576

Jack Painter wrote:
"Here is where you are mixing apples and oranges because ground loops and lightning protection are not related."

A ground loop is a potentially detrimental condition due to two or more points in an elewctrical system that are nominally at ground potential being connected by a conducting path.

A ground loop may provide a common impedance which couples energy between two or more circuits. Strength of the energy in the electrical circuits is immaterial in a current loop so long as nothing breaks down. Response to the excitation is the same.

A lightning strike is a huge noise injection. Techniques for noise reduction and testing are
also applicable to lightning suppression and may be tested with weak noise signals. I know from personal experience.

It is desirable to avoid common impedances which can couple lightning from one circuit to another, as a "ground loop" may.

Ground connections for protected equipments can be made with individual wires between each of the devices and a common ground point to avoid ground loops. This is not always practical.

It is usually practical to enclose devices inside a conductive enclosure, then to low-pass filter and surge protect every wire which penetrates the enclosure.

A screened room can serve as both noise and lightning protection, for example.

Best regards, Richard Harrison, KB5WZI

# 1282. Re: Grounding Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-25 16:46:19 UTC
From: Irv Finkleman <finkirv@shaw.ca>
Message-ID: <417D2E10.F4449E24@shaw.ca>
Source record: 87577

Richard Clark wrote:
>
> On Mon, 25 Oct 2004 03:59:17 GMT, Irv Finkleman <finkirv@shaw.ca>
> wrote:
> >A hole through the floor is not always a good idea, especially if the place where you
> >drill is near the center of the foundation. The soil underneath is probably very dry
> >and of no value for any sort of ground.
>
> Hi Irv,
>
> One might thinks so (dry), but this is the second hill I've lived on
> the top of. The first one had a neighbor who had an underground
> spring running through his basement. Here, I have two sump pumps with
> a perimeter drain for the same reason.
>
> 73's
> Richard Clark, KB7QHC

Wow! I'm on a hill too, but dry as a bone underneath the foundation. Fortunately
the soil around the house is moist and loamy.
Just wondeing -- is the spring salt water? :-)

Irv
--
---
Diagnosed Type II Diabetes March 5 2001
Beating it with diet and exercise!
297/215/210 (to be revised lower)
58"/43"(!)/44" (already lower too!)
---
Visit my HomePage at http://members.shaw.ca/finkirv/index.html
Visit my Baby Sofia website at http://members.shaw.ca/finkirv4/index.htm
Visit my OLDTIMERS website at http://members.shaw.ca/finkirv5/index.htm
---
Irv Finkleman,
Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
Calgary, Alberta, Canada

# 1283. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-25 16:46:50 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <Z5afd.762911$Gx4.78366@bgtnsc04-news.ops.worldnet.att.net>
Source record: 87578

Richard,

I am not sure why you think there is a violation of Kirchhoff.

The current law is unchanged. The analysis of the voltage law is much more complicated, but not incorrect.

The situation is not really any different than the use of retarded potentials for radiation. One must carefully keep track of the loop voltages with consideration for time and space differences, but there is no fundamental difference in the physics.

For distributed networks, the Kirchhoff voltage calculation is difficult (intractable). It is not impossible, but it is unnecessary due to the existence of the much more friendly transmission line formulations.

73,
Gene
W4SZ

Richard Clark wrote:
> On Mon, 25 Oct 2004 15:10:22 GMT, Gene Fuller <W4SZzzzzzz@att.net>
> wrote:
>
>
>>However, due to the distributed time
>>and space considerations in a transmission line, the "circuit" model is
>>mathematically intractable for many applications.
>
>
> AKA Violation of Kirchhoff

# 1284. Re: Gain per unit length of boom

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-25 17:09:06 UTC
From: Chuck <wa7rai@raibeam.com>
Message-ID: <w6bfd.12457$6P5.9893@okepread02>
Source record: 87580

Richard Harrison <richardharrison@webtv.net> wrote in message
news:10679-417C978B-228@storefull-3251.bay.webtv.net...
> Chuck, WA7RAI wrote:
> "Indeed. And Kraus` speculation in this regard has been the basis for
> some debate if I recall."
>
> Kraus gets support from Terman`s 1955 edition on page 906:
> "A characteristic of all close-spaced arrays is that as size to antenna
> gain is reduced, the radiation resistance also goes down; this is
> illustrated by Fig. 23-36."
>
> Best regards, Richard Harrisopn, KB5WZI
>

Hi Richard,

No one can argue with Kraus and Terman
or anyone else on this. What is "debatable"
is: at what point does radiation resistance
become too low - where high current losses
cancels any gain achieved by the tight
coupling. This is JMO, of course.

73 de Chuck, WA7RAI

# 1285. Re: Gain per unit length of boom

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-25 17:16:16 UTC
From: Chuck <wa7rai@raibeam.com>
Message-ID: <w6bfd.12458$6P5.534@okepread02>
Source record: 87582

aunwin@insightbb.com <aunwin@insightbb.com@insightbb.com> wrote in message
news:08_ed.243129$wV.18192@attbi_s54...
>
> "Chuck" <wa7rai@raibeam.com> wrote in message
> news:B3Ted.11167$6P5.7719@okepread02...
> >
<... >
> > A 2:1 VSWR bandwidth over the 20m
> > phone portion implies a good Q, but
> > aren't you even a bit curious if the gain is
> > indeed as high as 13 dBi?
>
> Funnily today I changed the model slightly
> and the gain exceeded 14 dbi with an increase in Q
> So this is the model that I am going to make but
> with the anticipation that by curving the elements
> I will narrow the beam width. It shows 66 degrees
> at the moment and a take off angle of 12 degrees.
> It should be up in a few weeks. When I test I will look for
> feed impedance and lobe width using a laptop program
> with a distant signal.

I am curious: how are you handling the
driven element's low input impedance?

<... >
> > Keep up the fun...
>
> Well that seems all very interesting but you are very
> much out of my league

Hardly :)

73 de Chuck, WA7RAI

# 1286. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-25 17:35:15 UTC
From: richardharrison@webtv.net
Message-ID: <4141-417D3953-204@storefull-3253.bay.webtv.net>
Source record: 87579

Tom Donaly, KA6RUH wrote:
"I know there are people in the past who have attempted to characterize antennas as transmission lines."

True. You can include Terman among them.

Terman discusses antenna current distribution on page 866 of his 1955 edition:

"Under most circumstances the losses are sufficiently low and the ratio of wire length to diameter sufficiently great so that to a first approximation the current distribution can be taken as that for a line with zero losses; it then has the characteristics discussed in Sec, 4-5."

Sec.4-5 is found on page 95 and is titled: "The Effect of Attenuation on Voltage and Current Distribution - Lossless Lines".

Sec. 4-5 is in Terman`s chapter on Transmission lines. Obviously an open-circuit antenna has the same current distribution as an open-circuit transmission line, and for the same reason.

Best regards, Richard Harrison, KB5WZI

# 1287. Re: Gain per unit length of boom

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-25 17:52:44 UTC
From: Chuck <wa7rai@raibeam.com>
Message-ID: <w6bfd.12459$6P5.4149@okepread02>
Source record: 87581

Mark Keith <nm5k@wt.net> wrote in message
news:25eb70d7.0410241817.66d39c06@posting.google.com...
> "Chuck" <wa7rai@raibeam.com> wrote in message
> >
> > A reduced-noise (E-field loaded) vertical
> > for 40m with a VSWR bandwidth of 1.3:1
> > from 7.0 to 7.3 mHz, (it's not a dummy
> > load as one would generally deduce from
> > the above description), and has proven to
> > be as good a performer on DX and local
> > as my conventional top loaded vertical.
>
> What is E-field loaded? Not sure what you mean with that...
> >
> > The conventional vertical sees a noise
> > level here of around S-7 or greater, and
> > the E-field loaded vertical, around S-3 to
> > S-5 (on IC-756, normal BW, no NB, no
> > DSP).
>
> I'd be very leary...Also would depend on the polarization of the
> noise, and any possible changes in the pattern...But in general, if a
> certain vertical picks up more far field noise than another, it's the
> superior vertical. Noise is rf like any other signal. So unless I'm
> missing something here, the conventional antenna should also receive
> the *desired* signal better than the low noise version. And being
> things are generally reciprical, it should probably transmit a better
> signal also...How careful have your on the air tests been? Are you
> quickly A/B'ing using a switch?
> Needless to say, I'm kind of dubious of the claims of equal
> performance. Unless the noise was common mode or polarity related,
> I've never seen an antenna that received lower noise, outdo one that
> picked up more noise. If the change is not efficiency related, that
> would leave me to think that your vertical pattern is being skewed
> somewhat, and is more horizontally polarized than the other, and thus
> , picks up less vertically polarized noise. If thats not the case, I
> would think the low noise version is less efficient. Just my opinion
> tho...
> >
> > Neither of these were developed using
> > computer modeling, though.
>
> Neither were my comments...:/ MK

Hi MK,

When I stated:
> > (it's not a dummy
> > load as one would generally deduce from
> > the above description)
I wasn't joking. The fact that you've never known a vertical antenna to behave in this manner, is not surprising.

The purpose of my experiment was to investigate the possibility of loading (shortening) an element while still maintaining a relatively normal BW.

Avoiding parallel wires and coils, the resulting loading system is what I call E-field loading (perhaps a poor choice of terms) - a method of conductive loading that resulted in reducing the off-resonance reactance in the FP. I suspect it is effecting the susceptance of the voltage loop in some way. The unexpected bonus, of course, was a reduced susceptibility to electrical noise.

73 de Chuck, WA7RAI

# 1288. Re: ARRL Propose New License Class & Code-Free HF Access

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-25 18:06:52 UTC
From: Bill-kb3gun <kb3gun-spam@wpia.net>
Message-ID: <417d40fd$0$99466$ec3e2dad@news.usenetmonster.com>
Source record: 87583

```
> How can a business accept charitable donations?
You have to be a business of sorts to be a charatable organization. You must
have a board of directors or officers and must hold regular business
meetings. Look at the Red Cross. They're a Charatable, Not-for-Profit,
<--Both tax classifications (ie 501C3) business...
```

"william ewald" <wewald@bellsouth.net> wrote in message
news:6dlnn0pk2pts0j87kts4l2b6fded0tl538@4ax.com...
> On Fri, 22 Oct 2004 10:09:30 -0500, richardharrison@webtv.net (Richard
> Harrison) wrote:
>
>>Lefty wrote:
>>"How many realize the ARRL is a business?"
>>
>>Of course it is, and it is operated by and for its small group of
>>insiders. As the only significant representative of licensed amateurs,
>>ARRL is a monopoly which enjoys the benefits of its status.
>
> How can a business accept charitable donations?
>
> From www.arrl.org
>
> September 29, 2004 -- Employees of the US government can designate
> their Combined Federal Campaign (CFC) pledges to the ARRL. (The League
> is CFC No 9872.) Federal employees who participate in the CFC can
> donate all or part of their CFC contribution to the League to support
> ARRL's efforts on behalf of Amateur Radio. Some private-sector
> employers also match donations their employees make to ARRL, while
> others will donate to the League if you volunteer your time--as an
> Amateur Radio Emergency Service (ARES) volunteer, for example.
> "ExxonMobil gives ARRL a donation of $500 for every 25 hours that I
> volunteer for ARES activities, including training, exercises and
> preparation--with a max of $2000 per year," says ARRL member Alan
> Isaachsen, KB2WF. ARRL is a qualifying 501(c)(3) organization, and
> contributions may be tax deductible for both employer and employee.
> Make it a point to find out your employer offers a volunteer incentive
> program or matches individual employee's donations to the League. For
> more information, contact ARRL Chief Development Officer Mary Hobart,
> K1MMH, mhobart@arrl.org; 860-594-0397; fax 860-594-0259.--thanks to
> Alan Isaachsen, KB2WF, and Walt Dubose, K5YFW

# 1289. Re: Antenna Design Information

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-25 18:12:20 UTC
From: Paul Burridge <pb@notthisbit.osiris1.co.uk>
Message-ID: <fegqn0dckov6h06r5hg253q9hsh3ahr3nd@4ax.com>
Source record: 87584
Cross-posted to: sci.electronics.design,rec.radio.amateur.antenna

On Mon, 25 Oct 2004 11:55:02 -0400, "MysticPixel"
<mystic.pixel@gmail.com> wrote:

>Hi all,
>
>I'm wondering if anyone can help me out with some basic RF antenna design.
>Ideally, can someone point me to some freeware antenna design software
>that can calculate information about bowtie dipole antennas?
>
>I've read some material on design but I'm still not certain about how the
>dimensions of the antenna are determined. The calculations are pretty
>simple for a regular 1/4 wavelength dipole antenna, but I can find almost
>NO information on a bowtie antenna other than basic definitions.
>
>if there's any freeware antenna design software recommendations, I'd
>really appreciate it. Thanks in advance!

I'm sure those knowledgable chaps at r.r.a.a will be able to assist
you (added herewith).

--

"What is now proved was once only imagin'd." - William Blake, 1793.

# 1290. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-25 18:32:17 UTC
From: Cecil.A.Moore@ieee.org
Message-ID: <9001ac09.0410251032.20b893d1@posting.google.com>
Source record: 87585

"Tom Donaly" <dtdonaly@sbcglobal.net> wrote:
> I expect someone on this newsgroup will start talking about
> "voltage flow" next.

The E-field and the H-field are inseparable in an EM RF wave.
If the H-field (current component) is flowing, then so is the
E-field (voltage component). If the E-field (voltage component)
is dropping due to radiation, then so is the H-field (current
component). That's one of the differences between a distributed
network RF wave and a DC bench circuit.

And how could we possibly have a Power Flow Vector without the
voltage flowing along with the power and the current? :-)
--
73, Cecil http://www.qsl.net/w5dxp

# 1291. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-25 19:20:29 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <cljjlu$3n6$1@news.service.uci.edu>
Source record: 87586

Tom Donaly wrote:

> If you make clear what you mean and why you think it makes sense
> there's nothing wrong with using non-standard terminology if it
> aids communication. If you just pull it out of the air as if it
> were a normal technical term that all technical people use, then
> you're just gassing nonsense. I expect someone on this newsgroup
> will start talking about "voltage flow" next.
> 73,
> Tom Donaly, KA6RUH

Probably best we distinguish between "flow", and propagation, before we digress into discussions of "standing wave propagation". ;-)

73, Jim AC6XG

# 1292. Re: Ladderline switch

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-25 19:44:42 UTC
From: Jaggy Taggy <outhouse@midcoast.com>
Message-ID: <BDA2CFDC.1C6F%outhouse@midcoast.com>
Source record: 87587

On 10/25/04 12:18 PM, in article 779qn0p4d4oaajfad668i8ejliptekmig7@4ax.com,
"Bob Miller" <rmiller47@satx.rr.com> wrote:

> On Mon, 25 Oct 2004 14:49:09 GMT, Jaggy Taggy <outhouse@midcoast.com>
> wrote:
>
>> On 10/24/04 10:07 PM, in article
>> 20041024220751.16808.00002175@mb-m11.aol.com, "K9SQG" <k9sqg@aol.com> wrote:
>>
>>> Well, "it depends". Wide spaced, open frame, ceramic base relays are ideal
>>> for
>>> switching ladder line. A knief switch is a good manual alternative. Best
>>> of
>>> luck...
>>
>>
>>
>> I get the general idea of what type of relay to look for but where do you
>> get these???
>
> Mouser, perhaps...
>
>>
>> And if I use banana plugs/binding posts at my entry points do I have to
>> install them in insulating material??
>
> The banana plug receptacles typically have a plastic collar to keep
> them from touching the cabinet. If you'd rather go with ceramic
> feedthrough insulators, they have them in all sizes at Surplus Sales
> of Nebraska. Pricey, but they got 'em.
>
> bob
> k5qwg
>
>
>
>> Something about running ladder line
>> through binding posts installed in a metal cabinet doesn't sound right....
>>
>> Uwe
>
>
>

Yes, I wasn't suggesting to shorten the banana posts to the metal, thus shortening the two antenna leads as well.

I was more thinking about the suggestion of keeping ladder line away from objects, not nailing it directly to the siding of your house for example.

That suggests that this unshieleded line might be influenced by objects close by. And along those thoughts I was wondering if bringing both lines within fractions of an inch to a common ground, the metal box, might be a good idea.

Uwe

# 1293. Re: Gain per unit length of boom

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-25 20:01:31 UTC
From: "aunwin@insightbb.com"
Message-ID: <vYcfd.314858$3l3.210855@attbi_s03>
Source record: 87589

You place another element closely (behind usually) to the driven element
such that with a
'critical coupling' the feed impedance increases to the desired level.
It is beyond me why antenna manufactures still ask people to match to a low
impedance
which provides losses, when the antenna can be provided with a feed
impedance of 50 Ohm !

I must be in error ofcourse with the above statement as everything is
already known and utilised

May I also point out that if you allow elements to vary in diameter and
height and still keeping to
a .1 boom length, gain increases until ultimately the elements form a
combined parabolic shape
and progressively place rearward radiation energy into the forward direction
until the ultimate is reached,
where there is no radiation to the rear and F/B is absent. I would remind
you that the top element is
going to be designed to be disconnected and connected to ground to
determine impact on static noise.
It is also my intent to string nylon from one end of the elements to the
other, progresively tightening it
until a suitable bend or bow is put in place such that the beam width
narrows to somewhere in the
range of 30 degrees. (ala point to point to get highes gain together with a
lower take off angle)

I do have a fold over tower by the way over 1/2 acre of clear ground with
embedded wire screen
and I am surrouded by sloping farmland with Drummond soil..The 1 inch
hardline is routed undeground.
The above experimentation is why I have so much fun with antenna
experimenting where in other
ways the experts would say it is useless to try before I even put my shoes
on.

Regards
Art

"Chuck" <wa7rai@raibeam.com> wrote in message
news:w6bfd.12458$6P5.534@okepread02...
>
> aunwin@insightbb.com <aunwin@insightbb.com@insightbb.com> wrote in message
> news:08_ed.243129$wV.18192@attbi_s54...
> >

> > "Chuck" <wa7rai@raibeam.com> wrote in message
> > news:B3Ted.11167$6P5.7719@okepread02...
> > >
> <... >
> > > A 2:1 VSWR bandwidth over the 20m
> > > phone portion implies a good Q, but
> > > aren't you even a bit curious if the gain is
> > > indeed as high as 13 dBi?
> >
> > Funnily today I changed the model slightly

snipped

> I am curious: how are you handling the
> driven element's low input impedance?
>
> <... >
> > > Keep up the fun...
> >

snipped

>
> Hardly :)
>
> 73 de Chuck, WA7RAI
>
>
>

# 1294. Re: Gain per unit length of boom

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-25 20:02:51 UTC
From: "aunwin@insightbb.com"
Message-ID: <XWcfd.5607$HA.4261@attbi_s01>
Source record: 87588

You place another element closely (behind usually) to the driven element
such that with a
'critical coupling' the feed impedance increases to the desired level.
It is beyond me why antenna manufactures still ask people to match to a low
impedance
which provides losses, when the antenna can be provided with a feed
impedance of 50 Ohm !

I must be in error ofcourse with the above statement as everything is
already known and utilised

May I also point out that if you allow elements to vary in diameter and
height and still keeping to
a .1 boom length, gain increases until ultimately the elements form a
combined parabolic shape
and progressively place rearward radiation energy into the forward direction
until the ultimate is reached,
where there is no radiation to the rear and F/B is absent. I would remind
you that the top element is
going to be designed to be disconnected and connected to ground to
determine impact on static noise.
It is also my intent to string nylon from one end of the elements to the
other, progresively tightening it
until a suitable bend or bow is put in place such that the beam width
narrows to somewhere in the
range of 30 degrees. (ala point to point to get highes gain together with a
lower take off angle)

I do have a fold over tower by the way over 1/2 acre of clear ground with
embedded wire screen
and I am surrouded by sloping farmland with Drummond soil..The 1 inch
hardline is routed undeground.
The above experimentation is why I have so much fun with antenna
experimenting where in other
ways the experts would say it is useless to try before I even put my shoes
on.

Regards
Art

"Chuck" <wa7rai@raibeam.com> wrote in message
news:w6bfd.12458$6P5.534@okepread02...
>
> aunwin@insightbb.com <aunwin@insightbb.com@insightbb.com> wrote in message
> news:08_ed.243129$wV.18192@attbi_s54...
> >

> > "Chuck" <wa7rai@raibeam.com> wrote in message
> > news:B3Ted.11167$6P5.7719@okepread02...
> > >
> <... >
> > > A 2:1 VSWR bandwidth over the 20m
> > > phone portion implies a good Q, but
> > > aren't you even a bit curious if the gain is
> > > indeed as high as 13 dBi?
> >
> > Funnily today I changed the model slightly

snipped

> I am curious: how are you handling the
> driven element's low input impedance?
>
> <... >
> > > Keep up the fun...
> >

snipped

>
> Hardly :)
>
> 73 de Chuck, WA7RAI
>
>
>

# 1295. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-25 20:23:51 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <rhdfd.1$zx1.0@newssvr13.news.prodigy.com>
Source record: 87590

Richard Harrison wrote:
> Tom Donaly, KA6RUH wrote:
> "I know there are people in the past who have attempted to characterize
> antennas as transmission lines."
>
> True. You can include Terman among them.
>
> Terman discusses antenna current distribution on page 866 of his 1955
> edition:
>
> "Under most circumstances the losses are sufficiently low and the ratio
> of wire length to diameter sufficiently great so that to a first
> approximation the current distribution can be taken as that for a line
> with zero losses; it then has the characteristics discussed in Sec,
> 4-5."
>
> Sec.4-5 is found on page 95 and is titled: "The Effect of Attenuation on
> Voltage and Current Distribution - Lossless Lines".
>
> Sec. 4-5 is in Terman`s chapter on Transmission lines. Obviously an
> open-circuit antenna has the same current distribution as an
> open-circuit transmission line, and for the same reason.
>
> Best regards, Richard Harrison, KB5WZI
>

You don't even have to go as far back as Terman. Reg Edwards bases his
antenna programs on the transmission line behavior of antennas, and
his programs do as well as you'd want. That's one way to look at
antenna behavior. It's not the only way, and it doesn't mean that
Cecil knows what he's talking about when he espouses the theories
he made up in his head out there in the hot Texas sun.
73,
Tom Donaly, KA6RUH

# 1296. Re: Grounding Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-25 20:39:07 UTC
From: Jack Painter <223bthp@cox.net>
Message-ID: <Ivdfd.34321$_g6.7615@okepread03>
Source record: 87591

"Richard Harrison" <richardharrison@webtv.net> wrote
Jack Painter wrote:
"Here is where you are mixing apples and oranges because ground loops
and lightning protection are not related."
--
A ground loop is a potentially detrimental condition due to two or more
points in an elewctrical system that are nominally at ground potential
being connected by a conducting path.

Ground connections for protected equipments can be made with individual
wires between each of the devices and a common ground point to avoid
ground loops. This is not always practical.

It is usually practical to enclose devices inside a conductive
enclosure, then to low-pass filter and surge protect every wire which
penetrates the enclosure.
--

Hi Richard, had I thought that was a controversial statement, I could have
elaborated that elimination of ground loops is normally a radio frequency
interference issue, and the creation of at least one ground loop is a design
requirement in residential lightning protection. The two are not usually
discussed together unless a conflict ocurrs, but I see your point.

It is indeed a requirement to individually bond equipment to the single
point station ground...and yes, practicality allows certain clusters of
equipment to be common bonded within their enclosures as you commented. But
the one place where a ground loop *must* be installed is in the station
ground to electrical service ground bonding. Proper station design requires
these never be far apart from each other in the first place, but we are
talking about residential stations, and close proximity between them is
rarely possible.

Telecom stations that cannot individually bond thousands of cards or even
hundreds of racks use high voltage isolation transformers and/or fiber optic
isolation from station ground entirely. Residences typically have neither
close proximity to AC service ground, not the financial ability to utilize
fiber or other HV isolation, so living with at least one ground loop is a
requirement. This has been reported to cause problems in some zero-volt
ground reference computing equipment, and isolated grounding is authorized
under certain conditions for that case only. I have not seen comments about
radio frequency interference from ground loop(s) caused by lightning
protection design. If they occur, perhaps they are easily choked with
standard RF control devices. I use those extensively anyway, so maybe that
chokes any ground loop problem, if one ever existed.

Thanks for your comments as always,

Jack

# 1297. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-25 21:09:25 UTC
From: Ian Jackson <IanJacksonRemoveThisBit@g3ohx.demon.co.uk>
Message-ID: <VRX6eOCFuWfBFwlY@g3ohx.demon.co.uk>
Source record: 87592

In message <417cfdad_4@127.0.0.1>, Cecil Moore <w5dxp@hotmail.com>
writes
>How much current drop is there at 440 MHz in 100 feet of RG-58 between
>the source and a 50 ohm load? Answer: A 20 dB power drop equates to a
>40 dB current drop.

Uh? Are you really REALLY sure?
Do you want to change your mind?
Ian.
--

# 1298. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-25 21:19:02 UTC
From: k3bu@aol.comNoUsama
Message-ID: <20041025171902.22356.00002359@mb-m16.aol.com>
Source record: 87593

>It's not the only way, and it doesn't mean that
>Cecil knows what he's talking about when he espouses the theories
>he made up in his head out there in the hot Texas sun.
>73,
>Tom Donaly, KA6RUH
>

We get the picture of you Tom, you can stop with that crap, quite enough!
Chipster will get jelous for you to take away his crown as troller
extraordinaire.

Yuri

# 1299. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-25 21:45:16 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <417d7207_4@127.0.0.1>
Source record: 87594

Gene Fuller wrote:
> Conservation of charge is every bit as fundamental as conservation of
> energy. Current does not just disappear. So what happens in your abused
> RG-58 case?
>
> Answer: this is not a simple series circuit.

Thanks Gene, that is exactly my point. 17th century simple series
DC concepts don't work on RF distributed networks.
--
73, Cecil http://www.qsl.net/w5dxp

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# 1300. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-25 21:50:26 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <417d7343_4@127.0.0.1>
Source record: 87595

Gene Fuller wrote:
> Oh, by the way, in a constant impedance environment the current change
> corresponding to a power reduction of 20 dB is also 20 dB, not 40 dB.

Yep, you're right. All I was (mistakenly) thinking about was the 10
vs 20 multiplier. Mea culpa. 20 lashes with a wet noodle for me.
--
73, Cecil http://www.qsl.net/w5dxp

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# 1301. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-25 21:53:10 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <417d73e2_4@127.0.0.1>
Source record: 87596

Richard Harrison wrote:

> Tom Donaly, KA6RUH wrote:
> "I know there are people in the past who have attempted to characterize
> antennas as transmission lines."
>
> True. You can include Terman among them.

Kraus also.
--
73, Cecil http://www.qsl.net/w5dxp

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# 1302. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-25 22:01:47 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <417d75eb_4@127.0.0.1>
Source record: 87597

Ian Jackson wrote:

> Cecil Moore <w5dxp@hotmail.com> writes:
>> How much current drop is there at 440 MHz in 100 feet of RG-58 between
>> the source and a 50 ohm load? Answer: A 20 dB power drop equates to a
>> 40 dB current drop.
>
> Uh? Are you really REALLY sure? Do you want to change your mind?

Yep, already did. My bad. Mea culpa. 20 more lashes with a wet noodle.
--
73, Cecil http://www.qsl.net/w5dxp

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# 1303. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-25 22:16:32 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <417d7958_4@127.0.0.1>
Source record: 87598

Tom Donaly wrote:
> ... it doesn't mean that
> Cecil knows what he's talking about when he espouses the theories
> he made up in his head out there in the hot Texas sun.

Tom, I think I get it now. Here is what I have learned from you.

1. Even though the only difference in the voltage and current equations
for a transmission line is one constant (the variable terms yield
exactly the same relative magnitude, phase, and attenuation
for the voltage wave and the current wave) and the decrease in the
voltage and current between the source and the load is exactly the
same percentage:

While the voltage reaching the load suffers a 10% drop, the current
does not suffer a drop. The current only suffers a 10% decrease.

2. While the voltage wave and current wave are traveling exactly the
same path in the same phase at the same speed from the source to the
load:

The current wave flows to the load but the voltage wave does not
flow to the load. The voltage wave only travels to the load.

Did I get it right?
--
73, Cecil http://www.qsl.net/w5dxp

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# 1304. Re: Butternut HF6V question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-25 23:41:26 UTC
From: Mike Coslo <mcoslo@adelphia.net>
Message-ID: <zcGdne7dGfu4EuDcRVn-iw@adelphia.com>
Source record: 87599

Mogens wrote:

>>Does this cap go in series with the coil at the top, or does it go in
>>parallel as do the 80 and 40 meter caps?
>
>
> Are you aware that you have to use a 1/4 wave lenght impedance transformer
> (matching line) on 20 meters?
> This is the text from the original manual:

Yes, I am.

> Symptom: High SWR on 20 meter; other bands OK.
> Look for: Missing matching line. Antenna not properly tuned. 20 meter
> radials not present or wrong length.

Well, this is a ground level installation, with underground radials

> Consult instructions for tuning and
> radial information; install matching line RG-11 75 ohm coax, 11 ft 4 in
> (345.4 cm) if solid dielectric, 13 ft 6 in (411.5 cm) if foam type.

AH-HA! Since the antenna didn't have the matching line with it, I put a
1/4 wave stub of around 16' 6" on it, which is quite off from the actual
value that they want. It is solid dielectric, so it is off by over 5 feet!

Thanks very much for the clarification of my problem.

For the original question that I had, I am going to put the cap in
series with the 30 meter coil, as after scrutiny of the parts list, that
is the only way I can see it fitting in the assembly.

- Mike KB3EIA

# 1305. Re: ARRL Propose New License Class & Code-Free HF Access

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-26 00:37:04 UTC
From: "Gary S." <Idontwantspam@net>
Message-ID: <u56rn0d648akr36vlkqg2enr6aa7fm9fvm@4ax.com>
Source record: 87600

On Mon, 25 Oct 2004 14:06:52 -0400, "Bill-kb3gun"
<kb3gun-spam@wpia.net> wrote:

>> How can a business accept charitable donations?
>You have to be a business of sorts to be a charatable organization. You must
>have a board of directors or officers and must hold regular business
>meetings. Look at the Red Cross. They're a Charatable, Not-for-Profit,
><--Both tax classifications (ie 501C3) business...
>
All types of non-profit corporations need to follow the IRS tax
regulations, as well as corporate law for the state in which they are
incorporated. They also need to follow commonly accepted accounting
practices, including an annual review of their finances and procedures
by an outside CPA.

Any non-profit type corporation can accept donations, but only
donations to a 501(c)(3) charitable non-profit are tax deductible for
the giver, and certain other benefits and programs are reserved for
501(c)(3). Grants are usually only available to (c)(3)s.

The flip side is that the standard for becoming and remaining a
501(c)(3) is more difficult, and they are scrutinized more carefully
by the IRS.

The vast majorities of their activities need to be charitable (for the
community, not their membership), educational, religious, or
scientific.

Other types of non-profits (there are at least a dozen other types) do
not need to meet such a high standard for their activities. Many would
fall under 501(c)(7), which is "recreational or social" clubs.

There are also restrictions on payments to Board members.

I suppose in theory that a for-profit business could accept donations,
but there would be no tax deduction for the giver, and the business
might have to pay taxes on it as income. Doesn't make sense, but it is
not illegal.

Happy trails,
Gary (net.yogi.bear)
---
at the 51st percentile of ursine intelligence

Gary D. Schwartz, Needham, MA, USA
Please reply to: garyDOTschwartzATpoboxDOTcom

## 1306. Re: Ladderline switch RELAY suggestions

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-26 00:46:03 UTC
From: Bob <nowhere@nospam.org>
Message-ID: <A6hfd.5713$rs5.389661@news20.bellglobal.com>
Source record: 87601

Try http://www.action-electronics.com/nterelay.htm

they have a great index system. I would try something like the
R04-11D30-12 or something similar.

# 1307. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-26 01:15:06 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <uyhfd.29534$OD2.14967@bgtnsc05-news.ops.worldnet.att.net>
Source record: 87602

Cecil,

I am glad you agree with me, but unfortunately my message was apparently lost on you.

No one has ever discussed simple series DC concepts except you. Kirchhoff laws do not require series circuits or DC.

The simple concepts work perfectly well, even on transmission lines. However, setting up and solving problems is mathematically complex, so everyone uses the transmission line formulations. There is no new physics needed. The electrons and waves don't care about math models. (I think I heard something from you along that line a few times.)

There is nothing wrong with the theory. It works perfectly well on "RF distributed networks". What is wrong is calling a lossy transmission line a "simple series circuit" and then misapplying the theory.

73,
Gene
W4SZ

Cecil Moore wrote:
> Gene Fuller wrote:
>
>> Conservation of charge is every bit as fundamental as conservation of
>> energy. Current does not just disappear. So what happens in your
>> abused RG-58 case?
>>
>> Answer: this is not a simple series circuit.
>
>
> Thanks Gene, that is exactly my point. 17th century simple series
> DC concepts don't work on RF distributed networks.

## 1308. Beam antenna for satilite question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-26 01:36:48 UTC
From: willybe@isp.com
Message-ID: <1f9bb743.0410251736.6d0aa369@posting.google.com>
Source record: 87603

Question on a beam antenna can i put a extra reflector 90 deg or on the botom of the director so the signal will also be reflected more upwared sence i dont have a tracking roater will this help on high altatude passes?

# 1309. Re: Butternut HF6V question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-26 02:00:51 UTC
From: Henry Kolesnik <kolesnik@sbcglobal.net>
Message-ID: <ndifd.231$fC4.26@newssvr11.news.prodigy.com>
Source record: 87604

Google it as I recall there's a manual online. I think ownership has
changed.

--

73
Hank WD5JFR
"Mike Coslo" <mcoslo@adelphia.net> wrote in message
news:rLKdncMyOMqq9uHcRVn-pw@adelphia.com...
> Hey Butternut owners!
>
> I bought a HF6V at a hamfes recently. It's installed now, and I am in the
> process of tuning it this weekend.
>
> 80 and 40 are okay soo far. 20 meters is a different story. One of the
> things I found out was that there was an extra HV cap. Apparently this
> goes on the 30 meter coil/capacitor assy. But the assy was disassy!
>
> Does this cap go in series with the coil at the top, or does it go in
> parallel as do the 80 and 40 meter caps?
>
> TIA - Mike KB3EIA -
>

# 1310. Re: An easy experiment with a coil

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-26 03:00:09 UTC
From: Knarf <ve6cb@NOSPAM.telus.net>
Message-ID: <Z4jfd.743$VA5.640@clgrps13>
Source record: 87605

Could not get it to work. Below is my NEC2 code ( heavily segmented as it is easier to figure out where to place the source and load). What am I doing wrong? Resonant on 7.25 MHz before extending the antenna. Approaches resonance on 22 MHz, when extended, with very high series L. A 40 m dipole is resonant on the 3rd harmonic anyway so all you are doing is isolating the extra 1/4 wave by placing a very high impedance at the quarter wave point. I guess I missed something, be interested in any comments.

Regards,

Frank

Code:

```
CM free space dipole antenna
CE
GW 1 99 -33 0 0 66 0 0 0.0026706
GS 0 0 .3048
GE 0
EX 0 1 33 0 1 0
LD 4 1 67 67 1200 0
LD 5 1 1 99 5.8001E7
FR 0 31 0 0 20 0.1
RP 0 181 1 1000 -90 90 1 1
EN
```

"Cecil Moore" <w5dxp@hotmail.com> wrote in message news:417bedfe_4@127.0.0.1...

> The results of the measurement of current at the bottom and top of the
> coil
> in an off-center-fed dipole configuration should leave no room for doubt.
>
> ------1/4WL------FP------1/4WL------
>
> Start out with a 1/2WL dipole. Measure the resonant fundamental frequency.
>
> Then, to one end, add a coil and another 1/4WL of wire
>
> ------1/4WL------FP------1/4WL------//////------1/4WL------
>
> Adjust the coil inductance so the antenna is resonant on three times
> the fundamental frequency of the original dipole.
>
> Measure the current at the left(bottom) of the coil and measure the
> current at the right(top) of the coil.
>

> The current at the left of the coil will be nearly zero. The current
> at the right of the coil will be approximately the same as the feedpoint
> current, somewhere around 1-2 amps for 100w input. This can probably be
> demonstrated using the helix feature of EZNEC.
> --
> 73, Cecil http://www.qsl.net/w5dxp
> "The current and voltage distributions on open-ended wire antennas are
> similar to the standing wave patterns on open-ended transmission lines ...
> Standing wave antennas, such as the dipole, can be analyzed as traveling
> wave antennas with waves propagating in opposite directions (forward and
> backward) and represented by traveling wave currents If and Ib ..."
> _Antenna_Theory_, Balanis, Second Edition, Chapter 10, page 488 & 489
>
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# 1311. Re: An easy experiment with a coil PS

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-26 03:12:46 UTC
From: Knarf <ve6cb@NOSPAM.telus.net>
Message-ID: <Ogjfd.808$VA5.714@clgrps13>
Source record: 87606

PS should I have used an actual helix? Very tedious to structure with code, although have done it in other models. Noticed that the current in and out of the coil is vastly different when compared with using the lumped element model.

Frank

"Knarf" <ve6cb@NOSPAM.telus.net> wrote in message
news:Z4jfd.743$VA5.640@clgrps13...
> Could not get it to work. Below is my NEC2 code ( heavily segmented as it
> is easier to figure out where to place the source and load). What am I
> doing wrong? Resonant on 7.25 MHz before extending the antenna.
> Approaches resonance on 22 MHz, when extended, with very high series L. A
> 40 m dipole is resonant on the 3rd harmonic anyway so all you are doing is
> isolating the extra 1/4 wave by placing a very high impedance at the
> quarter wave point. I guess I missed something, be interested in any
> comments.
>
> Regards,
>
> Frank
>
> Code:
>
> CM free space dipole antenna
> CE
> GW 1 99 -33 0 0 66 0 0 0.0026706
> GS 0 0 .3048
> GE 0
> EX 0 1 33 0 1 0
> LD 4 1 67 67 1200 0
> LD 5 1 1 99 5.8001E7
> FR 0 31 0 0 20 0.1
> RP 0 181 1 1000 -90 90 1 1
> EN
>
> "Cecil Moore" <w5dxp@hotmail.com> wrote in message
> news:417bedfe_4@127.0.0.1...
>> The results of the measurement of current at the bottom and top of the
>> coil
>> in an off-center-fed dipole configuration should leave no room for doubt.
>>
>> ------1/4WL------FP------1/4WL------
>>
>> Start out with a 1/2WL dipole. Measure the resonant fundamental

>> frequency.
>>
>> Then, to one end, add a coil and another 1/4WL of wire
>>
>> ------1/4WL------FP------1/4WL------//////------1/4WL------
>>
>> Adjust the coil inductance so the antenna is resonant on three times
>> the fundamental frequency of the original dipole.
>>
>> Measure the current at the left(bottom) of the coil and measure the
>> current at the right(top) of the coil.
>>
>> The current at the left of the coil will be nearly zero. The current
>> at the right of the coil will be approximately the same as the feedpoint
>> current, somewhere around 1-2 amps for 100w input. This can probably be
>> demonstrated using the helix feature of EZNEC.
>> --
>> 73, Cecil http://www.qsl.net/w5dxp
>> "The current and voltage distributions on open-ended wire antennas are
>> similar to the standing wave patterns on open-ended transmission lines
>> ...
>> Standing wave antennas, such as the dipole, can be analyzed as traveling
>> wave antennas with waves propagating in opposite directions (forward and
>> backward) and represented by traveling wave currents If and Ib ..."
>> _Antenna_Theory_, Balanis, Second Edition, Chapter 10, page 488 & 489
>>
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>

# 1312. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-26 03:35:52 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <417dc42f_4@127.0.0.1>
Source record: 87607

Gene Fuller wrote:
> No one has ever discussed simple series DC concepts except you.

Don't you recognize "17th century DC concepts" as sarcasm?

> What is wrong is calling a lossy transmission
> line a "simple series circuit" and then misapplying the theory.

That's exactly my point, Gene. I think you missed it. What is
wrong is assuming a simple one-way series current flowing through
a point inductance in a *standing-wave* mobile antenna containing
a one foot by one foot 75m *bugcatcher* coil that occupies more
than 60 degrees of an electrical 1/4 wavelength.

The original argument originated over on eHam.net. Tom, W8JI
said there is no change in current from end to end in a loading
coil. Yuri disagreed. Everything else is a fallout from that
original argument.
--
73, Cecil http://www.qsl.net/w5dxp

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# 1313. Re: An easy experiment with a coil

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-26 03:50:18 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <417dc78f$1_4@127.0.0.1>
Source record: 87608

Knarf wrote:
> Could not get it to work. Below is my NEC2 code ( heavily segmented as it
> is easier to figure out where to place the source and load). What am I
> doing wrong? Resonant on 7.25 MHz before extending the antenna. Approaches
> resonance on 22 MHz, when extended, with very high series L. A 40 m dipole
> is resonant on the 3rd harmonic anyway so all you are doing is isolating the
> extra 1/4 wave by placing a very high impedance at the quarter wave point.
> I guess I missed something, be interested in any comments.

The lumped point inductance will definitely not give the correct results.
The coil needs to use the helix feature of EZNEC+ 4.0. I constructed an
8-sided coil out of segments in EZNEC 2.0 and the results can be viewed at:

http://www.qsl.net/w5dxp/octcoil2.gif

The dimensions and inductance are not perfect but the idea is perfectly
clear. There's 0.11 amp at the bottom of the coil and 0.57 amps at the
top of the coil. By playing with lengths of wire and frequency, I've seen
the current at the bottom of the coil as low as 0.005 amps while the
current at the top of the coil was about 0.6 amps.
--
73, Cecil http://www.qsl.net/w5dxp

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# 1314. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-26 03:52:18 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <g0irn0t8hnfvu0nq2h6vhov3ge141bde32@4ax.com>
Source record: 87609

On Mon, 25 Oct 2004 16:46:50 GMT, Gene Fuller <W4SZzzzzzz@att.net>
wrote:

>I am not sure why you think there is a violation of Kirchhoff.

Hi Gene,

Kirchhoff does not allow for circuits of dimensions that are
appreciable size with respect to wavelength. Simple reason is that
you should then shrink down the unspecified lead length (for voltage
law) into the stray, equivalent and dimensionless components. This is
outrageously flaunted in this group, and then couched as examples of
modeling failure (when it is in fact modeler - the human component -
failure).

This is the "intractability" you speak of - the neglect of the proper
rendering of the network in dimensionless terms.

73's
Richard Clark, KB7QHC

# 1315. Re: An easy experiment with a coil PS

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-26 03:56:01 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <417dc8ea_4@127.0.0.1>
Source record: 87610

Knarf wrote:
> PS should I have used an actual helix? Very tedious to structure with code,
> although have done it in other models. Noticed that the current in and out
> of the coil is vastly different when compared with using the lumped element
> model.

Yes, use an actual helix. If it will help, download octcoil2.ez from my
web page by clicking here:

http://www.qsl.net/w5dxp/octcoil2.ez

For this particular case:

http://www.qsl.net/w5dxp/octcoil2.gif

a lumped point inductance gives bogus results.
--
73, Cecil http://www.qsl.net/w5dxp

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## 1316. Re: Grounding Question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-26 04:06:32 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <nsirn0pt6q0q99fpvtjp5sage2goh5i0hg@4ax.com>
Source record: 87611

On Mon, 25 Oct 2004 16:46:19 GMT, Irv Finkleman <finkirv@shaw.ca>
wrote:
>Just wondeing -- is the spring salt water? :-)

The neighborhood use to be orchard. I haven't tasted the water, but I bet it is fresh water. Remember now, we are speaking about Rain City - Seattle (although we do have an extensive view of Puget Sound which is only several blocks, downhill, away).

As I can easily see the water line 6 feet below grade (through the well shaft), I've no doubt of what may follow if I were to puncture this raft.

73's
Richard Clark, KB7QHC

# 1317. Re: Is that a radio wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-26 04:13:56 UTC
From: "Leland C. Scott" <kc8ldo@arrl.net>
Message-ID: <clkiu4$ojv$1@xuxa.iecc.com>
Source record: 87614
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.broadcasting,rec.radio.cb,rec.radio.info,rec.radio.scanner,rec.radio.shortwave

That shouldn't be all that shocking. If it was a "wire" it could have been for almost anything. Remember he is a "Sitting President" with all of the crazy security that goes with the job. It could have been something to do with that. You didn't see any overt signs of security while watching the debates on TV, but I'll bet you there was plenty you didn't see.

--
Leland C. Scott
KC8LDO

Wireless Network
Mobile computing
on the go brought
to you by Micro$oft

"political commentator" <political.commentator@gmail.com> wrote in message
news:clhdv8$ank$1@xuxa.iecc.com...
>
> New evidence emerging in "BUSH WIRED" story - see the wire....
>
>
> During the second Presidential debate on Friday, October 8th President
Bush
> adjusted his tie; a gesture which exposed a black object contrasting a
white
> shirt.
>
> Look:
>
> http://puppetstring.blogspot.com
>
> Is it a wire?
>
> No registration is required, you can post anonymously
>
>
>

# 1318. Re: Is that a radio wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-26 04:14:02 UTC
From: DLD <cindyd1@ptd.net>
Message-ID: <clkiua$on2$1@xuxa.iecc.com>
Source record: 87613
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.broadcasting,rec.radio.cb,rec.radio.info,rec.radio.scanner,rec.radio.shortwave

You know...maybe you need to have your medicine adjusted??

political commentator wrote:
> New evidence emerging in "BUSH WIRED" story - see the wire....
>
>
> During the second Presidential debate on Friday, October 8th President Bush
> adjusted his tie; a gesture which exposed a black object contrasting a white
> shirt.
>
> Look:
>
> http://puppetstring.blogspot.com
>
> Is it a wire?
>
> No registration is required, you can post anonymously
>
>
>

# 1319. Re: antenna patch

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-26 04:19:15 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <Ldkfd.201368$as2.7047@bignews3.bellsouth.net>
Source record: 87612

"Christophe" <diconice.sav@free.fr> wrote in message
news:417d2476$0$29491$626a14ce@news.free.fr...
> Hello,
>
> i look for info to buy antenne patch on 150Mhz?
>
> thanks.
>
> Christophe

Sounds like you need one of those Fractal Antennas embedded onto a piece of
duct tape.
I hear they're so good you don't need coax.
:-)

---
Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.781 / Virus Database: 527 - Release Date: 10/22/2004

# 1320. Re: Beam antenna for satilite question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-26 04:34:21 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <Wrkfd.201467$as2.181395@bignews3.bellsouth.net>
Source record: 87615

"KD4PQF" <willybe@isp.com> wrote in message
news:1f9bb743.0410251736.6d0aa369@posting.google.com...
> Question on a beam antenna can i put a extra reflector 90 deg or on
> the botom of the director so the signal will also be reflected more
> upwared sence i dont have a tracking roater will this help on high
> altatude passes?

you might want to just use a 1/4-wave vertical or a dipole
beams are good if you aim them where you want to hear
but if they're not aimed they are worse than a rubber-duck.
the gain in the forward direction is at the expense of other directions.

---
Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.781 / Virus Database: 527 - Release Date: 10/22/2004

# 1321. Re: American Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-26 04:46:59 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <5bkrn0d5cjpl26e4ca792vd9ojt7j347o5@4ax.com>
Source record: 87616

On Mon, 25 Oct 2004 19:06:10 -0400, william ewald
<wewald@bellsouth.net> wrote:

>>Since you are an American, Richard, and one company enjoys patent protection
>>there, is there any reason not to believe that you are not referring to that
>>company?
>
>Yeah, Richard, where is your patriotism?

Hi Bill,

Hmmm. Do 2800 new voters added to the rolls count for anything these
days? Let's see, my citizenship status qualifies enough for me to
have gathered 50 Absentee Ballots. Last night I rubbed shoulders with
Congressmen at a Fï¿½te (nothing rubbed off tho'). However, we did win
the raffle of a trip to South Africa (hmmm, suppose this may be a
subtle hint?).

>Maybe John Ashcroft needs to look into your opinion of fractal
>antennas....

Isn't he the guy in the Bunker who comes up to see what color his
shadow is? Yellow: 6 more weeks of threats of terror, followed by
light bombing.

73's
Richard Clark, KB7QHC

# 1322. Re: Gain per unit length of boom

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-26 04:47:32 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0410252047.5f9ccbce@posting.google.com>
Source record: 87617

"Chuck" <wa7rai@raibeam.com> wrote in message
>
> Hi MK,
>
> When I stated:
> > > (it's not a dummy
> > > load as one would generally deduce from
> > > the above description)
> I wasn't joking. The fact that you've
> never known a vertical antenna to
> behave in this manner, is not surprising.

Oh, I have, but the lower noise was always due to increased losses
somewhere in the system...
>
> The purpose of my experiment was to
> investigate the possibility of loading
> (shortening) an element while still
> maintaining a relatively normal BW.

Adding loss would do that...
>
> Avoiding parallel wires and coils, the
> resulting loading system is what I
> call E-field loading (perhaps a poor
> choice of terms) - a method of
> conductive loading that resulted in
> reducing the off-resonance reactance
> in the FP.

Still doesn't say too much...

I suspect it is effecting the
> susceptance of the voltage loop in
> some way.

Ditto...But I don't know how long the vertical is. Being you need
loading, I'll assume it's shorter than a quarter wave...Dunno...This
just doesn't really add up to me...I've fed verticals in many points,
at the max current, or max voltage points, or in between, and have
never seen this to effect noise pickup. Again, the only thing I've
ever seen to reduce noise, *and* keep the same pattern, was to
increase loss.

The unexpected bonus, of
> course, was a reduced susceptibility

> to electrical noise.

Due to extra losses? If you reduce susceptibility to far field electrical noise, you are also reducing the desired signals at those same angles. Rf is rf...What am I missing here? Myself, I consider the so called "low noise" antennas to be old wives tails...
Even the shielded electrostatic versions, for the most part. IE: shielded loops, etc...They are no more quiet than any other well balanced loop made of normal wire windings. The shielded design is not to magically reduce noise, it's to ensure balance. I'm not trying to be ornery, but so far, what I read is not flushing to *me*...But I don't believe in "low noise" antennas. To me, low far field noise compared to another vertical antenna at the same angles and same polarization, means increased loss somewhere if the pattern hasn't changed. :( MK

# 1323. Re: The "TRICK" to TV 'type' Coax Cable [Shielded] SWL Loop Antennas {RHF}

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-26 04:55:03 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0410252055.64d23556@posting.google.com>
Source record: 87618
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

rhf-newsgroups@pacbell.net (RHF) wrote in message
news:<ff3145e8.0410250112.24a2abe3@posting.google.com>...
> YODAR,
>
> The "TRICK" to TV 'type' Coax Cable [Shielded] SWL Loop Antennas {RHF}
> http://groups.yahoo.com/group/Shortwave-SWL-Antenna/message/1626
>
> I too tried to build a Coax Cable [Shielded] Loop Antenna
> that was made of "TV type Coax" that had a 'Shield' made
> of Foil and about 33% Braid. The Results were very poor.

Hummm... It *should* have worked just fine. Besides being lousy to
solder to, there is nothing wrong with a foil shield. Thats solid
coverage, and better than strands of wire. The coax shield for a SW or
MW loop should be fairly non critical. The only purpose is to ensure
balance. MK

# 1324. Re: The "TRICK" to TV 'type' Coax Cable [Shielded] SWL Loop Antennas {RHF}

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-26 05:04:35 UTC
From: Telamon <telamon_spamshield@pacbell.net.is.invalid>
Message-ID: <telamon_spamshield-2C9E63.22043325102004@newssvr13-ext.news.prodigy.com>
Source record: 87620
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

In article <25eb70d7.0410252055.64d23556@posting.google.com>,
nm5k@wt.net (Mark Keith) wrote:

> rhf-newsgroups@pacbell.net (RHF) wrote in message
> news:<ff3145e8.0410250112.24a2abe3@posting.google.com>...
> > YODAR,
> >
> > The "TRICK" to TV 'type' Coax Cable [Shielded] SWL Loop Antennas {RHF}
> > http://groups.yahoo.com/group/Shortwave-SWL-Antenna/message/1626
> >
> > I too tried to build a Coax Cable [Shielded] Loop Antenna
> > that was made of "TV type Coax" that had a 'Shield' made
> > of Foil and about 33% Braid. The Results were very poor.
>
> Hummm... It *should* have worked just fine. Besides being lousy to
> solder to, there is nothing wrong with a foil shield. Thats solid
> coverage, and better than strands of wire. The coax shield for a SW or
> MW loop should be fairly non critical. The only purpose is to ensure
> balance. MK

"The Results were very poor" is not very much information to go on to
any conclusion or solution.

Maybe he was expecting more output from the loop than he got. A shielded
loop that is not very large is not going to have a big output. Maybe he
screwed up and did not have a shield gap.

--
Telamon
Ventura, California

# 1325. Re: An easy experiment with a coil PS

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-26 05:08:34 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10nrmumm2eqhtc1@corp.supernews.com>
Source record: 87619

Knarf wrote:

> PS should I have used an actual helix? Very tedious to structure with code,
> although have done it in other models. Noticed that the current in and out
> of the coil is vastly different when compared with using the lumped element
> model.

Most of the available implementations of NEC-2 include the ability to
generate a helix. Look for information on a 'GH' command.

Roy Lewallen, W7EL

# 1326. Re: How reject QRM from the fence ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-26 05:21:45 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0410252121.462aa4df@posting.google.com>
Source record: 87521

"Thierry" <-> wrote in message news:<417b924a$1@news.vo.lu>...
> Hi,
>
> I friend of mine, ham, is handicapped and cannot move without his wheelchair
> He experiments QRM on low bands 160/80/75m induced by the fence installed by
> his neighbor
> I don't know what kind of fence it is, and if it is really close to his
> house or miles away...
>
> He would like to know if a rotaty loop antenna could remove this QRM ?

Yes, if it's from a single source, and it will also tell him which direction it's in. Well, it's bidirectional, but common sense will tell which way it probably is, if you already know about the fence...But yes, most likely a small loop would take most of it out. Maybe even all of it. The nulls on a good balanced loop are sharp and deep. I know my loops can take a single noise source right out of the picture. Or an undesired station for that matter if it's ground wave... MK

# 1327. Re: Butternut HF6V question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-26 06:48:46 UTC
From: Mogens <mogens@skalikkebrugespetsens.dk>
Message-ID: <417df34f$0$198$edfadb0f@dread12.news.tele.dk>
Source record: 87522

"Henry Kolesnik" <kolesnik@sbcglobal.net> wrote in message
news:ndifd.231$fC4.26@newssvr11.news.prodigy.com...
> Google it as I recall there's a manual online. I think ownership has
> changed.
>

Yes, it can be found at www.bencher.com or more precisly at
http://www.bencher.com/pdfs/00366IZV.pdf

Mogens

# 1328. Re: Hy-Gain 18AVT/WB-S

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-26 10:55:48 UTC
From: Denis O' Flynn <ei6hb@eircom.net>
Message-ID: <03qfd.40046$Z14.14518@news.indigo.ie>
Source record: 87523

Thanks lads for the help. I will cut abt 35 cm and cut back. Hopefully with
my MFJ-269, I should be able to sort it out.
Agn many thanks

Denis EI6HB.

PS. Those of you that have used it - how did it perform say on 40 & 80M?????

Denis
"w9gb" <onw9mapsgb@no.arrl.spam.net> wrote in message
news:nEZed.2295$R05.1982@attbi_s53...
> "ON5MJ" <my_call_sign@skynet.be> wrote in message
> news:417ba2bc$0$22736$ba620e4c@news.skynet.be...
>>I have the same copy of the manual but I never paid attention to the
>> handwriting as my aerial is complete. It looks like very possible. The
>> only
>> way to be sure is to unwrap my antenna. Sorry for not doing it.
>>
>> 73 de ON5MJ - Jacques.
>>
>
> I can't believe that the measurements are that critical.
>
> Denis can always start with 30 cm, and then trim - if required easier than
> lengthening the radial ! :-)
>
> w9gb
>
>

# 1329. Re: An easy experiment with a coil PS

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-26 11:09:44 UTC
From: Knarf <ve6cb@NOSPAM.telus.net>
Message-ID: <Yfqfd.1248$E93.534@clgrps12>
Source record: 87524

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:10nrmumm2eqhtc1@corp.supernews.com...
> Knarf wrote:
>
>> PS should I have used an actual helix? Very tedious to structure with
>> code, although have done it in other models. Noticed that the current in
>> and out of the coil is vastly different when compared with using the
>> lumped element model.
>
> Most of the available implementations of NEC-2 include the ability to
> generate a helix. Look for information on a 'GH' command.
>
> Roy Lewallen, W7EL

Thanks for the info. Should have studied the NEC 2 manual more carefully.
It is on page 20 with no card picture.

Regards,

Frank

# 1330. Re: An easy experiment with a coil

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-26 11:51:10 UTC
From: Knarf <ve6cb@NOSPAM.telus.net>
Message-ID: <OSqfd.1249$E93.781@clgrps12>
Source record: 87525

"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:417dc78f$1_4@127.0.0.1...
> Knarf wrote:
>> Could not get it to work. Below is my NEC2 code ( heavily segmented as
>> it is easier to figure out where to place the source and load). What am
>> I doing wrong? Resonant on 7.25 MHz before extending the antenna.
>> Approaches resonance on 22 MHz, when extended, with very high series L.
>> A 40 m dipole is resonant on the 3rd harmonic anyway so all you are doing
>> is isolating the extra 1/4 wave by placing a very high impedance at the
>> quarter wave point. I guess I missed something, be interested in any
>> comments.
>
> The lumped point inductance will definitely not give the correct results.
> The coil needs to use the helix feature of EZNEC+ 4.0. I constructed an
> 8-sided coil out of segments in EZNEC 2.0 and the results can be viewed
> at:
>
> http://www.qsl.net/w5dxp/octcoil2.gif
>
> The dimensions and inductance are not perfect but the idea is perfectly
> clear. There's 0.11 amp at the bottom of the coil and 0.57 amps at the
> top of the coil. By playing with lengths of wire and frequency, I've seen
> the current at the bottom of the coil as low as 0.005 amps while the
> current at the top of the coil was about 0.6 amps.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>
> -----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet
> News==----
> http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000
> Newsgroups
> ---= East/West-Coast Server Farms - Total Privacy via Encryption =---

Sorry that was really dumb, did not think before I posted the response. I
was certainly aware that the currents in, and out, of a lumped element
inductor are the same. I had recently modeled a short monopole with a
physical, octagonal, helix (Now I learn about the GH card!). The difference
between the lumped element and distributed inductor is significant, although
the gains are almost identical from both models.

73,

Frank

## 1331. Re: Is that a radio wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-26 12:41:41 UTC
From: political.commentator@gmail.com
Message-ID: <cllgm5$ak2$1@xuxa.iecc.com>
Source record: 87526
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.broadcasting,rec.radio.cb,rec.radio.info,rec.radio.scanner,rec.radio.shortwave

> And if it was a wire... your point is?
>
> Professor
> www.telstar-electronics.com

The point is you want to elect a cheater.

Thats not a very smart thing to do is it?

.....
http://puppetstring.blogspot.com/
http://politicalcommentator.blogspot.com/

>
> "political commentator" <political.commentator@gmail.com> wrote in message
news:<clhdv8$ank$1@xuxa.iecc.com>...
> > New evidence emerging in "BUSH WIRED" story - see the wire....
> >
> >
> > During the second Presidential debate on Friday, October 8th President Bush
> > adjusted his tie; a gesture which exposed a black object contrasting a white
> > shirt.
> >
> > Look:
> >
> > http://puppetstring.blogspot.com
> >
> > Is it a wire?
> >
> > No registration is required, you can post anonymously

# 1332. Re: antenna patch

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-26 12:47:26 UTC
From: samsvl@nlr.nl
Message-ID: <Xns958E96759C306samsvlnlrnl@137.17.128.14>
Source record: 87527

"Christophe" <diconice.sav@free.fr> wrote in news:417d2476$0$29491
$626a14ce@news.free.fr:

> Hello,
>
> i look for info to buy antenne patch on 150Mhz?
>
> thanks.
>
> Christophe
>
>

Find somebody with the book:
Computer-Aided Design of Microstrip Antennas for Wireless Applications

It contains several programs to calculate a.o. dimensions for patch
antennas.

Sam

## 1333. Re: antenna patch

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-26 12:49:08 UTC
From: samsvl@nlr.nl
Message-ID: <Xns958E96BF436F7samsvlnlrnl@137.17.128.14>
Source record: 87528

samsvl@nlr.nl (Sam Storm van Leeuwen) wrote in
news:Xns958E96759C306samsvlnlrnl@137.17.128.14:

> "Christophe" <diconice.sav@free.fr> wrote in news:417d2476$0$29491
> $626a14ce@news.free.fr:
>
>> Hello,
>>
>> i look for info to buy antenne patch on 150Mhz?
>>
>> thanks.
>>
>> Christophe
>>
>>
>
> Find somebody with the book:
> Computer-Aided Design of Microstrip Antennas for Wireless Applications
>
> It contains several programs to calculate a.o. dimensions for patch
> antennas.
>
> Sam
>
>

Or download them from:
http://www.ece.mcmaster.ca/faculty/georgieva/antenna_dload/sainati/

Sam

# 1334. Re: An easy experiment with a coil PS

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-26 13:13:32 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <417e4b9b_4@127.0.0.1>
Source record: 87529

Roy Lewallen wrote:
> Most of the available implementations of NEC-2 include the ability to
> generate a helix. Look for information on a 'GH' command.

Some time ago, I generated an 8-sided coil for EZNEC 2.0. It was a
lot easier than I thought at first. Here's one turn of dia=13" at
about one turn per inch. Note 'y' always equals the x value from two
lines up.

x y z
.5, .2, 4.00
.2, .5, 4.01
-.2, .5, 4.02
-.5, .2, 4.03
-.5, -.2, 4.04
-.2, -.5, 4.05
.2, -.5, 4.06
.5, -.2, 4.07

--
73, Cecil http://www.qsl.net/w5dxp

----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

# 1335. Re: antenna patch

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-26 14:09:57 UTC
From: Christophe <diconice.sav@free.fr>
Message-ID: <417e5842$0$21425$626a14ce@news.free.fr>
Source record: 87530

Thanks

Christophe

"Sam Storm van Leeuwen" <samsvl@nlr.nl> a crit dans le message de
news:Xns958E96BF436F7samsvlnlrnl@137.17.128.14...
> samsvl@nlr.nl (Sam Storm van Leeuwen) wrote in
> news:Xns958E96759C306samsvlnlrnl@137.17.128.14:
>
> > "Christophe" <diconice.sav@free.fr> wrote in news:417d2476$0$29491
> > $626a14ce@news.free.fr:
> >
> >> Hello,
> >>
> >> i look for info to buy antenne patch on 150Mhz?
> >>
> >> thanks.
> >>
> >> Christophe
> >>
> >>
> >
> > Find somebody with the book:
> > Computer-Aided Design of Microstrip Antennas for Wireless Applications
> >
> > It contains several programs to calculate a.o. dimensions for patch
> > antennas.
> >
> > Sam
> >
> >
>
> Or download them from:
> http://www.ece.mcmaster.ca/faculty/georgieva/antenna_dload/sainati/
>
> Sam
>

# 1336. Re: An easy experiment with a coil

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-26 15:03:34 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <eipsn0938old1kn61acvr584bsm76cotgk@4ax.com>
Source record: 87531

On Tue, 26 Oct 2004 11:51:10 GMT, "Knarf" <ve6cb@NOSPAM.telus.net>
wrote:

>The difference
>between the lumped element and distributed inductor is significant, although
>the gains are almost identical from both models.

Hi Frank,

You've hit the nail on the head (although I've seen it claimed it
makes a 12dB difference!).

Rarely do we get any practical correlation from this "sky is falling"
oops "current is dropping" argument.

73's
Richard Clark, KB7QHC

# 1337. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-26 15:28:31 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <z2ufd.31630$OD2.9354@bgtnsc05-news.ops.worldnet.att.net>
Source record: 87532

Cecil,

I am fully aware of the "original argument". To confess my bias, I agree with Tom D. and Tom R. There is no "current drop" ever, and there is no current change in an ideal inductor. W8JI explains in some detail why real coils show different currents at each end.

My response was aimed at your little demo circuit. Let me share one of my own.

```
-----------------------------------------------------
+ | | |
------------ ----------- -----------
| | | Ra | | Rb |
| 1 V DC | | 100 Ohm | | 100 Ohm |
| 20 mA | | 10 mA | | 10 mA |
------------ ----------- -----------
- | | |
-----------------------------------------------------
```

The source provides 20 mA, but Rb passes only 10 mA. Would you call this a "current drop"? Most people would say that the total current has simply divided into multiple paths.

Your RG-58 transmission line example is no different. The current from the source is not lost or "dropped". It simply finds other paths in addition to the "load" to return back to the source. Antennas and loading coils exhibit the same phenomenon.

The error is in considering the transmission line as simply two non-interacting conductors that somehow magically enforce a fixed impedance, Zo. If the conductors did not interact there would be no fixed impedance; it would not be a transmission line.

Your reference to simple DC analysis ignores the interaction between the transmission line conductors. If you modeled the problem correctly you would need to account for the leakage current. There would be no "current drop" and no mystery.

The laws of electromagnetics do not change in any fundamental way until relativistic and/or quantum considerations come into the picture. There are "different horses for different courses", and there are different "computationally preferred" approaches to different electromagnetic configurations. Often there is best choice for practical reasons, but that does not make the more difficult computation wrong.

73,
Gene
W4SZ

Cecil Moore wrote:
> Gene Fuller wrote:
>
>> No one has ever discussed simple series DC concepts except you.
>
>
> Don't you recognize "17th century DC concepts" as sarcasm?
>
>> What is wrong is calling a lossy transmission line a "simple series
>> circuit" and then misapplying the theory.
>
>
> That's exactly my point, Gene. I think you missed it. What is
> wrong is assuming a simple one-way series current flowing through
> a point inductance in a *standing-wave* mobile antenna containing
> a one foot by one foot 75m *bugcatcher* coil that occupies more
> than 60 degrees of an electrical 1/4 wavelength.
>
> The original argument originated over on eHam.net. Tom, W8JI
> said there is no change in current from end to end in a loading
> coil. Yuri disagreed. Everything else is a fallout from that
> original argument.

# 1338. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-26 15:40:19 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <Ddufd.31668$OD2.27258@bgtnsc05-news.ops.worldnet.att.net>
Source record: 87533

Richard,

In simple terms Kirchhoff's loop law says that if we correctly add all of the potential changes around a closed loop we do not end up with a different potential than we had initially. (It does not say just how to handle the computation.)

As you may know, there are some non-conservative systems in which this behavior is not true. Traversing around a loop exhibits a spiral behavior. The measured quantity continues to increase (or decrease) with every pass around the loop. Kirchhoff's loop law says this sort of spiral does not happen in an electrical circuit.

Computation is "intractable" for distributed RF networks, but the principle is still valid.

73,
Gene
W4SZ

Richard Clark wrote:

> On Mon, 25 Oct 2004 16:46:50 GMT, Gene Fuller <W4SZzzzzzz@att.net>
> wrote:
>
>
>>I am not sure why you think there is a violation of Kirchhoff.
>
>
> Hi Gene,
>
> Kirchhoff does not allow for circuits of dimensions that are
> appreciable size with respect to wavelength. Simple reason is that
> you should then shrink down the unspecified lead length (for voltage
> law) into the stray, equivalent and dimensionless components. This is
> outrageously flaunted in this group, and then couched as examples of
> modeling failure (when it is in fact modeler - the human component -
> failure).
>
> This is the "intractability" you speak of - the neglect of the proper
> rendering of the network in dimensionless terms.
>
> 73's
> Richard Clark, KB7QHC

# 1339. Re: An easy experiment with a coil PS

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-26 15:44:13 UTC
From: Knarf <ve6cb@NOSPAM.telus.net>
Message-ID: <hhufd.3597$VA5.925@clgrps13>
Source record: 87534

"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:417e4b9b_4@127.0.0.1...
> Roy Lewallen wrote:
>> Most of the available implementations of NEC-2 include the ability to
>> generate a helix. Look for information on a 'GH' command.
>
> Some time ago, I generated an 8-sided coil for EZNEC 2.0. It was a
> lot easier than I thought at first. Here's one turn of dia=13" at
> about one turn per inch. Note 'y' always equals the x value from two
> lines up.
>
> x y z
> .5, .2, 4.00
> .2, .5, 4.01
> -.2, .5, 4.02
> -.5, .2, 4.03
> -.5, -.2, 4.04
> -.2, -.5, 4.05
> .2, -.5, 4.06
> .5, -.2, 4.07
>
> --
> 73, Cecil http://www.qsl.net/w5dxp

Your helix is far more elegant than my octagonal structure, where each turn is in the same plane, and a 90 deg segment then connects to the next turn.

I have just experimented with the GH card -- combined with the GM card. It appears to be an excellent method of constructing a helix. I have not seriously attempted to determine the optimal segmentation, but as long as the segments are less than or equal to the turn spacing the results seem acceptable -- as with parallel transmission line models. I have also attempted to maintain the same segmentation on wires external to the helix, and to use the same wire size. While these structures are interesting, from the point of view of analyzing current distribution on an antenna, there seems to be very little difference in the actual performance of an antenna modeled with lumped element components. What I have learned (as mentioned in a previous posting) is that it is possible to predict, with a fair degree of accuracy, the actual inductance of a helix.

73,

Frank

# 1340. Re: An easy experiment with a coil

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-26 16:16:59 UTC
From: Knarf <ve6cb@NOSPAM.telus.net>
Message-ID: <%Lufd.4189$VA5.2696@clgrps13>
Source record: 87535

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:eipsn0938old1kn61acvr584bsm76cotgk@4ax.com...
> On Tue, 26 Oct 2004 11:51:10 GMT, "Knarf" <ve6cb@NOSPAM.telus.net>
> wrote:
>
>>The difference
>>between the lumped element and distributed inductor is significant,
>>although
>>the gains are almost identical from both models.
>
> Hi Frank,
>
> You've hit the nail on the head (although I've seen it claimed it
> makes a 12dB difference!).
>
> Rarely do we get any practical correlation from this "sky is falling"
> oops "current is dropping" argument.
>
> 73's
> Richard Clark, KB7QHC

Hi Richard,

Cannot see where anybody could get a12 dB difference, since you can only model a lumped element inductance, you could not build it to test the performance. I have spent many hours this past week modeling short, loaded, monopoles, over a perfect ground -- triggered by the previous thread -- just to see what results I could get. An 86.5" vertical, center loaded, with a lumped element inductor resonating in the 21 MHz range, exhibits an input impedance of 20.91 Ohms, and a maximum gain of +4.754 dBi. The same antenna with a distributed 12 turn helix, of 2.5" diameter, and 6" long, has an input impedance of 18.98 Ohms, and a gain of +4.783 dBi. The helix alone has a gain of -25 dBi. Transcribing the NEC output file to an Excel spread sheet produces some very interesting current plots.

73,

Frank

# 1341. Re: Gain per unit length of boom

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-26 16:19:24 UTC
From: richardharrison@webtv.net
Message-ID: <29062-417E790C-415@storefull-3254.bay.webtv.net>
Source record: 87536

Art Unwin wrote:
"You place another element closely (behind usually) to the driven element such that with a "critical coupling" the feed impedance increases to the desired level."

That`s not the way it works. More coupling lowers the feed impedance.

Check under "Close-spaced Arrays -- Super-=gain Antennas" on page 906 of Terman`s 1955 edition:
"A characteristic of all close-spaced arrays is that as the ratio of size to antenna gain is reduced, the radiation resistance also goes down;---." The Yagi antenna of Fig.23-39, and the corner reflector, represent almost the best that can be achieved in a compact array."

Notice that Terman said "almost". There`s always hope, but looking for more gain by element spacing changes has been thoroughly investigated. This is akin to to drilling in a field which is already overdrilled in the search for oil.

Moving elements closer together brings the radiation resustance down. The elements don`t know if a coupled element is ahead of the driven element or behind it. It brings the drivepoint impedance down for the driven element. Impedance adjustment is done through transformation.

Best regards, Richard Harrison, KB5WZI

## 1342. Re: antenna patch

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-26 16:44:48 UTC
From: Mark <bigfathhairybiker@MAILhot.com>
Message-ID: <417e7e05$0$1558$ed9e5944@reading.news.pipex.net>
Source record: 87537

"Sam Storm van Leeuwen" <samsvl@nlr.nl> wrote in message > Or download them from:
> http://www.ece.mcmaster.ca/faculty/georgieva/antenna_dload/sainati/
>
> Sam
>

Blimey, then you don't have to go through hundreds of pointless emails like you do
to get nothing on fractal antennas!

:-)

# 1343. Re: Gas lines and ground rods

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-26 17:19:15 UTC
From: richardharrison@webtv.net
Message-ID: <4141-417E8713-360@storefull-3253.bay.webtv.net>
Source record: 87538

WNTU4 wrote:
"Now I know I can`t attach ground to gas line."

The gas line is likely grounded on the house side of the meter. Stoves, etc. have e3lectrical appurtenances which otherwise might shock you..

The supply side of the meter is likely nominally insulated to avoid overloading the cathodic protection rectifier which maintains a fraction of a volt on steel pipes and other gas supply equipment. This tiny potential ensures that ions flow toward the apparatus rather than away, which would erode the stuff away.

You only must avoid shorting out the cathodic protection potential. Easy since its insulation is already very poor. Pipe dope has cracks. The rectifier has a large ground bed for its return. The rectifier has leaky arresters, etc. It`s no real problem to have a very near ground rod. The gas pipe is subjected to plenty of lightning current during thunderstorms.

Best regards, Richard Harrison, KB5WZI

# 1344. Antenna links on the web.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-26 18:13:54 UTC
From: electronics_tech <electronics_tech@295.ca>
Message-ID: <2u7if4F27t7ruU1@uni-berlin.de>
Source record: 87539

Hello,

During my time surfing the web I have found a number of useful amateur radio antenna links. I would like to share some of these with you to add to your bookmarks or favorite links. For the online calculators I've found that if you save them in Internet Explorer as a web archive .mht file you can use the calculator offline because it is an HTML file. I hope you find these links as useful as I have.

Jim
73 de VE3JGE

www.packetradio.com/jpol.htm j-pole calculator

www.packetradio.com/ant.htm ham antennas

www.hamuniverse.com/antennas.html good antenna info. and calculators

www.geocities.com/n2uhc/homebrew.html good homebrew antenna and radio site

http://users.erols.com/k3mt/k3mt.htm homebrew antennas

http://autoinfo.smartlink.net/kq6rh/antenna/Ant_magi.htm wire antennas

www.qsl.net/kd4sai/distance.html line of sight calculator

www.qsl.net/w4sat/antenna.htm antenna elmer (good site)

www.rigpix.com/index.shtml not about antennas but pictures of ham rigs and scanners

All links verified active as of 2:01 PM 10/26/04.

# 1345. Re: Gain per unit length of boom

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-26 18:34:12 UTC
From: Chuck <wa7rai@raibeam.com>
Message-ID: <hSwfd.12590$6P5.7674@okepread02>
Source record: 87541

Mark Keith <nm5k@wt.net> wrote in message
news:25eb70d7.0410252047.5f9ccbce@posting.google.com...
> "Chuck" <wa7rai@raibeam.com> wrote in message
> >
<... >
>
> I suspect it is effecting the
> > susceptance of the voltage loop in
> > some way.
>
>
> Ditto...But I don't know how long the vertical is. Being you need
> loading, I'll assume it's shorter than a quarter wave...

Hi Mark,

Yes, its vertical height is 23 ft. It is elevated
6' above ground with elevated horizontal radials.
The input Z at the junction of the radials and DE
is 50 ohm j0 with no matching system. There is
a current un-un at the feedpoint, thus no
common-mode, and the Tx line is 1wl electrical.

The experiments with this type of loading was
begun around '95 - '96, and this vertical antenna
was erected in '98. It has been through near I/2
solar cycle, and all seasons. Time has a way of
dispelling illusions, and don't think for a moment
that I ignored the "loss" question.

> To me, low far field noise

Do not assume all noise is the same or
that all originates in the 'far field' as EM
particle-waves.

73 de Chuck, WA7RAI

# 1346. Re: Gain per unit length of boom

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-26 18:36:36 UTC
From: Chuck <wa7rai@raibeam.com>
Message-ID: <hSwfd.12591$6P5.1429@okepread02>
Source record: 87540

aunwin@insightbb.com <aunwin@insightbb.com@insightbb.com> wrote in message
news:vYcfd.314858$3l3.210855@attbi_s03...
<... >

> May I also point out that if you allow elements to vary in diameter and
> height and still keeping to
> a .1 boom length, gain increases until ultimately the elements form a
> combined parabolic shape
> and progressively place rearward radiation energy into the forward direction
> until the ultimate is reached,
> where there is no radiation to the rear and F/B is absent. I would remind
> you that the top element is
> going to be designed to be disconnected and connected to ground to
> determine impact on static noise.
> It is also my intent to string nylon from one end of the elements to the
> other, progresively tightening it
> until a suitable bend or bow is put in place such that the beam width
> narrows to somewhere in the
> range of 30 degrees. (ala point to point to get highes gain together with a
> lower take off angle)
>
> I do have a fold over tower by the way over 1/2 acre of clear ground with
> embedded wire screen
> and I am surrouded by sloping farmland with Drummond soil..The 1 inch
> hardline is routed undeground.
> The above experimentation is why I have so much fun with antenna
> experimenting where in other
> ways the experts would say it is useless to try before I even put my shoes
> on.
>
> Regards
> Art

Many years ago - before computer modeling -
I was talking with a fellow down under (VK or
ZL, I can't recall) who was experimenting with
parabolic elements. Like you, he was using
fishing line to achieve the shape.

Don't let banal criticism get under your skin...
not everyone feels secure when venturing to
the outer edge of the envelope <g>

73 de Chuck, WA7RAI

# 1347. Re: Gain per unit length of boom

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-26 18:43:28 UTC
From: "aunwin@insightbb.com"
Message-ID: <kVwfd.319153$D%.929@attbi_s51>
Source record: 87542

Then the book is incorrect assuming you are using statements corectly
Art
"Richard Harrison" <richardharrison@webtv.net> wrote in message
news:29062-417E790C-415@storefull-3254.bay.webtv.net...
> Art Unwin wrote:
> "You place another element closely (behind usually) to the driven
> element such that with a "critical coupling" the feed impedance
> increases to the desired level."
>
> That`s not the way it works. More coupling lowers the feed impedance.
>
> Check under "Close-spaced Arrays -- Super-=gain Antennas" on page 906 of
> Terman`s 1955 edition:
> "A characteristic of all close-spaced arrays is that as the ratio of
> size to antenna gain is reduced, the radiation resistance also goes
> down;---." The Yagi antenna of Fig.23-39, and the corner reflector,
> represent almost the best that can be achieved in a compact array."
>
> Notice that Terman said "almost". There`s always hope, but looking for
> more gain by element spacing changes has been thoroughly investigated.
> This is akin to to drilling in a field which is already overdrilled in
> the search for oil.
>
> Moving elements closer together brings the radiation resustance down.
> The elements don`t know if a coupled element is ahead of the driven
> element or behind it. It brings the drivepoint impedance down for the
> driven element. Impedance adjustment is done through transformation.
>
> Best regards, Richard Harrison, KB5WZI
>

# 1348. Re: Ready for the polls in Kentucky!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-26 20:13:50 UTC
From: kashe@sonic.net
Message-ID: <vrbtn0d7n0s74v5bgnmfc3r4jtvicbskt1@4ax.com>
Source record: 87543

On Fri, 22 Oct 2004 20:43:30 GMT, microwaves@blueyonder.co.uk (Peter)
wrote:

>On Thu, 21 Oct 2004 12:33:11 -0400, "Smitty"
><SmittyS@"nospam"alltel.net> wrote:
>
>>VOTE REPUBLICAN!
>>
>>VOTE BUSH!
>>
>>
>>I'm Registered for to Vote Republican for 2004 here in Kentucky
>>
>>My Dad is Registered to Vote Republican for 2004 here in Kentucky
>>
>>My Mom is Registered to Vote Republican for 2004 here in Kentucky
>>
>>My 3 Brothers are Registered to Vote Republican for 2004 here in Kentucky
>>
>>My 5 sisters are Registered to Vote Republican for 2004 here in Kentucky
>>
>>Both my Gandpa's and Grandma's are registered to Vote Repubican for 2004
>>here in Kentucky
>>
>>My 5 Uncles and my 7 aunts are registered to Vote Republican for 2004 here
>>in Kentucky
>
>
>You poor misguided fool ...

Well, it does go to verify what they say about genetics in
some parts of the country.

I do wonder what happened to the other Grandma and Grandpa.
And all the cousins.

# 1349. Re: An easy experiment with a coil

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-26 21:44:58 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <417ec372_4@127.0.0.1>
Source record: 87544

Richard Clark wrote:
> Rarely do we get any practical correlation from this "sky is falling"
> oops "current is dropping" argument.

Asserting that the argument is about any practical correlation is
a diversion of the issue. THE ARGUMENT IS ABOUT THE CURRENT IN A
LOADING COIL, not about the radiation pattern. The radiation pattern
is completely irrelevant to the argument. One side says the current
is absolutely constant except for radiation. The other side says it
is not constant (except for special cases). An electrical 1/4WL loaded
mobile antenna is not one of the special cases.

Nice attempt at changing the subject - didn't work.

In the process of learning why the superposed current is not constant
through a loading coil in a standing-wave antenna, you will also learn
something about standing-wave antennas in general.
--
73, Cecil http://www.qsl.net/w5dxp

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---= East/West-Coast Server Farms - Total Privacy via Encryption =---

## 1350. New Radio Forum

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-26 21:56:38 UTC
From: Goetz <goetz@goetz-von.com>
Message-ID: <clmh6m$qja$1@titan.btinternet.com>
Source record: 87545

A brand new Forum at www.euronium.de
for Amateur and Business Radio.

Kind regards,
Goetz.

# 1351. Re: Beam antenna for satilite question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-26 21:59:18 UTC
From: Ralph Mowery <rmowery28146@earthlink.net>
Message-ID: <WMzfd.8530$5i5.440@newsread2.news.atl.earthlink.net>
Source record: 87546

> "KD4PQF" <willybe@isp.com> wrote in message
> news:1f9bb743.0410251736.6d0aa369@posting.google.com...
> > Question on a beam antenna can i put a extra reflector 90 deg or on
> > the botom of the director so the signal will also be reflected more
> > upwared sence i dont have a tracking roater will this help on high
> > altatude passes?
>
> you might want to just use a 1/4-wave vertical or a dipole
> beams are good if you aim them where you want to hear
> but if they're not aimed they are worse than a rubber-duck.
> the gain in the forward direction is at the expense of other directions.

YOu don't usually use 1/4 verticals for over head passes of the sats. They have a big null overhead. Use a horizontal dipole or beter a dipole over a reflector. Think about 3/8 wavelength is the best distance for the dipole over the reflector but need to check that .

# 1352. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-26 22:12:56 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <417eca05_4@127.0.0.1>
Source record: 87547

Gene Fuller wrote:

> Cecil,
>
> I am fully aware of the "original argument". To confess my bias, I agree
> with Tom D. and Tom R. There is no "current drop" ever, and there is no
> current change in an ideal inductor. W8JI explains in some detail why
> real coils show different currents at each end.

So do I, Gene. Have you looked at my web page? A standing-wave antenna contains standing waves. The forward and reflected currents superpose. If there is any phase shift at all through a 75m bugcatcher coil, the current at the bottom and at the top will NOT be equal even if the forward current through the coil is constant and the reflected current through the coil is constant. If you disagree with me and agree with Tom, you are saying there is zero phase shift through a one foot by one foot bugcatcher coil. Do you really want to assert that?

How can there possibly be a current drop across a dimensionless point? The fact is, a dimensionless point inductance does NOT and can NOT exist in reality. So are more interested in playing games in your mind than you are in the real world? The argument is about real world 75m bugcatcher coils, not ideal inductances that exist only in someone's wet dream.

Your example is a circuit, not a distributed network, and is therefore irrelevant to this discussion. Distributed networks behave different enough from lumped circuits that the lumped circuit shortcuts just don't work on distributed networks. Why you and Tom want to force your lumped constant concepts unquestioned upon the field of distributed network problems is beyond me.

> Your RG-58 transmission line example is no different. The current from
> the source is not lost or "dropped". It simply finds other paths in
> addition to the "load" to return back to the source. Antennas and
> loading coils exhibit the same phenomenon.

Some of the power radiated from an antenna does NOT return to the source. It may even escape to outer space. Power lost from the system causes a current drop. In fact, it is hard to separate the H-field from the E-field for RF. I am amazed how you guys have been seduced by your math models. Reality is supposed to dictate math models, not vise versa.
--
73, Cecil http://www.qsl.net/w5dxp

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# 1353. Re: An easy experiment with a coil PS

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-26 22:16:36 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <417ecadd_4@127.0.0.1>
Source record: 87548

Knarf wrote:
> While these structures are interesting, from
> the point of view of analyzing current distribution on an antenna, there
> seems to be very little difference in the actual performance of an antenna
> modeled with lumped element components.

Don't let the logical diversions throw you. The argument is, and always
has been, about the current in a loading coil, not about the radiation
pattern. The radiation pattern is absolutely irrelevant to the argument.
--
73, Cecil http://www.qsl.net/w5dxp

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# 1354. Re: An easy experiment with a coil

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-26 22:18:35 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <417ecb4e$1_4@127.0.0.1>
Source record: 87549

Knarf wrote:
> Cannot see where anybody could get a12 dB difference, ...

Unless I missed something, no one ever asserted a 12 dB difference.
Such is just a logical diversion away from the "current through the
coil" issue.
--
73, Cecil http://www.qsl.net/w5dxp

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# 1355. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-26 22:51:51 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <byAfd.776670$Gx4.113148@bgtnsc04-news.ops.worldnet.att.net>
Source record: 87550

Cecil,

Until you try to understand the difference between current in a
conductor and power radiated into space, this is a hopeless debate.

There are several important relationships among charge, current,
E-fields, voltage, and H-fields. However, current is not the same as
H-field, voltage is not the same as E-field, and charge is not the same
as a radiation field.

Back to Physics 101 for you.

73,
Gene
W4SZ

Cecil Moore wrote:

[big snip]

>
> Some of the power radiated from an antenna does NOT return to the source.
> It may even escape to outer space. Power lost from the system causes
> a current drop. In fact, it is hard to separate the H-field from the
> E-field for RF. I am amazed how you guys have been seduced by your math
> models. Reality is supposed to dictate math models, not vise versa.

# 1356. Small VHF/UHF TV Broadcast Ant. (Channelmaster vs. Winegard)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-26 22:55:32 UTC
From: L Cooke <lcooke@cisco.com>
Message-ID: <EBAfd.23745$1f.15226@tornado.tampabay.rr.com>
Source record: 87551
Cross-posted to: rec.radio.amateur.antenna,alt.tv.tech.hdtv

I am trying to select a very small VHF/UHF outdoor antenna for a new home in Orlando. Was looking at the Channelmaster 3010 (Stealth) and Winegard GS-2200 batwing. Both rather unconventional, and surely won't perform like a larger UHF yagi.

Anyone had experience with these, or any other very small outdoor TV antennas?
Any testing you know of that show one is better (or sucks less) than the other?

CM3010:
http://www.channelmaster.com/home.htm
Winegard GS-2200:
http://www.winegard.com/offair/pdf/WC-810.pdf

Thanks,
Larry (KA4MFJ)

# 1357. Re: An easy experiment with a coil

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-26 23:14:37 UTC
From: Knarf <ve6cb@NOSPAM.telus.net>
Message-ID: <xTAfd.1393$E93.998@clgrps12>
Source record: 87552

Richard Clark mentioned that some people claim a 12 dB difference between
lumped element and distributed loading.

73,

Frank.

"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:417ecb4e$1_4@127.0.0.1...
> Knarf wrote:
>> Cannot see where anybody could get a12 dB difference, ...
>
> Unless I missed something, no one ever asserted a 12 dB difference.
> Such is just a logical diversion away from the "current through the
> coil" issue.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>
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## 1358. Re: Is that a radio wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-26 23:49:43 UTC
From: Tom Ring <news0000@taring.org>
Message-ID: <417ee298$0$91012$39cecf19@news.twtelecom.net>
Source record: 87553

political commentary wrote:

>
> The point is you want to elect a cheater.
>
> Thats not a very smart thing to do is it?
>
>

You mean as opposed to a confessed war criminal, who in congressional hearings admitted to burning villages, killing innocent women and children, and shooting unarmed enemy soldiers in the back as they ran? That kind of thing? Like Kerry?

tom
K0TAR

# 1359. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-27 00:11:44 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <417ee5da_4@127.0.0.1>
Source record: 87554

Gene Fuller wrote:

> Cecil,
> Until you try to understand the difference between current in a
> conductor and power radiated into space, this is a hopeless debate.

Isn't there a direct correlation between current in a radiator and
power radiated into space? Assuming the conservation of energy
principle holds, power radiated into space reduces the current
in a radiator (since the ratio of the forward voltage in a radiator
and the forward current in a radiator is proportional to the power
available). Sorry to say, Gene, the current drops in proportion to
the drop in the voltage in a fixed Z0 environment. If a terminated
traveling-wave antenna were 100 wavelengths long, it's current at
the termination would be a small percentage of the source current.

Hint: ExH = Poynting Vector power and the E/H ratio is constant.

Until you give up on the possibility of a point inductance
existing in reality, this is a hopeless debate. I can't believe
you are defending an indefensible model of reality, so I can only
conclude that you are defending the irrational premise of a friend.
You and I are obviously on the same side of physics and you are to be
commended for being a good enough friend to that un-named someone
to set aside your knowledge of physics and side with his/her
irrational premises, arguments, and conclusions. The reason that
I don't have any such friends is that I wouldn't accept that kind
of support if I was wrong. But I do understand it is human nature
to respond in such a manner.

The ARRL Antenna Book and various other publications give the
characteristic impedance of a horizontal single-wire TRANSMISSION
LINE over ground as:

Z0 = 138*log(4h/d) where 'h' is the height and 'd' is the diameter

Doesn't a "horizontal single-wire transmission line over ground"
sound a lot like a dipole made out of #16 wire 24 feet above ground
having a Z0 of 600 ohms?

If you ignore that question, I will assume your position on this
subject has everything to do with friendship and nothing to do
with physics. Actually, like Richard C. and I, I don't think
you and I have any argument about physics.
--
73, Cecil http://www.qsl.net/w5dxp

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# 1360. Re: Gain per unit length of boom

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-27 00:13:56 UTC
From: "aunwin@insightbb.com"
Message-ID: <8LBfd.253236$wV.135788@attbi_s54>
Source record: 87555

No Chuck, that is not going to happen.When you are an experimentor you don't have to be hindered by diminishing returns as it is the chase that is the most rewarding part. There has been many oilfields and silver mines that have been abandoned ONLY because of diminishing returns which is usually because of greed and not for the joy of doing what one likes to do.
For those who quote from books without a real understanding of what is being said are doomed to only quoting books
without the self determination needed to explore new frontiers. A book is to be used to explore the past but to explore the
future one has to avoid generating bed sores and procrastination and explore what the future holds for those who are willing to move without fear of failure.
On diminishing rear radiation, that can only go so far as the efficiency relates heavily to the ratio of the element diameters
relative to spacing of elements on the reflective medium, so one can easily be disapointed when stacking two 2 element beams using only 4 elements instead of the many required for a "dish", but the low take off angle can still be reproduced as well as a narrow beam with extra gain if the corrective reflective contour can be obtained. Sure beats argueing about current decline versus current drop versus current flow or what pack of wolves to join.
By the way, do you know if dish antennas suffer from static like dipole arrays? I would think they would be immune
but I really don't know.
Regards
Art KB9MZ XG

"Chuck" <wa7rai@raibeam.com> wrote in message
news:hSwfd.12591$6P5.1429@okepread02...
>
> aunwin@insightbb.com <aunwin@insightbb.com@insightbb.com> wrote in message
> news:vYcfd.314858$3l3.210855@attbi_s03...
> <... >
>
> > May I also point out that if you allow elements to vary in diameter and
> > height and still keeping to
> > a .1 boom length, gain increases until ultimately the elements form a
> > combined parabolic shape
> > and progressively place rearward radiation energy into the forward
direction
> > until the ultimate is reached,
> > where there is no radiation to the rear and F/B is absent. I would
remind
> > you that the top element is

> > going to be designed to be disconnected and connected to ground to
> > determine impact on static noise.
> > It is also my intent to string nylon from one end of the elements to the
> > other, progresively tightening it
> > until a suitable bend or bow is put in place such that the beam width
> > narrows to somewhere in the
> > range of 30 degrees. (ala point to point to get highes gain together
with a
> > lower take off angle)
> >
> > I do have a fold over tower by the way over 1/2 acre of clear ground
with
> > embedded wire screen
> > and I am surrouded by sloping farmland with Drummond soil..The 1 inch
> > hardline is routed undeground.
> > The above experimentation is why I have so much fun with antenna
> > experimenting where in other
> > ways the experts would say it is useless to try before I even put my
shoes
> > on.
> >
> > Regards
> > Art
>
> Many years ago - before computer modeling -
> I was talking with a fellow down under (VK or
> ZL, I can't recall) who was experimenting with
> parabolic elements. Like you, he was using
> fishing line to achieve the shape.
>
> Don't let banal criticism get under your skin...
> not everyone feels secure when venturing to
> the outer edge of the envelope <g>
>
> 73 de Chuck, WA7RAI
>
>

# 1361. Re: An easy experiment with a coil

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-27 00:15:04 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <417ee6ba_4@127.0.0.1>
Source record: 87556

Knarf wrote:
> Richard Clark mentioned that some people claim a 12 dB difference between
> lumped element and distributed loading.

Ask him to please produce the posting. A 100% difference between
lumped element and distributed loading wouldn't produce much of
a difference in the radiation pattern. Sorry Reg, most of the
radiation happens below the coil, whether lumped or distributed.
--
73, Cecil http://www.qsl.net/w5dxp

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http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
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# 1362. Help 6BTV

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-27 00:25:59 UTC
From: fjx1@aol.comnospam
Message-ID: <20041026202559.05710.00006720@mb-m14.aol.com>
Source record: 87557

I've but 6 BTV s together past wirh no problem, now I have one with new one. It's fine on 10, 15 ,20 and 40. But 3 t0 1 on 30 and 7 t0 1 on 80. Dimensions and traps are right. Tried adjusting 30 meter coil per their instuctions and nothing changes even though a 1/4 inch change is supoose to affect it 5000Khz! I used penetrox from a klm antenna when assembling it. Does anyone know if that causes problems. Dont know why 40 would be ok and 30 not. Checked to be sure they didnt give me wrong trap and they did not. Advice please.

Tks,

Gerry fjx1 @aol.com

# 1363. Re: Beam antenna for satilite question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-27 00:38:46 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <35Cfd.210060$as2.137268@bignews3.bellsouth.net>
Source record: 87558

> > you might want to just use a 1/4-wave vertical or a dipole
> > beams are good if you aim them where you want to hear
> > but if they're not aimed they are worse than a rubber-duck.
> > the gain in the forward direction is at the expense of other directions.
>
> YOu don't usually use 1/4 verticals for over head passes of the sats.
They
> have a big null overhead. Use a horizontal dipole or beter a dipole over
a
> reflector. Think about 3/8 wavelength is the best distance for the dipole
> over the reflector but need to check that .
>
I'll buy that - point is though - beam's a no

---
Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.781 / Virus Database: 527 - Release Date: 10/21/2004

# 1364. Re: Is that a radio wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-27 00:40:53 UTC
From: "aunwin@insightbb.com"
Message-ID: <p8Cfd.428007$mD.240457@attbi_s02>
Source record: 87559

But that is totally untrue!
He was invited to Congress to pass on information that was spoken about
at a Vietnam veterans get together that occured a few weeks earlier.
He at no time admitted to first hand knoweledge on the veracity of the
cruelty claims made at that convention.
And I do not believe the GOP claims otherwise.
He was at that time a veteran himself as well as being against the war but
if I remember correctly many
showed their feelings by crossing the border, where as he protested using
the ideals that all fight for
.....free speech .
Bush chose the service aproach that many tried for and was successful, both
he and Kerry
were just part of those times and neither should be villified.
If one has first hand knoweledge then he has the right of free speech, when
one uses
free speech without true knoweledge and for his own means then he/she
betrays the ideals for
which one fights for.
Art

"Tom Ring" <news0000@taring.org> wrote in message
news:417ee298$0$91012$39cecf19@news.twtelecom.net...
> political commentary wrote:
>
> >
> > The point is you want to elect a cheater.
> >
> > Thats not a very smart thing to do is it?
> >
> >
>
> You mean as opposed to a confessed war criminal, who in congressional
> hearings admitted to burning villages, killing innocent women and
> children, and shooting unarmed enemy soldiers in the back as they ran?
> That kind of thing? Like Kerry?
>
> tom
> K0TAR
>
>

# 1365. Re: Gas lines and ground rods

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-27 01:22:05 UTC
From: "aunwin@insightbb.com"
Message-ID: <1LCfd.10906$HA.6034@attbi_s01>
Source record: 87560

"Richard Harrison" <richardharrison@webtv.net> wrote in message
news:4141-417E8713-360@storefull-3253.bay.webtv.net...
> WNTU4 wrote:
> "Now I know I can`t attach ground to gas line."
>
> The gas line is likely grounded on the house side of the meter. Stoves,
> etc. have e3lectrical appurtenances which otherwise might shock you..
>
snip.
>
> Best regards, Richard Harrison, KB5WZI
>
The gas line is "likely grounded " should not to be used as a
measure of confidence
to ground to a gas line . If something does happen you may not be around to
hear the words
"Oops I'm sorry, how was I expected to know!"
Don't assume anything
Art

# 1366. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-27 02:22:10 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <mDDfd.601$zx1.518@newssvr13.news.prodigy.com>
Source record: 87561

Gene Fuller wrote:
> Cecil,
>
> Until you try to understand the difference between current in a
> conductor and power radiated into space, this is a hopeless debate.
>
> There are several important relationships among charge, current,
> E-fields, voltage, and H-fields. However, current is not the same as
> H-field, voltage is not the same as E-field, and charge is not the same
> as a radiation field.
>
> Back to Physics 101 for you.
>
> 73,
> Gene
> W4SZ
>
> Cecil Moore wrote:
>
> [big snip]
>
>>
>> Some of the power radiated from an antenna does NOT return to the source.
>> It may even escape to outer space. Power lost from the system causes
>> a current drop. In fact, it is hard to separate the H-field from the
>> E-field for RF. I am amazed how you guys have been seduced by your math
>> models. Reality is supposed to dictate math models, not vise versa.
>
>

Hi Gene,
you may never have had an exchange with Cecil. Cecil will use
any tactic in the book to "win" an argument, the more illogical
the better. Moreover, he's absolutely dogged in his determination to
have the last word, going so far as to make completely idiotic posts
in the hopes that his opponent will quit in disgust. Unless you
want to engage in a 500 post exercise in absolute lunacy, you might
want to ignore Cecil altogether, as several of us do.
73,
Tom Donaly, KA6RUH

# 1367. L-match tuner with off-center dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-27 03:04:46 UTC
From: pdrunen@aol.com
Message-ID: <20041026230446.13148.00003679@mb-m28.aol.com>
Source record: 87562

Hi Group,

I picked up a nice AEA AT-300 tuner. It's a bit different than anything I used before from MFJ. MFJ has the one lnductor with two tuning caps where as the AT-300 has two inductors and one tune cap.

I connected me off-center dipole, which has 80 feet on one leg and 40 on the other and is fed with a 4:1 balun at the input and 50 feet of RG-58 down to the tuner.

I also have a MFJ-269 antenna analizer and would tune the AT-300 using the reading for the impedance and shooting for 50 ohms with no reactance as indicated by the MFJ readout.

Well, now, it was very hard to tune and I found that it was more like trial and error.
So, is there a method of set up to maybe select one inductor for best 50 ohm resistive and then select the other for best minimum reactance and then tune out the VSWR with the capacitor?

De KJ4UO.....

Paul

# 1368. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-27 03:23:42 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <2xEfd.777576$Gx4.690635@bgtnsc04-news.ops.worldnet.att.net>
Source record: 87563

Tom,

Every few months I suffer a complete breakdown in common sense, and I engage with Cecil.

You may recall the record-setting threads on Steve Best vs. Walt Maxwell. Then there was the endless debate on optical reflections, built around Cecil's gross misinterpretation of the Melles-Griot Optics Guide.

You are right; it is time to go back to my cave for a while.

73,
Gene
W4SZ

Tom Donaly wrote:

>
> Hi Gene,
> you may never have had an exchange with Cecil. Cecil will use
> any tactic in the book to "win" an argument, the more illogical
> the better. Moreover, he's absolutely dogged in his determination to
> have the last word, going so far as to make completely idiotic posts
> in the hopes that his opponent will quit in disgust. Unless you
> want to engage in a 500 post exercise in absolute lunacy, you might
> want to ignore Cecil altogether, as several of us do.
> 73,
> Tom Donaly, KA6RUH

# 1369. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-27 03:28:55 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <417f1410_4@127.0.0.1>
Source record: 87564

Tom Donaly wrote:
> you may never have had an exchange with Cecil. Cecil will use
> any tactic in the book to "win" an argument, the more illogical
> the better. Moreover, he's absolutely dogged in his determination to
> have the last word, going so far as to make completely idiotic posts
> in the hopes that his opponent will quit in disgust. Unless you
> want to engage in a 500 post exercise in absolute lunacy, you might
> want to ignore Cecil altogether, as several of us do.

One wonders if you are capable of anything except ad nauseum ad hominem attacks. So far, my grouchy ten-year-old grand-neice could have made your postings.

Tom, so far, you have offered absolutely nothing of a technical nature to prove me wrong. That's a big clue that you have nothing to offer. If you can easily prove me wrong, why haven't you? If you can prove me to be technically wrong, I will yield to you in respect. However, until I am proven wrong or sentenced to house arrest, you can expect me to have an attitude similar to Galileo's up against the Catholic priests. Is one iota of proof too much to ask?

Balanis says you are wrong! Kraus says you are wrong! EZNEC even says you are wrong! Today I created a one foot high helical antenna that packs 90 electrical degrees into one foot. The current at the bottom is one amp. The current at the top is zero amps. Want me to send you the EZNEC file?

Here's your chance. Exactly what is the difference between a 1/2WL #16 single-wire transmission line 24 feet above ground and a #16 1/2WL dipole 24 feet above ground? Please be technically specific. Your feelings don't matter.
--
73, Cecil http://www.qsl.net/w5dxp

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# 1370. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-27 03:33:40 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <oGEfd.32129$OD2.8081@bgtnsc05-news.ops.worldnet.att.net>
Source record: 87565

Cecil,

Were you there when the Germans bombed Pearl Harbor?

(That was a great movie. Are you related to the late John Belushi?)

My views are completely based on physics principles. I have endless argument with your views on physics.

I have never met nor corresponded with Tom D., Tom R. or Roy L. I just happen to agree with their public writings.

73,
Gene
W4SZ

Cecil Moore wrote:

>
> If you ignore that question, I will assume your position on this
> subject has everything to do with friendship and nothing to do
> with physics. Actually, like Richard C. and I, I don't think
> you and I have any argument about physics.

# 1371. Re: antenna patch

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-27 03:39:52 UTC
From: Andrey <a8421@intergate.bc.ca>
Message-ID: <10nu5s4rvvpkabd@corp.supernews.com>
Source record: 87566

It seems to me a patch antenna for 150 MHz either be huge or will have very low efficiency.

If you need small size, how about multi-turn wire coil wound on ferrite rode?

(I hope I do not steer you too far from what you thought.)

Andrey

"Christophe" <diconice.sav@free.fr> wrote in message
news:417e5842$0$21425$626a14ce@news.free.fr...
> Thanks
>
> Christophe
>
>
> "Sam Storm van Leeuwen" <samsvl@nlr.nl> a crit dans le message de
> news:Xns958E96BF436F7samsvlnlrnl@137.17.128.14...
> > samsvl@nlr.nl (Sam Storm van Leeuwen) wrote in
> > news:Xns958E96759C306samsvlnlrnl@137.17.128.14:
> >
> > > "Christophe" <diconice.sav@free.fr> wrote in news:417d2476$0$29491
> > > $626a14ce@news.free.fr:
> > >
> > >> Hello,
> > >>
> > >> i look for info to buy antenne patch on 150Mhz?
> > >>
> > >> thanks.
> > >>
> > >> Christophe
> > >>
> > >>
> > >
> > > Find somebody with the book:
> > > Computer-Aided Design of Microstrip Antennas for Wireless Applications
> > >
> > > It contains several programs to calculate a.o. dimensions for patch
> > > antennas.
> > >
> > > Sam
> > >
> > >
> >

> > Or download them from:
> > http://www.ece.mcmaster.ca/faculty/georgieva/antenna_dload/sainati/
> >
> > Sam
> >
>
>

# 1372. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-27 03:45:07 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <417f17d7$1_4@127.0.0.1>
Source record: 87567

Gene Fuller wrote:

> Tom, Every few months I suffer a complete breakdown in common sense, and I
> engage with Cecil.
>
> You may recall the record-setting threads on Steve Best vs. Walt
> Maxwell.

I hope you remember that I didn't agree with either side. I stated that
they were two inches apart and neither one of them would budge one inch.
Dr. Best denied there was any such thing as interference at a match point.
At the time, Walt didn't understand the pseudo S-parameter analysis that
Dr. Best was using.

> Then there was the endless debate on optical reflections, built
> around Cecil's gross misinterpretation of the Melles-Griot Optics Guide.

The "lost" reflected power joins the forward wave? That's what they say.
There's no way for reflected power to join the forward wave without changing
direction. Seems I am up against the Spanish Inquisition. Is "Fuller" Spanish? :-)

> You are right; it is time to go back to my cave for a while.

I am always quick to admit an error, like the 20dB vs 40dB error I made
yesterday. Nobody has offered one iota of technical proof that I am wrong.
I didn't realize that the science of physics depends on a newsgroup democracy.

I find it amazing that the only argument you guys can come up with is
an ad hominem attack. That's usually the last resort of someone who has
lost the argument. If I am so technically incorrect, is one iota of
technical proof too much to ask? It is, of course, if this is a good-
old-boys EM religion discussion rather than a technical discussion.
--
73, Cecil http://www.qsl.net/w5dxp

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# 1373. Re: Gain per unit length of boom

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-27 03:58:57 UTC
From: richardharrison@webtv.net
Message-ID: <12294-417F1D01-518@storefull-3252.bay.webtv.net>
Source record: 87568

Art Unwin wroyte:
"Then the book is incorrect assuming you are using statements
correctly."

I included page numbers to make it easy to check the accuracy of my
translation.

Art said elements are "critically coupled". Critical coupling is defined
as maximum energy transfer at the resonant frequency.

Coupling additions (more loads) to a feedpoint lowers the impedance
unless additional measures (transformations) are taken. Coupling more
loads to a feedpoint is tantamount to paralleling resistors. Terman is
right.

Best regards, Richard Harrison, kB5WZI

## 1374. Re: Is that a radio wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-27 04:11:03 UTC
From: clifto <clifto@clifto.com>
Message-ID: <cln74n$72k$1@xuxa.iecc.com>
Source record: 87569
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.broadcasting,rec.radio.cb,rec.radio.info,rec.radio.scanner,rec.radio.shortwave

political commentary wrote:

>> And if it was a wire... your point is?
>
> The point is you want to elect a cheater.

Evidence of cheating, please.

--
NBC News reported Monday night that those 380 tons of missing explosives were
already gone when U.S. troops arrived at the Al-Qaqaa weapons installation
in April 2003 - one day after Saddam's government was toppled.
New York Times 18 MONTHS LATE, CBS was saving it for election eve ambush!

## 1375. Re: Is that a radio wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-27 04:11:06 UTC
From: Lenny <latvia_lenny@yahoo.com>
Message-ID: <cln74q$74d$1@xuxa.iecc.com>
Source record: 87471
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.broadcasting,rec.radio.cb,rec.radio.info,rec.radio.scanner,rec.radio.shortwave

"political commentary" <political.commentator@gmail.com> wrote in
message news:cllgm5$ak2$1@xuxa.iecc.com...
>> And if it was a wire... your point is?
>>
>> Professor
>> www.telstar-electronics.com
>
>
>
>
> The point is you want to elect a cheater.
>
> Thats not a very smart thing to do is it?
>

Actually, the point is that you are engaging in rank speculation with
no proof, and assuming that it is so because you want it to be so.
That's not a very smart thing to do is it?

## 1376. Re: Is that a radio wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-27 04:11:07 UTC
From: M-Tech <mechtechllc@yahoo.com>
Message-ID: <cln74r$753$1@xuxa.iecc.com>
Source record: 87570
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.broadcasting,rec.radio.cb,rec.radio.info,rec.radio.scanner,rec.radio.shortwave

No. Instead I'll listen to a bunch of bs spewed by people on a NG that keep changing their identity. Without a doubt THEY are much more credible.

Now run off and join the rest of the flock.

Don

"political commentary" <political.commentator@gmail.com> wrote in message news:cllgm5$ak2$1@xuxa.iecc.com...
>> And if it was a wire... your point is?
>>
>> Professor
>> www.telstar-electronics.com
>
>
>
>
> The point is you want to elect a cheater.
>
> Thats not a very smart thing to do is it?
>
> ..................................
> http://puppetstring.blogspot.com/
> http://politicalcommentator.blogspot.com/
>
>
>
>
>>
>> "political commentator" <political.commentator@gmail.com> wrote in
>> message news:<clhdv8$ank$1@xuxa.iecc.com>...
>> > New evidence emerging in "BUSH WIRED" story - see the wire....
>> >
>> >
>> > During the second Presidential debate on Friday, October 8th President
>> > Bush
>> > adjusted his tie; a gesture which exposed a black object contrasting a
>> > white
>> > shirt.
>> >
>> > Look:
>> >
>> > http://puppetstring.blogspot.com

>> >
>> > Is it a wire?
>> >
>> > No registration is required, you can post anonymously
>

# 1377. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-27 04:13:34 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <417f1e87$1_4@127.0.0.1>
Source record: 87472

Gene Fuller wrote:
> Are you related to the late John Belushi?)

According to DNA analysis, most Americans of European decent are amazingly closely related - Nth cousins. Bush is supposed to be a cousin of Kerry's. Besides London, the city with the highest population named "Moore" is Houston, TX, 90 miles South of me.

> My views are completely based on physics principles. I have endless
> argument with your views on physics.

Then why are ad hominem attacks all you have to offer? Why not share some of you physics knowledge with us? I've got Balanis, Kraus, Johnson, and Hecht on my side. Who's on your side?

> I have never met nor corresponded with Tom D., Tom R. or Roy L. I just
> happen to agree with their public writings.

I suspect Roy L., being a reasonable fellow, is in the process of changing his mind given the latest EZNEC helical evidence. How about you?

Please pick one item of physics with which you disagree with me and let's discuss it in a gentlemanly fashion. There's some pretty savvy people on this newsgroup who agree with me. Perhaps, the argument is only a semantics problem, like the definition of "drop" and "flow". It's really hard to see how an E-field can drop but not flow and an H-field can flow but not drop.

Pick one simple topic upon which you think you and I disagree. So far, you have posted nothing except ad hominem attacks. That's not a good way to impress people and win technical arguments. I think you are a better person than that.

Here's a topic if you can't think of one. How can a one foot long section of transmission line exhibit a phase shift if a one foot long coil doesn't?
--
73, Cecil http://www.qsl.net/w5dxp
"The current and voltage distributions on open-ended wire antennas are similar to the standing wave patterns on open-ended transmission lines ... Standing wave antennas, such as the dipole, can be analyzed as traveling wave antennas with waves propagating in opposite directions (forward and backward) and represented by traveling wave currents If and Ib ..."
_Antenna_Theory_, Balanis, Second Edition, Chapter 10, page 488 & 489

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

# 1378. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-27 04:27:46 UTC
From: richardharrison@webtv.net
Message-ID: <12294-417F23C2-524@storefull-3252.bay.webtv.net>
Source record: 87473

Gene, W4SZ wrote:
"However, current is not the same as H-field,--."

No, but current causes the H-field.

An antenna loading coil has volts and amps from both directions in a standing-wave antenna. These two waves create the standing-wave pattern seen along the antenna`s length (including the coil).

The coil has a finite length so the sum of the forward and reflected waves make volts, amps, and impedances which vary from coil end to coil end,

Best regards, Richard Harrison, KB5WZI

# 1379. Re: Gas lines and ground rods

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-27 05:06:40 UTC
From: richardharrison@webtv.net
Message-ID: <10196-417F2CE0-499@storefull-3257.bay.webtv.net>
Source record: 87476

Art Unwin wrote:
"The gas line is "likely grounded" should not be used as a measure of confidence to ground to a gas line."

That`s correct. Plastic pipe is now sometimes used for gas and it certainly won`t serve as a ground.

The questioner wrote:
"Now I know I can`t attach ground to gas line."
His question was about proximity of a ground rod to a gas line. My answer was not to worry about ground rod proximity to a gas line so long as he doesn`t short out the cathodic protection potential which is imposed on a metal line on the feed side of the meter.

Best regards, Richard Harrison, KB5WZI

# 1380. Re: Gain per unit length of boom

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-27 05:10:29 UTC
From: "aunwin@insightbb.com"
Message-ID: <85Gfd.322157$D%.14270@attbi_s51>
Source record: 87474

"Critical" coupling is a coupling that achieves that which is desired in the application involved.
Thus "critical" coupling varies dependent on the situation or application involved which in your
'specific ' application may well be defined as you stated but is not all inclusive..
That's how I see it and what I spoke of is confirmed by NEC and by personal experimentation
If you choose to disagree that is your choice but goes directly to my statement regarding quoting
of text without full understanding.
I have no interest in argueing the fact, try somebody else.
Art

"Richard Harrison" <richardharrison@webtv.net> wrote in message news:12294-417F1D01-518@storefull-3252.bay.webtv.net...
> Art Unwin wroyte:
> "Then the book is incorrect assuming you are using statements
> correctly."
>
> I included page numbers to make it easy to check the accuracy of my
> translation.
>
> Art said elements are "critically coupled". Critical coupling is defined
> as maximum energy transfer at the resonant frequency.
>
> Coupling additions (more loads) to a feedpoint lowers the impedance
> unless additional measures (transformations) are taken. Coupling more
> loads to a feedpoint is tantamount to paralleling resistors. Terman is
> right.
>
> Best regards, Richard Harrison, kB5WZI
>

## 1381. Any opinion about the Terk AF1 antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-27 05:11:30 UTC
From: linuxlover992000@yahoo.com
Message-ID: <7687bfbd.0410262111.574f9041@posting.google.com>
Source record: 87475

Is it really that magical (for FM at least) as described here?

http://tinyurl.com/5mt6c

If it is indeed that good, how does it coincide with the mockery this guy makes from *any* omni direction here?

http://www.kyes.com/antenna/antennatypes/antennatypes.html

The description & specs for the Terk AF1 can be found here:
http://www.universal-radio.com/catalog/mwant/3569.html

Thanks,
Lynn

## 1382. Administrivia: Is that a radio wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-27 06:54:07 UTC
From: "Steven J. Sobol" <sjsobol@JustThe.net>
Message-ID: <clngmf$sp1$1@xuxa.iecc.com>
Source record: 87477
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.broadcasting,rec.radio.cb,rec.radio.info,rec.radio.scanner,rec.radio.shortwave

Forgive me for letting this thread continue as long as it has. I won't be posting it to rec.radio.broadcasting, and it's probably offtopic for the other groups too.

--
JustThe.net Internet & New Media Services, http://JustThe.net/
Steven J. Sobol, Geek In Charge / 888.480.4NET (4638) / sjsobol@JustThe.net
PGP Key available from your friendly local key server (0xE3AE35ED)
Apple Valley, California Nothing scares me anymore. I have three kids.

# 1383. Re: Hy-Gain 18AVT/WB-S

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-27 07:20:00 UTC
From: TT <iliumconstruction@earthlink.net>
Message-ID: <A_Hfd.10760$ta5.7435@newsread3.news.atl.earthlink.net>
Source record: 87478

Denis O' Flynn wrote:

>Thanks lads for the help. I will cut abt 35 cm and cut back. Hopefully with
>my MFJ-269, I should be able to sort it out.
>Agn many thanks
>
>Denis EI6HB.
>
>PS. Those of you that have used it - how did it perform say on 40 & 80M?????
>
>
>
Well, it works great on 40 meters, and not very well on 80 meters.

# 1384. Re: antenna patch

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-27 08:02:47 UTC
From: samsvl@nlr.nl
Message-ID: <Xns958F663339544samsvlnlrnl@137.17.128.14>
Source record: 87479

"Andrey" <a8421@intergate.bc.ca> wrote in
news:10nu5s4rvvpkabd@corp.supernews.com:

> It seems to me a patch antenna for 150 MHz either be huge or will have
> very low efficiency.

Not that bad. About 50 x 50 cm for a square patch on FR4.

Sam

>
> If you need small size, how about multi-turn wire coil wound on ferrite
> rode?
>
> (I hope I do not steer you too far from what you thought.)
>
> Andrey
>
>
> "Christophe" <diconice.sav@free.fr> wrote in message
> news:417e5842$0$21425$626a14ce@news.free.fr...
>> Thanks
>>
>> Christophe
>>
>>
>> "Sam Storm van Leeuwen" <samsvl@nlr.nl> a crit dans le message de
>> news:Xns958E96BF436F7samsvlnlrnl@137.17.128.14...
>> > samsvl@nlr.nl (Sam Storm van Leeuwen) wrote in
>> > news:Xns958E96759C306samsvlnlrnl@137.17.128.14:
>> >
>> > > "Christophe" <diconice.sav@free.fr> wrote in news:417d2476$0$29491
>> > > $626a14ce@news.free.fr:
>> > >
>> > >> Hello,
>> > >>
>> > >> i look for info to buy antenne patch on 150Mhz?
>> > >>
>> > >> thanks.
>> > >>
>> > >> Christophe
>> > >>
>> > >>
>> > >
>> > > Find somebody with the book:

>> > > Computer-Aided Design of Microstrip Antennas for Wireless
>> > > Applications
>> > >
>> > > It contains several programs to calculate a.o. dimensions for
>> > > patch antennas.
>> > >
>> > > Sam
>> > >
>> > >
>> >
>> > Or download them from:
>> > http://www.ece.mcmaster.ca/faculty/georgieva/antenna_dload/sainati/
>> >
>> > Sam
>> >
>>
>>
>
>
>

## 1385. Sabin

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-27 09:30:28 UTC
From: "William E. Sabin" <sabinw@mwci-news>
Message-ID: <10nuqmvmtfjm5f7@corp.supernews.com>
Source record: 87480

This is a test.

Bill W0IYH

# 1386. Re: The "TRICK" to TV 'type' Coax Cable [Shielded] SWL Loop Antennas {RHF}

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-27 12:38:56 UTC
From: Yodar <yodar@cfl.rr.com>
Message-ID: <AFMfd.45062$yP2.14745@tornado.tampabay.rr.com>
Source record: 87481
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

GOTCHA!
(printed for use)

Thanks a million

yodar

RHF wrote:
> YODAR,
>
> The "TRICK" to TV 'type' Coax Cable [Shielded] SWL Loop Antennas {RHF}
> http://groups.yahoo.com/group/Shortwave-SWL-Antenna/message/1626
>
> I too tried to build a Coax Cable [Shielded] Loop Antenna
> that was made of "TV type Coax" that had a 'Shield' made
> of Foil and about 33% Braid. The Results were very poor.
>
> Then I Got An IDEA "*" ! { K I S S }
>
> Why not use "Pre-Made" Parts :o) WHAT ?
>
>

# 1387. Re: Small VHF/UHF TV Broadcast Ant. (Channelmaster vs. Winegard)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-27 12:45:21 UTC
From: Joel Graffman <JRGraff@bellsouth.net>
Message-ID: <tNMfd.216846$as2.179451@bignews3.bellsouth.net>
Source record: 87482
Cross-posted to: rec.radio.amateur.antenna,alt.tv.tech.hdtv

Have you looked at the central FL Local HDTV Reception group in the AVS forum?

# 1388. Re: An easy experiment with a coil

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-27 12:52:26 UTC
From: Knarf <ve6cb@NOSPAM.telus.net>
Message-ID: <eSMfd.8594$E93.3398@clgrps12>
Source record: 87483

"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:417ec372_4@127.0.0.1...
> Richard Clark wrote:
>> Rarely do we get any practical correlation from this "sky is falling"
>> oops "current is dropping" argument.
>
> Asserting that the argument is about any practical correlation is
> a diversion of the issue. THE ARGUMENT IS ABOUT THE CURRENT IN A
> LOADING COIL, not about the radiation pattern. The radiation pattern
> is completely irrelevant to the argument. One side says the current
> is absolutely constant except for radiation. The other side says it
> is not constant (except for special cases). An electrical 1/4WL loaded
> mobile antenna is not one of the special cases.

Sorry, this may sound dumb, I think I must have missed the point. Why are
people arguing about current in a loading coil? NEC, and experiment, seem
to provide the answer.

73,

Frank

## 1389. New Butternut question (tunung stub)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-27 12:57:21 UTC
From: Mike Coslo <mjc5remove@psu.edu>
Message-ID: <417F9B31.1010908@psu.edu>
Source record: 87484

On my HF6V, it calls for a "tuning stub" of a 1/4 wavelength to tune the antenna at 20 meters. The stub is made of 75 ohm coax, and is 11'4" long, after which the rest of the coax to the shack is 50 ohm.

How exactly does this work? There is an explanation of sorts in the manual, but nothing I can sink my teeth into.

One of the first things I trip over is that an 11'4" piece of 75 ohm coax is not a quarter wave in the 20 meter band - more like 17+ MHz.

The book notes that the 20 meter portion is more like 100 ohms, and the stub allows your rig to see 50.

If the antenna works, that's cool, but I'd sure like to know a little more detail.

- Mike KB3EIA -

# 1390. Re: Sabin

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-27 13:07:50 UTC
From: "Harold E. Johnson" <W4ZCB@mchsi.com>
Message-ID: <G4Nfd.257585$wV.8750@attbi_s54>
Source record: 87485

> This is a test.
>
> Bill W0IYH

GM Bill, good to hear from you. It Works!

Regards

W4ZCB

# 1391. Re: Sabin

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-27 13:15:46 UTC
From: "William E. Sabin" <sabinw@mwci-news>
Message-ID: <10nv7tdkc0ih9de@corp.supernews.com>
Source record: 87486

Harold E. Johnson wrote:
>>This is a test.
>>
>>Bill W0IYH
>
>
> GM Bill, good to hear from you. It Works!
>
> Regards
>
> W4ZCB
>
>

It is always wonderful to hear that something of
mine is working.

Bill W0IYH

# 1392. Re: An easy experiment with a coil

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-27 13:52:22 UTC
From: k3bu@aol.comNoUsama
Message-ID: <20041027095222.16253.00001360@mb-m01.aol.com>
Source record: 87487

>
>Sorry, this may sound dumb, I think I must have missed the point. Why are
>people arguing about current in a loading coil? NEC, and experiment, seem
>to provide the answer.
>
>73,
>
>Frank

If you didn't read the stuff on my web page, have a look, the story is there.

http://www.k3bu.us/loadingcoils.htm

73 Yuri, K3BU.us

# 1393. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-27 13:58:00 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <IPNfd.780229$Gx4.622756@bgtnsc04-news.ops.worldnet.att.net>
Source record: 87488

Cecil,

I was going to drop this discussion, but I will respond to your request
to share physics knowledge.

1) I will repeat. E-fields, H-fields, voltages, and currents are all
related through some very profound equations. However, <shout> THEY ARE
NOT INTERCHANGEABLE. </shout>

This is not just a matter of semantics. These entities have different
physical meanings, different units, and different dimensionalities.

2) I offered a physics-based explanation for your proposed "current
drop" in the 440 MHz RG-58 example a few days ago. Did you not read that
message before responding to it?

3) A one foot long section of wire and a one foot long section of coil
exhibit similar phase shifts, according to both the theory and the
reported data. What is not correct is the assertion that the coil
exhibits a phase shift consistent with, for example, 20 feet of wire
used to make the coil. The notion that a coil replaces some sizable
portion of the total phase shift in an antenna has been shown to be
incorrect. Experiments reported by Roy and Tom R. convincingly
demonstrate the phase shift behavior of coils.

73,
Gene
W4SZ

Cecil Moore wrote:

[snip]
>
> Please pick one item of physics with which you disagree with me and let's
> discuss it in a gentlemanly fashion. There's some pretty savvy people on
> this newsgroup who agree with me. Perhaps, the argument is only a semantics
> problem, like the definition of "drop" and "flow". It's really hard to see
> how an E-field can drop but not flow and an H-field can flow but not drop.
>
> Pick one simple topic upon which you think you and I disagree. So far,
> you have posted nothing except ad hominem attacks. That's not a good
> way to impress people and win technical arguments. I think you are a
> better person than that.
>
> Here's a topic if you can't think of one. How can a one foot long section
> of transmission line exhibit a phase shift if a one foot long coil doesn't?

# 1394. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-27 14:02:22 UTC
From: k3bu@aol.comNoUsama
Message-ID: <20041027100222.16253.00001361@mb-m01.aol.com>
Source record: 87489

>
>I find it amazing that the only argument you guys can come up with is
>an ad hominem attack. That's usually the last resort of someone who has
>lost the argument. If I am so technically incorrect, is one iota of
>technical proof too much to ask? It is, of course, if this is a good-
>old-boys EM religion discussion rather than a technical discussion.
>--
>73, Cecil http://www.qsl.net/w5dxp

Cecil,
I admire your patience and civility, I will try to learn that.
In the mean time, it is almost amusing, if not sad, to observe some educated
idiots :-)

Yuri, K3BU.us

# 1395. Re: Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-27 14:10:17 UTC
From: Robert <RB@comcast.net>
Message-ID: <d%Nfd.321757$3l3.251997@attbi_s03>
Source record: 87490

Just another way to put out there allot of BS, and hope to cash in on dumb invertors to put money into it.

"Fractenna" <fractenna@aol.com> wrote in message news:20041024104227.29586.00002668@mb-m02.aol.com...
> >Was that you behind the plate calling a ball thrown 8" inside a
> >"Strike"?
> >
>
> Heheh!
>
> I wish I was there. Man, it was wicked cold last night! Frozen pitchers galore!
>
> 73,
> Chip N1IR

## 1396. Re: Pipe antenna mast

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-27 14:31:54 UTC
From: kelly@dvol.com
Message-ID: <d22b54c3.0410270631.740a7824@posting.google.com>
Source record: 87491

"Jimmie" <Gfender@carolina.rr.com> wrote in message
news:<bJTbd.62836$ci3.3662724@twister.southeast.rr.com>...
> There used to be a web site about building pipe antenna mast. The kind that
> looks like a giant telescoping antenna. I havent been there in years and
> cant find it now. I hope I am just googling for the wrong thing. I first
> learned about tit in an article on same in 73. Any info on this site or
> other similar would be greatly appreciated.

I Googled around a bit myself and finally stumbled into this one on a
South African site. There's not much out there on the subject.

http://home.mweb.co.za/zs/zs6phd/tower1998.htm

w3rv

# 1397. Re: New Butternut question (tunung stub)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-27 14:41:38 UTC
From: Larry Clark <buddycl@swbell.net>
Message-ID: <CsOfd.4800$bP2.1492@newssvr12.news.prodigy.com>
Source record: 87492

Mike Coslo wrote:
> On my HF6V, it calls for a "tuning stub" of a 1/4 wavelength to tune the
> antenna at 20 meters. The stub is made of 75 ohm coax, and is 11'4"
> long, after which the rest of the coax to the shack is 50 ohm.
>
> How exactly does this work? There is an explanation of sorts in the
> manual, but nothing I can sink my teeth into.
>
> One of the first things I trip over is that an 11'4" piece of 75 ohm
> coax is not a quarter wave in the 20 meter band - more like 17+ MHz.
>
> The book notes that the 20 meter portion is more like 100 ohms, and
> the stub allows your rig to see 50.
>
> If the antenna works, that's cool, but I'd sure like to know a
> little more detail.
>
> - Mike KB3EIA -
>

are you accounting for velocity factor?

larry
kd5foy

# 1398. Re: An easy experiment with a coil

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-27 14:46:08 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <417fb2cb_4@127.0.0.1>
Source record: 87493

Knarf wrote:
> Sorry, this may sound dumb, I think I must have missed the point.

Doesn't sound dumb - you just missed the original argument. It occurred over on eHam.net, was titled "In Search of 'The Perfect Mobile Antenna'" and overflowed to this newsgroup. W8JI said there is essentially no current change from end to end in a mobile loading coil and used the lumped ideal dimensionless inductor from EZNEC to "prove" his statement. K3BU took issue and the argument still rages.

The article on eHam.net is at:

http://www.eham.net/articles/5998

W8JI's take on the subject is on his web page at:

http://www.w8ji.com/mobile_and_loaded_antenna.htm

K3BU's take on the subject is on his web page at:

http://www.k3bu.us/loadingcoils.htm

My take on the subject is on my web page at:

http://www.qsl.net/w5dxp/current.htm

> Why are
> people arguing about current in a loading coil? NEC, and experiment, seem
> to provide the answer.

Lumped point inductances used by some models are dimensionless and therefore have no current drop. Of course, lumped point inductances don't exist in reality. The Helix feature of EZNEC+ illustrates the change in current through the coil. Based on the quote from Balanis below, the total current through the coil is If+Ib where 'If' is the forward current and 'Ib' is the backward (reflected) current. That is, of course, phasor addition. The net total current, If+Ib, for a 1/2WL dipole is close to a cosine function with the center feedpoint at zero degrees. So Itot = If+Ib = ~Ifeed*cos(degrees), where (degrees) is the number of degrees away from the feedpoint of the dipole. Halfway out one leg of a dipole the current is approximately Ifeed*cos(45) = 0.707*Ifeed (Ifeed is feedpoint current)

The current at the tip of a dipole is Ifeed*cos(zero) = 0 Itot = If+Ib = 0 at the tip of the dipole because the two currents, If and Ib, are equal in magnitude and opposite in phase. (Note: the convention is that the current reflected at

an open-circuit changes phase by 180 degrees. Even though
the current is a phasor, only the Real part exists in reality.
Current in a wire has a magnitude and direction. There are
only two possible directions.)

The total current on the dipole is a standing wave with the
total current decreasing to zero at the tip of the dipole.
If and Ib are flowing in opposite directions and therefore
their phases are rotating in opposite directions. It is that
phase rotation difference that causes If+Ib to be different
at each end of a typical loaded mobile antenna. It's a pretty
simple concept and is explained on my web page above.

Incidentally, the feedpoint impedance of a 50 ohm dipole depends
upon the magnitude of the reflected voltage and reflected current
on the antenna. If a 1/2WL dipole were turned into a traveling-
wave antenna by terminating both ends, the feedpoint impedance
would be hundreds of ohms.
--
73, Cecil http://www.qsl.net/w5dxp
"The current and voltage distributions on open-ended wire antennas are
similar to the standing wave patterns on open-ended transmission lines ...
Standing wave antennas, such as the dipole, can be analyzed as traveling
wave antennas with waves propagating in opposite directions (forward and
backward) and represented by traveling wave currents If and Ib ..."
_Antenna_Theory_, Balanis, Second Edition, Chapter 10, page 488 & 489

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http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

## 1399. Re: An easy experiment with a coil

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-27 15:06:31 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <XPOfd.35265$QJ3.20098@newssvr21.news.prodigy.com>
Source record: 87494

Knarf wrote:
> "Cecil Moore" <w5dxp@hotmail.com> wrote in message
> news:417ec372_4@127.0.0.1...
>
>>Richard Clark wrote:
>>
>>>Rarely do we get any practical correlation from this "sky is falling"
>>>oops "current is dropping" argument.
>>
>>Asserting that the argument is about any practical correlation is
>>a diversion of the issue. THE ARGUMENT IS ABOUT THE CURRENT IN A
>>LOADING COIL, not about the radiation pattern. The radiation pattern
>>is completely irrelevant to the argument. One side says the current
>>is absolutely constant except for radiation. The other side says it
>>is not constant (except for special cases). An electrical 1/4WL loaded
>>mobile antenna is not one of the special cases.
>
>
> Sorry, this may sound dumb, I think I must have missed the point. Why are
> people arguing about current in a loading coil? NEC, and experiment, seem
> to provide the answer.
>
> 73,
>
> Frank
>
>

Hi Frank,
you're right, there shouldn't be any argument. There is more
than one way to make a loading coil. If you will visit Tom Rauch's web
page, you will see that he believes he has a method for making a
superior loading coil for small, mobile antennas. Some of the characters
on this newsgroup have misrepresented what he wrote to assert that he
believes that all loading coils behave as an ideal inductance where
the current at both ends of the inductor are the same. Read what Tom
actually wrote and then go back and look at what these people said he
wrote and you'll see the two aren't the same.
73,
Tom Donaly, KA6RUH

# 1400. Re: An easy experiment with a coil

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-27 15:17:24 UTC
From: Knarf <ve6cb@NOSPAM.telus.net>
Message-ID: <8_Ofd.9126$E93.8036@clgrps12>
Source record: 87495

>>Sorry, this may sound dumb, I think I must have missed the point. Why are
>>people arguing about current in a loading coil? NEC, and experiment, seem
>>to provide the answer.
>>
>>73,
>>
>>Frank
>
>
> If you didn't read the stuff on my web page, have a look, the story is
> there.
>
> http://www.k3bu.us/loadingcoils.htm
>
> 73 Yuri, K3BU.us

Thanks for the link Yuri. Read the web page, and now understand what is going on. I have an Excel spreadsheet, complete with graph, prepared from a NEC2 model of an inductively loaded monopole. The graph clearly shows the current distribution across the coil. If you are interested I can e-mail it to you, or can post it on the NG. It is only about 50kB, but not sure if it is acceptable to post attachments on a NG.

73,

Frank

# 1401. Re: An easy experiment with a coil

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-27 15:21:17 UTC
From: Knarf <ve6cb@NOSPAM.telus.net>
Message-ID: <N1Pfd.9140$E93.682@clgrps12>
Source record: 87496

>> Sorry, this may sound dumb, I think I must have missed the point. Why
>> are people arguing about current in a loading coil? NEC, and experiment,
>> seem to provide the answer.
>>
>> 73,
>>
>> Frank
>
> Hi Frank,
> you're right, there shouldn't be any argument. There is more
> than one way to make a loading coil. If you will visit Tom Rauch's web
> page, you will see that he believes he has a method for making a superior
> loading coil for small, mobile antennas. Some of the characters
> on this newsgroup have misrepresented what he wrote to assert that he
> believes that all loading coils behave as an ideal inductance where
> the current at both ends of the inductor are the same. Read what Tom
> actually wrote and then go back and look at what these people said he
> wrote and you'll see the two aren't the same.
> 73,
> Tom Donaly, KA6RUH

Thanks Tom, will read the links so will better understand what the arguments are about.

73,

Frank

# 1402. Re: New Butternut question (tunung stub)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-27 15:29:09 UTC
From: Mike Coslo <mjc5remove@psu.edu>
Message-ID: <417FBEC5.9010402@psu.edu>
Source record: 87497

Larry Clark wrote:
> Mike Coslo wrote:
>
>> On my HF6V, it calls for a "tuning stub" of a 1/4 wavelength to tune
>> the antenna at 20 meters. The stub is made of 75 ohm coax, and is
>> 11'4" long, after which the rest of the coax to the shack is 50 ohm.
>>
>> How exactly does this work? There is an explanation of sorts in
>> the manual, but nothing I can sink my teeth into.
>>
>> One of the first things I trip over is that an 11'4" piece of 75
>> ohm coax is not a quarter wave in the 20 meter band - more like 17+ MHz.
>>
>> The book notes that the 20 meter portion is more like 100 ohms,
>> and the stub allows your rig to see 50.
>>
>> If the antenna works, that's cool, but I'd sure like to know a
>> little more detail.
>>
>> - Mike KB3EIA -
>>
>
> are you accounting for velocity factor?

They do have different lengths for different dielectrics. solid
dielectric is the 11 foot +, and foam dielectric uses a 13 foot + length.

It's likely that velocity factor is involved in that part.

<<beginner alert!>>

Lessee if I have this correct here. Pardon if I seem a little slow, as
I'm new at this.

Since I calculated 16' 6" inch for the middle of the 20 meter band.

And they are using 11' 4" of solid dielectric coax for a stub.

11'4" is around 70 percent of the length of 16'6".

So the solid dielectric velocity factor is around .70 correct?

This would make the foam dielectric around .80 if I'm not all wet.

looking at velocity factors for various cable types, I'm seeing from .66
to .85.

Of course I don't know where they calculated the exact frequency for, and this antenna probably has some other interactions, but it seems to be in the ballpark.

Is this solid, or nonsense?

- Mike KB3EIA -

Now I wonder how that all ties in with changing that 100 Ohm impedance to 50 Ohms?

<<beginner alert off!>>

# 1403. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-27 16:06:00 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <417fc580_4@127.0.0.1>
Source record: 87498

Gene Fuller wrote:
> I was going to drop this discussion, but I will respond to your request
> to share physics knowledge.

Thanks, Gene, Please be patient with me.

> 1) I will repeat. E-fields, H-fields, voltages, and currents are all
> related through some very profound equations. However, <shout> THEY ARE
> NOT INTERCHANGEABLE. </shout>

Is the H-field around a wire proportional to the RF current in the wire?
Is the E-field around a wire proportional to the RF voltage between the
wires? Is the ratio of E-field to H-field fixed by Z0? Do I^2*R losses
affect the E-field and H-field by equal amounts?

> This is not just a matter of semantics. These entities have different
> physical meanings, different units, and different dimensionalities.

Of course that's true. However, they are not unrelated.

> 2) I offered a physics-based explanation for your proposed "current
> drop" in the 440 MHz RG-58 example a few days ago. Did you not read that
> message before responding to it?

Yes, and I have been thinking about an example that would better illustrate
what I was asking. A 1000 wavelength dipole located in outer space would
have less current at the ends than at the source. Since there is no other
path for current, what is the explanation for the decrease in the current
at the ends?

> 3) What is not correct is the assertion that the coil
> exhibits a phase shift consistent with, for example, 20 feet of wire
> used to make the coil.

Because nobody has made that assertion since the original eHam article, it
appears to be a straw man. The coil occupies whatever number of degrees
that it occupies and it does NOT occupy zero degrees.

For instance, using a particular EZNEC segment model of a coil, the
current at the bottom is 1.0 amp and the current at the top is 0.5
amp. Assuming the cosine distribution of standing-wave current is
accurate, the coil occupies about 60 degrees. The whip would occupy
about 30 degrees, the rest of the 1/4WL.

Nobody has attempted to explain how one can obtain 90 degrees of a
1/4WL antenna on 4 MHz using a ten foot (15 degree) whip. That is
one hell of a velocity factor. If the bottom-loading coil really
occupies zero degrees, then the ten foot whip would be forced to

occupy 90 degrees. That is so impossible as to be laughable.

> The notion that a coil replaces some sizable
> portion of the total phase shift in an antenna has been shown to be
> incorrect. Experiments reported by Roy and Tom R. convincingly
> demonstrate the phase shift behavior of coils.

The total current undergoes virtually no phase shift since it is a standing wave. That's in the textbooks and nobody is arguing that point so it's just another straw man.

It's the forward current and reflected current that is undergoing a phase shift through the coil just like they do on a wire standing-wave antenna. Nobody has measured those two current components so the jury is still out on that subject. There is no argument about the phase of the total current that Roy and Tom measured. Please, there are enough arguments already without having to introduce straw men.

If you will look at my phasor diagrams of forward and reflected currents at:

http://www.qsl.net/w5dxp/current.htm

you will see that the phase of the total current is exactly the same in both cases. That's the phase that Roy measured. Since it is a standing wave current, the phase of the standing-wave current is almost constant. It is the magnitude of the standing-wave current that changes and it changes as a cosine function of electrical length in degrees. The coil has an electrical length in degrees. That's what causes the current to be different at the bottom and at the top in a 1/4WL antenna. Assuming the phase shift from the feedpoint current to the tip of the antenna is 90 degrees, if an accurate measurement of the current at the top and bottom of a bottom-loaded antenna coil is made, the number of degrees occupied by the coil can be calculated from

arccos(Itop/Ibottom)

just as it can be calculated between two points on a wire. This assumes that Ibottom is an Imax point on the standing wave.
--
73, Cecil http://www.qsl.net/w5dxp

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# 1404. Re: Gas lines and ground rods

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-27 16:09:35 UTC
From: joe <antenna_man@nospam.com>
Message-ID: <417FC83D.498FCB5A@nospam.com>
Source record: 87499

Our gas lines are yellow plastic type since 1990
in nc.

wntu4@yahoo.com wrote:

> Hi all,
> Am designing my shack, and I think I have a problem.Very near the
> shack entrance is the entrance of my natural gas line to the house,
> plus meter. Now I know I cant attach ground to gas line.... the
> question is, how close can I get my rods? I plan to use 3, one right
> outside the entrance, and the others 10 feet to either side. I dont
> have the option of running away from the house more than 3-4 feet. The
> first rod would be about 3-4 ft away from the gas line, but the ground
> strap will have to go very very near the gas line. Am I looking at an
> explosion in the event of a lightning strike? or will a few inches of
> earth be enough insulation? I should point out that there appears to
> be an aluminum ground rod driven into the ground at the same point the
> gas line exits the earth. Thanks for any advice and information!

# 1405. Re: The "TRICK" to TV 'type' Coax Cable [Shielded] SWL Loop Antennas {RHF}

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-27 16:18:10 UTC
From: rhf-newsgroups@pacbell.net
Message-ID: <ff3145e8.0410270818.45d8b5ca@posting.google.com>
Source record: 87500
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

```
= = = Telamon <telamon_spamshield@pacbell.net.is.invalid> wrote in message
= = = news:<telamon_spamshield-2C9E63.22043325102004@newssvr13-ext.news.prodigy.com>...
> In article <25eb70d7.0410252055.64d23556@posting.google.com>,
> nm5k@wt.net (Mark Keith) wrote:
>
> > rhf-newsgroups@pacbell.net (RHF) wrote in message
> > news:<ff3145e8.0410250112.24a2abe3@posting.google.com>...
> > > YODAR,
> > >
> > > The "TRICK" to TV 'type' Coax Cable [Shielded] SWL Loop Antennas {RHF}
> > > http://groups.yahoo.com/group/Shortwave-SWL-Antenna/message/1626
> > >
> > > I too tried to build a Coax Cable [Shielded] Loop Antenna
> > > that was made of "TV type Coax" that had a 'Shield' made
> > > of Foil and about 33% Braid. The Results were very poor.
> >
> > Hummm... It *should* have worked just fine. Besides being lousy to
> > solder to, there is nothing wrong with a foil shield. Thats solid
> > coverage, and better than strands of wire. The coax shield for a SW or
> > MW loop should be fairly non critical. The only purpose is to ensure
> > balance. MK
>
> "The Results were very poor" is not very much information to go on to
> any conclusion or solution.
>
> Maybe he was expecting more output from the loop than he got. A shielded
> loop that is not very large is not going to have a big output. Maybe he
> screwed up and did not have a shield gap.

MK & TELAMON,

My reason for stating that the performance was 'poor' had to do with
may small problems:

* Learning Curve - It was my first Coax Cable [Shielded] Loop
Antenna.

* Questionable 'quality' of the old RG-59 Coax Cable being used.
[ Learned to use 'new' better quality Coax Cable. ]

* Trouble getting a good 'connection' at the Bottom-Joint between
the Aluminum Braid.
[ Learned to use more exposed Braid to make 3-4 complete Wraps
```

around the other section of Exposed Braid at the Bottom-Joint. ]

IDEA: Got the Idea for the LOOP-HUB using a 'modified' TV
type Two-Way Splitter.

* The "F" Connector' End had a Center Wire that was 'short' and
resulted in an intermittent connection when moved.
[ Learned to make sure that the Center Wire was Long Enough
and that I did NOT Bend them and Short-them-Out when installing
them. ]

The basic design of the "GreerTech" Coax Cable [Shielded] Loop
Antenna is good and very practical.
LOOP=> http://www.greertech.com/hfloop/mymagloop.html

My 'second' Coax Cable [Shielded] Loop Antenna was made from
Thirteen Feet (13 Ft) of standard size RG-8 Coax Cable.

* Big and difficult to work with.

* Easy to get a good 'connection' at the Bottom-Joint.

The most recent Coax Cable [Shielded] Loop Antenna was made from
a standard 'pre-made' Twelve Feet (12 Ft) of RG-6 'Quad Shield'
Coax Cable.

* RG-6 is 'easy' to work with.

* Pre-Made Lengths with "F" Connectors already attached.

* Just 'cut' the One Inch "Gap" at the Center of the Length.

* Easy to get a good 'connection' at the Bottom-Joint using the
LOOP-HUB made from a TV type Two Way Splitter.

RESULTS: Very Good Performance. (Equal to the 13 Ft RG-8 Loop.)

NOTE: Lessons Learned.

iane ~ RHF
.
Some Say: On A Clear Day You Can See Forever.
http://groups.yahoo.com/group/Shortwave-SWL-Antenna/message/502
I BELIEVE: On A Clear Night . . .
You Can Hear Forever and Beyond - The Beyond !
.
.

# 1406. Any opinion about the Terk AF1 antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-27 16:33:35 UTC
From: brewhaha@ecn.ab.ca
Message-ID: <cloiku$hma$1@utornnr1pp.grouptelecom.net>
Source record: 87501

>From: linuxlover992000@yahoo.com (Linux Lover)
>Is it really that magical (for FM at least) as described here?
(...)
Despite the difficulties, radios can be balanced to favour any
signal on the antenna over whatever might leak through the power supply or
up the speaker wires. My sister has a table-top radio that will pick up
the strongest FM stations in her city from a twist-tie stuck into the 75
Ohm cable feed, and neither the positions of the speakers nor the
orientation of the power cord had an effect.

My point is that Lynn is pointing to an amplified antenna, and I
don't doubt that with any FM receiver but the most carefully balanced ones
that an amplifier on the antenna itself will make the signal stronger than
whatever gets into the power supply and whatever else gets up the speaker
wires.

(Speaker wires are often intentionally made into antennas for
handheld radios, so the orientation of your headphone wire and how close
it is to your body can affect FM reception).

I doubt that amplified omnidirectional is as good for weak
stations as a good directional antenna, the simple reason being that most
of the signal to amplify will be noise. It would be better to invest in a
multi-meter to see if your antenna actually has the right impedance.

So, your mileage may vary, and this amplified omnidirectional
antenna will work better with cheap equipment.

# 1407. Re: An easy experiment with a coil

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-27 16:36:40 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <417fccb5_4@127.0.0.1>
Source record: 87502

Tom Donaly wrote:
> you're right, there shouldn't be any argument. There is more
> than one way to make a loading coil. If you will visit Tom Rauch's web
> page, you will see that he believes he has a method for making a
> superior loading coil for small, mobile antennas. Some of the characters
> on this newsgroup have misrepresented what he wrote to assert that he
> believes that all loading coils behave as an ideal inductance where
> the current at both ends of the inductor are the same. Read what Tom
> actually wrote and then go back and look at what these people said he
> wrote and you'll see the two aren't the same.

From: http://www.eham.net/articles/5998
RE: In Search of 'The Perfect Mobile Antenna':
Reply by W8JI on August 10, 2003

"If you look at HOW an inductor works, the current flowing in one terminal
ALWAYS equals the current flowing out the other terminal. THE VOLTAGE can be
(and is) different on each end of the inductor, NOT the current."

Would you please share with us what that posting really means?
--
73, Cecil http://www.qsl.net/w5dxp

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# 1408. Re: An easy experiment with a coil

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-27 16:47:13 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <417fcf2d_4@127.0.0.1>
Source record: 87503

Knarf wrote:
> Thanks for the link Yuri. Read the web page, and now understand what is
> going on. I have an Excel spreadsheet, complete with graph, prepared from a
> NEC2 model of an inductively loaded monopole. The graph clearly shows the
> current distribution across the coil. If you are interested I can e-mail it
> to you, or can post it on the NG. It is only about 50kB, but not sure if it
> is acceptable to post attachments on a NG.

The netnews rules prohibit posting binary files. If you don't have
a web page, you could post it to alt.binary and point to it from
here.

Modeling a helical loading coil in EZNEC and putting loads at the
various segments also clearly illustrates the current taper. All
real-world air-core loading coils are distributed networks. In
a distributed network with reflections, the standing-wave currents
are tapered within a sinusoidal envelope.

Here's an unanswered question: If the loading coil occupies zero
degrees, how can the remaining eight feet of the antenna occupy
the entire 90 electrical degrees? Wouldn't the coil have to
change the frequency for that to happen?
--
73, Cecil http://www.qsl.net/w5dxp

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# 1409. what dish to capture a geostat. sat shifted of 75 deg long ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-27 18:03:39 UTC
From: Thierry <->
Message-ID: <417fe300$1@news.vo.lu>
Source record: 87504

Hi,

A question : how weak is a geostationnary satellite signal at the edge ?
(case study)

Imagine a geostationnary TV satellite like AMC-6 located over NY or so (72
deg W) with a signal 50 dB in area 500 km wide, decreasing down to 30 dB a
few hundreds miles offshore and thus very weak in Europe (10 dB ?)
The satellite transmits two signals : its NTSC video (vertically polarized)
near 3.88 GHz and an audio at 6.8 MHz FM mode (monaural), standard specs
used e.g. by NASA TV.

Is there a way to capture its signals from Europe (say ON) using a 2 to 4m
wide type TVRO or Quorum dish (with preamp, NTSC/PAL converter, etc) knowing
that its beam is quite narrow and the signal very weak ?
In addition a beam cut on 6.8 MHz 'd be used to capture its FM signal on HF,
the satellite being not to high above the horizon ... (supposition)
NB. In this example the longitude difference is 50-75 degrees !!

Theoretically, is it possible to built such a system being so far from the
satellite and the satellite being so low over the horizon ?
or the beamwidth of the satellite dish does not permit receiving at such
longitude differences ?

Or say in other words, has an european ham already tried to capture US
geostat satellites successfully ? and using what kind of system (RX and
antenna diam.)
or conversely, has an US ham succeeded to capture signal from an european
geostat satellite (Meteosat...) ?

What should be the minimum antenna specs to get a "good" receive (diameter,
preamp gain, without or without downconverter and then rx qrg, longitude
difference max., signal strength at receive on 2m and 4m dish...)

I think that it is possible with a dish >2m, but I 'd like a confirmation.

Thanks in advance

Thierry, ON4SKY
http://www.astrosurf.com/lombry

# 1410. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-27 18:20:15 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <zFRfd.34286$OD2.15188@bgtnsc05-news.ops.worldnet.att.net>
Source record: 87505

Cecil,

1) Only the total current matters. I have never found a detailed treatment of antennas that was based on anything other than the total current (or total current density) at each point on the antenna. Have you?

Current components may be useful for discovering the total current or for handwaving explanations, but they have no further role in antenna analysis.

2) Where did this 90 degree phase shift requirement come from? There is virtually no phase shift in the current of a half-wave dipole (or quarter-wave monopole) from feedpoint to tip. I am looking at figure 9.6 on page 370 in Kraus "Antennas" (2nd Ed.), and it shows perhaps a few degrees phase variation over the entire length of the dipole antenna. This figure is located in the chapter on the Moment Method for calculating cylindrical antennas, in case you do not have the second edition.

I suspect you may be confusing the argument (AKA, the phase) of the cosine function presumed to describe the behavior of the current amplitude. However, current amplitude and current phase are not at all the same thing.

Have you been seduced by your math models?

73,
Gene
W4SZ

Cecil Moore wrote:

[snip]

>
> Because nobody has made that assertion since the original eHam article, it
> appears to be a straw man. The coil occupies whatever number of degrees
> that it occupies and it does NOT occupy zero degrees.
>
> For instance, using a particular EZNEC segment model of a coil, the
> current at the bottom is 1.0 amp and the current at the top is 0.5
> amp. Assuming the cosine distribution of standing-wave current is
> accurate, the coil occupies about 60 degrees. The whip would occupy
> about 30 degrees, the rest of the 1/4WL.
>
> Nobody has attempted to explain how one can obtain 90 degrees of a
> 1/4WL antenna on 4 MHz using a ten foot (15 degree) whip. That is

> one hell of a velocity factor. If the bottom-loading coil really
> occupies zero degrees, then the ten foot whip would be forced to
> occupy 90 degrees. That is so impossible as to be laughable.
>
>> The notion that a coil replaces some sizable portion of the total
>> phase shift in an antenna has been shown to be incorrect. Experiments
>> reported by Roy and Tom R. convincingly demonstrate the phase shift
>> behavior of coils.
>
>
> The total current undergoes virtually no phase shift since it is a
> standing wave. That's in the textbooks and nobody is arguing that
> point so it's just another straw man.
>
> It's the forward current and reflected current that is undergoing a
> phase shift through the coil just like they do on a wire standing-
> wave antenna. Nobody has measured those two current components so
> the jury is still out on that subject. There is no argument about
> the phase of the total current that Roy and Tom measured. Please,
> there are enough arguments already without having to introduce
> straw men.
>
> If you will look at my phasor diagrams of forward and reflected
> currents at:
>
> http://www.qsl.net/w5dxp/current.htm
>
> you will see that the phase of the total current is exactly the same
> in both cases. That's the phase that Roy measured. Since it is a
> standing wave current, the phase of the standing-wave current is almost
> constant. It is the magnitude of the standing-wave current that
> changes and it changes as a cosine function of electrical length
> in degrees. The coil has an electrical length in degrees. That's
> what causes the current to be different at the bottom and at the
> top in a 1/4WL antenna. Assuming the phase shift from the feedpoint
> current to the tip of the antenna is 90 degrees, if an accurate
> measurement of the current at the top and bottom of a bottom-loaded
> antenna coil is made, the number of degrees occupied by the coil can
> be calculated from
>
> arccos(Itop/Ibottom)
>
> just as it can be calculated between two points on a wire. This
> assumes that Ibottom is an Imax point on the standing wave.

# 1411. Re: what dish to capture a geostat. sat shifted of 75 deg long ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-27 18:47:45 UTC
From: Dale Parfitt <par@parelectronics.com>
Message-ID: <l3Sfd.5421$dW.482@trnddc08>
Source record: 87506

"Thierry" <-> wrote in message news:417fe300$1@news.vo.lu...
> Hi,
>
> A question : how weak is a geostationnary satellite signal at the edge ?
> (case study)
>
> Imagine a geostationnary TV satellite like AMC-6 located over NY or so (72
> deg W) with a signal 50 dB in area 500 km wide, decreasing down to 30 dB a
> few hundreds miles offshore and thus very weak in Europe (10 dB ?)
> The satellite transmits two signals : its NTSC video (vertically
polarized)
> near 3.88 GHz and an audio at 6.8 MHz FM mode (monaural), standard specs
> used e.g. by NASA TV.
>
> Is there a way to capture its signals from Europe (say ON) using a 2 to 4m
> wide type TVRO or Quorum dish (with preamp, NTSC/PAL converter, etc)
knowing
> that its beam is quite narrow and the signal very weak ?
> In addition a beam cut on 6.8 MHz 'd be used to capture its FM signal on
HF,
> the satellite being not to high above the horizon ... (supposition)
> NB. In this example the longitude difference is 50-75 degrees !!
>
> Theoretically, is it possible to built such a system being so far from the
> satellite and the satellite being so low over the horizon ?
> or the beamwidth of the satellite dish does not permit receiving at such
> longitude differences ?
>
> Or say in other words, has an european ham already tried to capture US
> geostat satellites successfully ? and using what kind of system (RX and
> antenna diam.)
> or conversely, has an US ham succeeded to capture signal from an european
> geostat satellite (Meteosat...) ?
>
> What should be the minimum antenna specs to get a "good" receive
(diameter,
> preamp gain, without or without downconverter and then rx qrg, longitude
> difference max., signal strength at receive on 2m and 4m dish...)
>
> I think that it is possible with a dish >2m, but I 'd like a confirmation.
>
> Thanks in advance
>
> Thierry, ON4SKY

> http://www.astrosurf.com/lombry
>
> Do the math- what is the minimum dish size required to receive the signal in the 50dB contour? If your contour is 10dB- you are 40 dB down. Dish gain goes up 6dB each time you double the diameter- so you need a dsih 128X the diameter of the 50dB contour dish. to yield the same pix quality.

Dale W4OP

# 1412. Re: Gain per unit length of boom

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-27 19:14:04 UTC
From: richardharrison@webtv.net
Message-ID: <10681-417FF37C-90@storefull-3251.bay.webtv.net>
Source record: 87508

I wrote:
"Critical coupling is defined as maximum energy transfer at the resonant frequency."

Also:
"Coupling additions (more loads) to a feedpoint lowers the impedance unless additional measures (transformations) are taken."

I`ve since consulted Terman, and critical coupling is defined as I said above. Terman adds coupled elements differently than I did above.

On page 64 of his 1955 edition, Terman defines critical coupling as:
"These trends continue as the coefficient of coupling is increased until the coupling is such that the resistance which the secondary circuit couples into the primary at resonance is equal to the primary resistance. This is called the CRITICAL COUPLING and causes the secondary current to have the maximum value it can attain."

On page 65, Terman`s statement supports Art:
"When the coupled impedance is added to the self-impedance of the primary circuit, the effect at resonance is to increase the effective primary resistance above the value that would exist in the absence of the secondary. This causes the primary current at resonance to be reduced in all cases by the presence of the secondary."

I wrongly assumed a coupled load would add to the primary current. I apologize to Art and to others who I misled.

Best regards, Richard Harrison, KB5WZI

# 1413. Re: An easy experiment with a coil

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-27 19:18:27 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10nvt43d8p6rv54@corp.supernews.com>
Source record: 87507

Cecil,

In a simple monopole with one inductor, let L1 be the distance from the base of an antenna to the bottom of the loading coil in meters, L2 the length of the loading coil, L3 the distance from the top of the loading coil to the top of the antenna. I is the base current, L the inductance value and F the frequency. You can assume the antenna is very thin.

Since your theory is so elegant and well developed, and you've had such an excellent education at Texas A&M, it shouldn't be difficult at all for you to write a couple of simple equations which give the currents at the two ends of the coil. In the time-honored methods of science, your equations can then be tested against modeled and measured results to prove the validity of your theory.

Roy Lewallen, W7EL

# 1414. Re: what dish to capture a geostat. sat shifted of 75 deg long ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-27 19:34:28 UTC
From: Thierry <->
Message-ID: <417ff849$1@news.vo.lu>
Source record: 87509

"Dale Parfitt" <par@parelectronics.com> wrote in message
news:l3Sfd.5421$dW.482@trnddc08...
>
> "Thierry" <-> wrote in message news:417fe300$1@news.vo.lu...
> > Hi,
> >
> > A question : how weak is a geostationnary satellite signal at the edge ?
>>..
>
> > Do the math- what is the minimum dish size required to receive the
signal
> in the 50dB contour? If your contour is 10dB- you are 40 dB down. Dish
gain
> goes up 6dB each time you double the diameter- so you need a dsih 128X the
> diameter of the 50dB contour dish. to yield the same pix quality.

Fine ! (a way of speaking) it's a new information for me.
OK that a >100m dish is not really realistic, at least for an amateur :-((

But the problem is also : as I am very much "out" of the main beam (say 50°
off in longitude), can I receive some signal ?
I have thought that the beam was like a cone and outside there was no
receive at all.
But you seem to say that the decreasing of signal strength is more or less
constant with distance, there is not abrupt decreasing say below 0 dB
contour or so ? right ?
Or in other words is there a maximum distance or a longitude difference over
which there is no more signal ? none ?
For short all 'd be a question of receive dish diameter... (and visibility
of the sat.) ?

Thierry, ON4SKY

>
> Dale W4OP
>
>

# 1415. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-27 19:46:50 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <417ff941$1_2@127.0.0.1>
Source record: 87510

Gene Fuller wrote:
> 1) Only the total current matters. I have never found a detailed
> treatment of antennas that was based on anything other than the total
> current (or total current density) at each point on the antenna. Have you?

Check out my tag line, Gene. Balanis says we can use the component currents If and Ib to analyze a standing-wave antenna. Kraus says essentially the same thing when he says: "A sinusoidal current distribution may be regarded as the standing wave produced by two uniform (unattenuated) traveling waves of equal amplitude moving in opposite directions along an antenna." This was in regards to the "Fields of a thin linear antenna with a uniform traveling wave."

Just because there is no "detailed treatment" doesn't mean that it should be forbidden to discuss. We are out on the edge of what has been detailed (so far) so don't be afraid to think outside of the box. The opposite phase shift between If and Ib is the cause of the decrease in coil current in a typical mobile antenna. It happens even if there is zero loss in the coil and zero radiation from the coil. It also happens in a lossless transmission line. There is a decrease in standing wave current on each side of a current maximum point even when the transmission line is lossless. The same thing applies to a lossless coil with dimensions larger than a point.

> Current components may be useful for discovering the total current or
> for handwaving explanations, but they have no further role in antenna
> analysis.

Check my tag line again, Gene. They are absolutely useful for transmission line analysis and are therefore useful for standing-wave antenna analysis.

> 2) Where did this 90 degree phase shift requirement come from? There is
> virtually no phase shift in the current of a half-wave dipole (or
> quarter-wave monopole) from feedpoint to tip.

Yes, you are talking about the standing-wave current which is the superposition of the forward and reflected currents. A 1/4WL wire is 90 degrees of a traveling-wave antenna. The forward current rotates by 90 degrees and the reflected current rotates by 90 degrees.

> I am looking at figure 9.6
> on page 370 in Kraus "Antennas" (2nd Ed.), and it shows perhaps a few
> degrees phase variation over the entire length of the dipole antenna.

Yes, that is true for the superposed forward and reflected currents and is shown to be true by my phasor diagrams on my web page. The forward current is a traveling wave. The reflected current is a traveling wave.

I'm sure you are familiar with the change in phase undergone by traveling
waves in perfectly matched systems. Apply that knowledge to the separate
forward and reflected current traveling waves and you will understand
the magnitude variation in If+Ib caused by their respective phase shifts
in the opposite direction even if their magnitudes remain constant.

> I suspect you may be confusing the argument (AKA, the phase) of the
> cosine function presumed to describe the behavior of the current
> amplitude. However, current amplitude and current phase are not at all
> the same thing.

Nope, I fully agree that the superposed net current has almost zero
phase shift because it is a *standing wave*. Traveling waves, OTOH,
experience phase shifts when traveling along a wire. The forward
current and reflected current on a standing-wave antenna are
*traveling waves*.

This is an onion-type problem, Gene. Please peal back the net current
layer and look at the component currents underneath even if you feel
presently that it will be a waste of time.

Incidentally, I bounced most of this stuff off of Dr. Balanis when
I was working with him on a joint Intel/ASU project. He agreed so
far (1995) and my extensions since 1995 are logical. If you will
take it step-by-step, I think you will agree. If you find any error
at all on my part, you will, no doubt, call my attention to it and
I will learn something.
--
73, Cecil http://www.qsl.net/w5dxp
"The current and voltage distributions on open-ended wire antennas are
similar to the standing wave patterns on open-ended transmission lines ...
Standing wave antennas, such as the dipole, can be analyzed as traveling
wave antennas with waves propagating in opposite directions (forward and
backward) and represented by traveling wave currents If and Ib ..."
_Antenna_Theory_, Balanis, Second Edition, Chapter 10, page 488 & 489

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# 1416. Is there such a thing as "Best Omnidirectional FM antenna"?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-27 19:52:02 UTC
From: linuxlover992000@yahoo.com
Message-ID: <7687bfbd.0410271152.293fefb4@posting.google.com>
Source record: 87511

Is there a product you can recommend as "The Best Omnidirectional FM antenna"?

If so, which one is it? (brand/model and/or URL please)

Oh - one significant constraint is that it cannot be larger than about 3 feet (1 meter) in any dimension, because it is going to be installed in my attic. I know it cuts the signal by 50%, but I am willing to live with that since I am assuming that if a whip antenna on a portable radio works great in my basement, a **good* omnidirectional FM antenna in the attic must work *at least* as good...

An extensive search yielded only the Triax omni FM:
http://www.towerhillaerials.com/viewProd.phtml?ref=52&orderNumber=0
But where can you buy it in the USA?

I also found an ANTENNACRAFT FMSS at STARK Electronics:
http://www.starkelectronic.com/acantena.htm#FMSS, but the specs at that site say Boom length is 8' and Maximum Width say 55'. These can't be feet, right? They surely confused the foot symbol (') with the inch symbol (") - or did they?

Anyway, any tip you can provide on finding such an omnidirectional FM antenna would be highly appreciated. VHF/UHF omnidirectional antennas that do *not* trap the FM band with a notch filter are welcome, too.

Thanks,
Lynn

# 1417. Re: what dish to capture a geostat. sat shifted of 75 deg long ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-27 19:57:53 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <87SdnWgebfkaYOLcRVn-gA@comcast.com>
Source record: 87512

"Thierry" <-> wrote in message news:417ff849$1@news.vo.lu...
>
> "Dale Parfitt" <par@parelectronics.com> wrote in message
> news:l3Sfd.5421$dW.482@trnddc08...
>>
>> "Thierry" <-> wrote in message news:417fe300$1@news.vo.lu...
>> > Hi,
>> >
>> > A question : how weak is a geostationnary satellite signal at the edge
>> > ?
>>>..
> >
>> > Do the math- what is the minimum dish size required to receive the
> signal
>> in the 50dB contour? If your contour is 10dB- you are 40 dB down. Dish
> gain
>> goes up 6dB each time you double the diameter- so you need a dsih 128X
>> the
>> diameter of the 50dB contour dish. to yield the same pix quality.
>
> Fine ! (a way of speaking) it's a new information for me.
> OK that a >100m dish is not really realistic, at least for an amateur :-((
>
> But the problem is also : as I am very much "out" of the main beam (say
> 50°
> off in longitude), can I receive some signal ?
> I have thought that the beam was like a cone and outside there was no
> receive at all.
> But you seem to say that the decreasing of signal strength is more or less
> constant with distance, there is not abrupt decreasing say below 0 dB
> contour or so ? right ?
> Or in other words is there a maximum distance or a longitude difference
> over
> which there is no more signal ? none ?
> For short all 'd be a question of receive dish diameter... (and visibility
> of the sat.) ?
>
> Thierry, ON4SKY
>
>>
>> Dale W4OP
>>
They may also reuse the frequency.

Tam

# 1418. Re: An easy experiment with a coil

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-27 20:15:12 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <417fffe4$1_2@127.0.0.1>
Source record: 87513

Roy Lewallen wrote:

> Cecil,
>
> In a simple monopole with one inductor, let L1 be the distance from the
> base of an antenna to the bottom of the loading coil in meters, L2 the
> length of the loading coil, L3 the distance from the top of the loading
> coil to the top of the antenna. I is the base current, L the inductance
> value and F the frequency. You can assume the antenna is very thin.
>
> Since your theory is so elegant and well developed, and you've had such
> an excellent education at Texas A&M, it shouldn't be difficult at all
> for you to write a couple of simple equations which give the currents at
> the two ends of the coil. In the time-honored methods of science, your
> equations can then be tested against modeled and measured results to
> prove the validity of your theory.

Sorry, Roy, my theory is not elegant and/or well developed. Equations may be possible in the future, but not right now. At the present time, the theory is qualitative, not quantitative. We are out on the edge of what has been published so far and are in the process of discovery. It is hard for me to believe that this material hasn't been covered some time, somewhere, in a Master's thesis or a PhD dissertation or somewhere in the IEEE proceedings. I regret that I don't have access to such.

The coil has an 'L' and a 'C' and thus can be regarded as a short piece of transmission line. For a mental picture, consider two pieces of helix material, side by side, being used as a balanced transmission line. They would certainly possess a high velocity factor as does a bugcatcher coil. Here is the equivalent of 1/2 of a typical loaded dipole using horizontal #16 wire at a height of 24 feet where Z0=138*sqrt(4h/d).

Feedpoint---Z0=600 ohms---x---coil---y---Z0=600 ohms---

The Z0 of the coil is presently unknown but I am working on getting a ballpark value for it. In any case since Z0=sqrt(L/C), the Z0 of the loading coil will be very high. That means, in addition to the reflections at the tip of the antenna, there will also be reflections at 'x' and 'y', both ways. That situation is pretty complicated but the result is apparently to put the forward voltage out of phase with the forward current at the feedpoint. It also apparently puts the reflected voltage out of phase with the reflected current at the feedpoint. The only requirement is that Vf+Vr be in phase with If+Ir at the feedpoint. I hope you can appreciate the complexity of that situation, stop asking for a "simple equation", and assist us in the apparently complicated solution.

When someone doesn't understand the topic, one asks for a "simple
equation" and when none is forthcoming, one rationalizes that the
new information is not worth knowing. How about working with me
instead of against me on this complicated problem for which neither
one of us has the complete answer (yet)?

P.S. If you had demanded a "simple equation" from Maxwell, you would
have been disappointed also. :-)
--
73, Cecil http://www.qsl.net/w5dxp

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# 1419. Re: An easy experiment with a coil

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-27 20:21:43 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41800169$1_1@127.0.0.1>
Source record: 87514

Cecil Moore wrote:
> For a mental picture, consider two pieces of helix
> material, side by side, being used as a balanced transmission line. They
> would certainly possess a high velocity factor as does a bugcatcher coil.
^^^^
Sorry, this should have been a *LOW* velocity factor.
--
73, Cecil http://www.qsl.net/w5dxp

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# 1420. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-27 21:03:42 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <O2Ufd.788396$Gx4.758676@bgtnsc04-news.ops.worldnet.att.net>
Source record: 87515

Cecil,

Thanks. You just validated my point. Kraus absolutely does not use component currents for any serious analysis; he uses only total current. Likewise, it appears that Balanis is merely waving his hands as well. The quote you provided comes from Chapter 10, on traveling wave antennas, not from a chapter on simple dipole antennas. Does he actually load these components into equations and carry out the analysis in detail?

Subcomponents of the current may be useful for handwaving explanations, but they are not superior to the standard net current model. Any modeling results must agree with the standard model (widely used for more than 100 years) or else the simple handwaving model is likely to be bogus.

Soooo, we are back to the beginning. There is minimal current phase shift in a dipole or monopole antenna, certainly nothing like the the 30 to 60 degree "replacement" phase shift you have been claiming. There is no mysterious "current drop". Any reduction in measured (or modeled) current can (and must) be accounted by shunt currents.

What's left?

Bye,
Gene
W4SZ

Cecil Moore wrote:

>
> Check out my tag line, Gene. Balanis says we can use the component
> currents If and Ib to analyze a standing-wave antenna. Kraus says
> essentially the same thing when he says: "A sinusoidal current
> distribution may be regarded as the standing wave produced by two
> uniform (unattenuated) traveling waves of equal amplitude moving in
> opposite directions along an antenna." This was in regards to the
> "Fields of a thin linear antenna with a uniform traveling wave."

# 1421. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-27 21:49:12 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <418015ef$1_5@127.0.0.1>
Source record: 87517

Gene Fuller wrote:
> Thanks. You just validated my point. Kraus absolutely does not use
> component currents for any serious analysis; he uses only total current.

Let me get this straight. Just because Kraus didn't use component currents for any serious analysis prohibits future thinkers from doing so? Do you really believe that anything Kraus didn't choose to include in his book should not be considered by human beings like you and me? (I don't recall him saying anything about sex.) :-)

If you consider Kraus' book to be an Antenna Bible, then you are guilty of bringing metaphysics into physics.

> Likewise, it appears that Balanis is merely waving his hands as well.
> The quote you provided comes from Chapter 10, on traveling wave
> antennas, not from a chapter on simple dipole antennas.

"Handwaving - anything that disagrees with your present EM religion"

Does that prohibit you from considering the component currents? If so, what are you afraid that you will discover? You are perfectly free to put on the blinders, but to what purpose?

> Subcomponents of the current may be useful for handwaving explanations,
> but they are not superior to the standard net current model.

Is the "standard net current model" so perfect that it will never be modified? Please think outside of the box on this one, Gene. You are essentially saying that all the human knowledge that has been accumulated on this subject is all that will ever be discovered. That reminds me of the patent clerk who, around 1900, declared that the patent office should be closed because all possible discoveries had already been made.

> Any
> modeling results must agree with the standard model (widely used for
> more than 100 years) or else the simple handwaving model is likely to be
> bogus.

Can you prove that the "standard model" is perfect? If not, is there a chance that it is not perfect? Are you opposed to discovering imperfections in the "standard model"? Do you have the cahones to defend the standard model in a rational technical discussion?

> Soooo, we are back to the beginning.

No, we are back to your EM metaphysics. I am begging you, Gene, please, please, allow yourself to think outside of the box. What do you have

to lose except your religious-like beliefs? If your beliefs are correct,
it should be relatively easy to prove me wrong. If your beliefs are
incorrect, don't you want to change them? What, exactly, are you afraid of?

The mere fact that you resort to an argumentum ad verecundiam (diversionary
appeal to authority) argument tells me that you are afraid to consider
anything new.

So are you going to sandbag behind an omniscience flag, or are you going
to engage in a rational technical discussion where the outcome is unknown?

I am not trying to be difficult. In a one-on-one discussion, I will
either be proven right or wrong. I'm not afraid of that - are you?
--
73, Cecil http://www.qsl.net/w5dxp

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# 1422. Re: An easy experiment with a coil

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-27 21:49:55 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10o0603p51425dc@corp.supernews.com>
Source record: 87516

Cecil Moore wrote:
>
> Sorry, Roy, my theory is not elegant and/or well developed. Equations may
> be possible in the future, but not right now. At the present time, the
> theory is qualitative, not quantitative. . .

Somehow I expected this.

Roy Lewallen, W7EL

# 1423. Re: An easy experiment with a coil

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-27 21:58:11 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <4180180a_4@127.0.0.1>
Source record: 87518

Roy Lewallen wrote:

> Cecil Moore wrote:
>> Sorry, Roy, my theory is not elegant and/or well developed. Equations may
>> be possible in the future, but not right now. At the present time, the
>> theory is qualitative, not quantitative. . .
>
> Somehow I expected this.

The technical information published on this particular subject is
non-existent. Therefore, there is nothing published that contradicts
what I am saying. Why do you think that gives you an advantage?
--
73, Cecil http://www.qsl.net/w5dxp

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# 1424. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-27 22:15:06 UTC
From: k3bu@aol.comNoUsama
Message-ID: <20041027181506.11054.00002630@mb-m14.aol.com>
Source record: 87519

>
>What's left?
>
>Bye,
>Gene
>W4SZ

Take the RF ammeters, stick them at ends of coil and SEE wasaaaap!

Bye, bye!
Yuri, K3BU.us

# 1425. Re: Is there such a thing as "Best Omnidirectional FM antenna"?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-27 22:18:29 UTC
From: w9gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <U8Vfd.431316$mD.315208@attbi_s02>
Source record: 87520

"Linux Lover" <linuxlover992000@yahoo.com> wrote in message
news:7687bfbd.0410271152.293fefb4@posting.google.com...
> Is there a product you can recommend as "The Best Omnidirectional FM
> antenna"?
>
> If so, which one is it? (brand/model and/or URL please)
>
> Oh - one significant constraint is that it cannot be larger than about
> 3 feet (1 meter) in any dimension, because it is going to be installed
> in my attic. I know it cuts the signal by 50%, but I am willing to
> live with that since I am assuming that if a whip antenna on a
> portable radio works great in my basement, a **good* omnidirectional
> FM antenna in the attic must work *at least* as good...
>
> An extensive search yielded only the Triax omni FM:
> http://www.towerhillaerials.com/viewProd.phtml?ref=52&orderNumber=0
> But where can you buy it in the USA?
>
> I also found an ANTENNACRAFT FMSS at STARK Electronics:
> http://www.starkelectronic.com/acantena.htm#FMSS, but the specs at
> that site say Boom length is 8' and Maximum Width say 55'. These can't
> be feet, right? They surely confused the foot symbol (') with the inch
> symbol (") - or did they?
>
> Anyway, any tip you can provide on finding such an omnidirectional FM
> antenna would be highly appreciated. VHF/UHF omnidirectional antennas
> that do *not* trap the FM band with a notch filter are welcome, too.
>
> Thanks,
> Lynn

Lynn -

2 of the largest manufacturers of outdoor TV and FM antennas are Antenna
Craft and Winegard -- BOTH located in Burlington, IA ... a small city with
a big reputation for TV reception!
Radio Shack was one of Antenna Craft's biggest customers (what you buy in
their stores)

Antenna Craft
http://antennacraft-tdp.com/

Winegard
http://www.winegard.com/

HERE ARE THE OMNI-DIRECTIONAL FM ANTENNAS

The Antenna Craft FM-SS are a pair of cross folded dipoles
http://antennacraft-tdp.com/pdfs/FMSS.pdf

The Winegard product is PR-6010 (Turnstile)
http://www.winegard.com/offair/pdf/pr-6010.pdf

Greg
w9gb

BTW, who grew up 35 miles SE of Burlington (definite Deep Fringe TV & FM territory)

# 1426. Re: Is there such a thing as "Best Omnidirectional FM antenna"?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-27 22:22:09 UTC
From: w9gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <lcVfd.431330$mD.32802@attbi_s02>
Source record: 87421

"Linux Lover" <linuxlover992000@yahoo.com> wrote in message
news:7687bfbd.0410271152.293fefb4@posting.google.com...
> Is there a product you can recommend as "The Best Omnidirectional FM
> antenna"?
>
> If so, which one is it? (brand/model and/or URL please)
>
> Oh - one significant constraint is that it cannot be larger than about
> 3 feet (1 meter) in any dimension, because it is going to be installed
> in my attic. I know it cuts the signal by 50%, but I am willing to
> live with that since I am assuming that if a whip antenna on a
> portable radio works great in my basement, a **good* omnidirectional
> FM antenna in the attic must work *at least* as good...
>
[snip]

> Anyway, any tip you can provide on finding such an omnidirectional FM
> antenna would be highly appreciated. VHF/UHF omnidirectional antennas
> that do *not* trap the FM band with a notch filter are welcome, too.
>
> Thanks,
> Lynn

Lynn -

2 of the largest manufacturers of outdoor TV and FM antennas are
AntennaCraft and Winegard -- BOTH located in Burlington, IA ... a small
city with a big reputation for TV reception!
Radio Shack was one of Antenna Craft's biggest customers (what you buy in
their stores)

Antenna Craft
http://antennacraft-tdp.com/

Winegard
http://www.winegard.com/

While there are a number of Directional FM antennas, here are the
Omni-Directional FM Antennas - that you asked for:

The Antenna Craft Model FM-SS (crossed folded dipoles)
http://antennacraft-tdp.com/pdfs/FMSS.pdf

The Winegard Model PR-6010 (Turnstile)
http://www.winegard.com/offair/pdf/pr-6010.pdf

Greg
w9gb

BTW, who grew up 35 miles SE of Burlington (definite Deep Fringe TV & FM territory)

# 1427. Re: Small VHF/UHF TV Broadcast Ant. (Channelmaster vs. Winegard)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-27 22:24:17 UTC
From: w9gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <aeVfd.536366$8_6.17049@attbi_s04>
Source record: 87422
Cross-posted to: rec.radio.amateur.antenna,alt.tv.tech.hdtv

"L Cooke" <lcooke@cisco.com> wrote in message
news:EBAfd.23745$1f.15226@tornado.tampabay.rr.com...
>I am trying to select a very small VHF/UHF outdoor antenna for a new home
>in Orlando. Was looking at the Channelmaster 3010 (Stealth) and Winegard
>GS-2200 batwing. Both rather unconventional, and surely won't perform like
>a larger UHF yagi.
>
> Anyone had experience with these, or any other very small outdoor TV
> antennas?
> Any testing you know of that show one is better (or sucks less) than the
> other?
>
> CM3010:
> http://www.channelmaster.com/home.htm
> Winegard GS-2200:
> http://www.winegard.com/offair/pdf/WC-810.pdf
>
> Thanks,
> Larry (KA4MFJ)
>
You can also look at the Antenna Craft products (some models are OEM to
Radio Shack)

Antenna Craft
http://antennacraft-tdp.com/

Greg
w9gb

# 1428. Re: An easy experiment with a coil

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-27 22:45:22 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41802317$1_4@127.0.0.1>
Source record: 87423

Roy Lewallen wrote:
> Cecil Moore wrote:
>> Sorry, Roy, my theory is not elegant and/or well developed. Equations may
>> be possible in the future, but not right now. At the present time, the
>> theory is qualitative, not quantitative. . .
>
>
> Somehow I expected this.

I didn't mean to imply that I don't know the equations - I do. I just
don't know the value of all the constants in the equations.

Given that a horizontal dipole 24 ft. above ground and constructed from
#16 wire will have a natural Z0 of 600 ohms:

The forward current will be an If-max value multiplied by an exponential
relating to frequency multiplied by an exponential relating to the loss
of energy due to conductor resistance and radiation.

The reflected current will be an Ir-max value multiplied by the same
exponential relating to frequency multiplied by the same exponential
relating to the loss of energy due to conductor resistance and radiation.

We know that (Vf+Vr)/(If+Ir) equals 50 ohms for a dipole whose feedpoint
impedance is 50 ohms. With a 1/2WL dipole the current equation is clear.

Here is the equation you asked for, unfortunately in ASCII:

Itot = If-max*e^-yz*e^-2az + Ir-max*e^+yz*e^-2az

same as it is for a transmission line. The I^2*R losses plus the
radiation "losses" are combined into the attenuation factor 'a'.

So I can indeed write you an equation for a wire dipole. The coil
in the mobile antenna causes another level of complication, and
that is the equation with which I am struggling at the moment.
In addition, the vertical nature of a mobile antenna means that
the Z0 is changing with length. That is a minor problem compared
to including the reflections from both ends of a loading coil in
both directions. But I have no doubt that I can solve that problem.
--
73, Cecil http://www.qsl.net/w5dxp

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http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
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# 1429. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-27 22:46:33 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <clp8gg$cpe$1@news.service.uci.edu>
Source record: 87424

Gene Fuller wrote:

> Kraus absolutely does not use
> component currents for any serious analysis; he uses only total current.
> Likewise, it appears that Balanis is merely waving his hands as well.
> The quote you provided comes from Chapter 10, on traveling wave
> antennas, not from a chapter on simple dipole antennas. Does he actually
> load these components into equations and carry out the analysis in detail?
>
> Subcomponents of the current may be useful for handwaving explanations,
> but they are not superior to the standard net current model.

True. Although it's worth noting that the traveling waves, or
subcomponenets as you call them, are actually the source of radiation.
The fields generated by forward and reverse waves of course superpose to
produce the net field. Obviously in practice it's considerably simpler
to just superpose the currents in order to obtain the net field, but the
result should be the same either way.

Any
> modeling results must agree with the standard model (widely used for
> more than 100 years) or else the simple handwaving model is likely to be
> bogus.
>
> Soooo, we are back to the beginning. There is minimal current phase
> shift in a dipole or monopole antenna, certainly nothing like the the 30
> to 60 degree "replacement" phase shift you have been claiming. There is
> no mysterious "current drop". Any reduction in measured (or modeled)
> current can (and must) be accounted by shunt currents.

> What's left?

I have a question. If a loading coil only makes a physically short
antenna look like it's an electrical quarter wavelength reactively, why
does its position along the radiator make such an apparent difference in
performance?

73, Jim AC6XG

## 1430. 15m Vertical Matching help

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-27 23:20:22 UTC
From: "J. Laub" <wd0bka@netscape.net>
Message-ID: <10o0b9opm3n8q2a@news.supernews.com>
Source record: 87425

I've constructed a 1/4-wave 15m vertical from 11' of 3/4" copper tubing (water type). It's being fed with coax.

Much to my frustration, I am unable to get this thing to resonate w/o the use of a transmatch. Any tips, ideas or good plans?

73's

-=Jon

# 1431. Re: The "TRICK" to TV 'type' Coax Cable [Shielded] SWL Loop Antennas {RHF}

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-27 23:24:24 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0410271524.755774cd@posting.google.com>
Source record: 87426
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

rhf-newsgroups@pacbell.net (RHF) wrote in message
>
>
> MK & TELAMON,
>
> My reason for stating that the performance was 'poor' had to do with
> may small problems:
>
> * Learning Curve - It was my first Coax Cable [Shielded] Loop
> Antenna.
>
> * Questionable 'quality' of the old RG-59 Coax Cable being used.
> [ Learned to use 'new' better quality Coax Cable. ]

The coax shouldn't matter much at all...
>
> * Trouble getting a good 'connection' at the Bottom-Joint between
> the Aluminum Braid.
> [ Learned to use more exposed Braid to make 3-4 complete Wraps
> around the other section of Exposed Braid at the Bottom-Joint. ]

That could cause a problem...
>
> IDEA: Got the Idea for the LOOP-HUB using a 'modified' TV
> type Two-Way Splitter.
>
> * The "F" Connector' End had a Center Wire that was 'short' and
> resulted in an intermittent connection when moved.
> [ Learned to make sure that the Center Wire was Long Enough
> and that I did NOT Bend them and Short-them-Out when installing
> them. ]
>
>
> The basic design of the "GreerTech" Coax Cable [Shielded] Loop
> Antenna is good and very practical.
> LOOP=> http://www.greertech.com/hfloop/mymagloop.html

I notice he likes PVC...I do also...About the easiest frame you can
build for a loop...Here is one design I have used...
http://web.wt.net/~nm5k/loop5.jpg

>
>

> My 'second' Coax Cable [Shielded] Loop Antenna was made from
> Thirteen Feet (13 Ft) of standard size RG-8 Coax Cable.

Kinda heavy....:/
>
> * Big and difficult to work with.

Yep...
>
> * Easy to get a good 'connection' at the Bottom-Joint.
>
>
> The most recent Coax Cable [Shielded] Loop Antenna was made from
> a standard 'pre-made' Twelve Feet (12 Ft) of RG-6 'Quad Shield'
> Coax Cable.
>
> * RG-6 is 'easy' to work with.
>
> * Pre-Made Lengths with "F" Connectors already attached.
>
> * Just 'cut' the One Inch "Gap" at the Center of the Length.
>
> * Easy to get a good 'connection' at the Bottom-Joint using the
> LOOP-HUB made from a TV type Two Way Splitter.
>
> RESULTS: Very Good Performance. (Equal to the 13 Ft RG-8 Loop.)
>
> NOTE: Lessons Learned.

I've tried a few coax loops, and I guess they are ok, but in general, I prefer the normal solenoid windings using plain wire... Much lighter, and the performance *if properly balanced* , is the same. I only use variable caps to tune the loop. My present loop that I use the most is a diamond, appx 44 inches per side, and has 5 turns. "The PVC frame is about 6 ft tall, counting the mast below the loop winding, and the cross arm is 5 ft across" I use a multi gang variable for tuning, and it has a switch to change to a small value gang for upper freq range use. Also have some fixed caps to tack on if I want to listen to LF. With all the cap variations, the tuning range is about 250kc to about 2500 kc or so. But it's usually used on MW and 160m. It's indoors on a stand thats next to me on the floor and rotates...MK

# 1432. Re: An easy experiment with a coil

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-28 00:28:50 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10o0fa34cd00e9e@corp.supernews.com>
Source record: 87427

Cecil Moore wrote:
> . . .
> Here is the equation you asked for, unfortunately in ASCII:
>
> Itot = If-max*e^-yz*e^-2az + Ir-max*e^+yz*e^-2az
>
> same as it is for a transmission line. The I^2*R losses plus the
> radiation "losses" are combined into the attenuation factor 'a'.
> . . .

No, that isn't the equation I asked for. Nowhere in your equation are L1, L2, L3, L, I, or F. Whatever your equation is supposedly solving for, it isn't what I asked.

I feel strongly that if you really understand what you're talking about, you should be able to express it mathematically as an equation or equations. I haven't seen any evidence of this.

Roy Lewallen, W7EL

# 1433. Re: 15m Vertical Matching help

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-28 00:40:32 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <qYednQpOXs-d3R3cRVn-2g@comcast.com>
Source record: 87428

"J. Laub" <wd0bka@netscape.net> wrote in message
news:10o0b9opm3n8q2a@news.supernews.com...
> I've constructed a 1/4-wave 15m vertical from 11' of 3/4" copper tubing
> (water type). It's being fed with coax.
>
> Much to my frustration, I am unable to get this thing to resonate w/o the
> use of a transmatch. Any tips, ideas or good plans?
>
> 73's
>
> -=Jon

How long are your radials, and where are the? If you used four 11 foot radials, and drooped them down about 45 degrees, the antenna should look like 50 Ohms somewhere around 21.2 MHz. Is the SWR better at the high or low end of the band, i.e. 21.0 or 21.4 ? Coax is 50 Ohms, right. You might want to look in some charts to see how much effect the fat 3/4 conductor is going to make, as opposed to wire.

Tam/WB2TT

# 1434. Re: Gain per unit length of boom

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-28 00:52:36 UTC
From: "aunwin@insightbb.com"
Message-ID: <opXfd.14745$HA.10083@attbi_s01>
Source record: 87429

Richard,
It was ten years ago that this subject came up and which I used as a basis for
parallel circuit antennas versus series type antennas. It also led to the use of
circuitry analysis (complex circuitry) to provide for lossless feed systems and
cluster coupled antennas.
All of the above was ridiculed by the experts over the years because of my use of element coupling terminology, such that what it
pertained to was never taken seriously and sometimes mocked.
What is more frausterating to me is that many commercial antennas still pursue
gain to the extent that low impedance occurs and where the purchaser is forced
to purchase loss generating matching systems which robs him of some of the purchased gain. Force1 even notes in their literature that manufactures are supplying
poor matching impedances in the search of financial competitive gain
YOU are the first expert on this newsgroup to take a step back and pursued a
rethink of this subject and supplied your findings in a posting.
Possibly some will now subject you to ridicule or,
if your enunciation of Terman is convincing enough, will say they knew it all the
time but preferred to pursue harassement.
I thank you from the bottom of my heart for your courage shown in your last posting
and hopefully, others will build on, or pursue the implications/contents of your posting.
Best regards
Art KB9MZ Xg

"Richard Harrison" <richardharrison@webtv.net> wrote in message
news:10681-417FF37C-90@storefull-3251.bay.webtv.net...
> I wrote:
> "Critical coupling is defined as maximum energy transfer at the resonant
> frequency."
>
> Also:
> "Coupling additions (more loads) to a feedpoint lowers the impedance
> unless additional measures (transformations) are taken."
>
> I`ve since consulted Terman, and critical coupling is defined as I said

> above. Terman adds coupled elements differently than I did above.
>
> On page 64 of his 1955 edition, Terman defines critical coupling as:
> "These trends continue as the coefficient of coupling is increased until
> the coupling is such that the resistance which the secondary circuit
> couples into the primary at resonance is equal to the primary
> resistance. This is called the CRITICAL COUPLING and causes the
> secondary current to have the maximum value it can attain."
>
> On page 65, Terman`s statement supports Art:
> "When the coupled impedance is added to the self-impedance of the
> primary circuit, the effect at resonance is to increase the effective
> primary resistance above the value that would exist in the absence of
> the secondary. This causes the primary current at resonance to be
> reduced in all cases by the presence of the secondary."
>
> I wrongly assumed a coupled load would add to the primary current. I
> apologize to Art and to others who I misled.
>
> Best regards, Richard Harrison, KB5WZI
>

# 1435. Re: An easy experiment with a coil

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-28 02:09:08 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <clpkc4$hua$1@hercules.btinternet.com>
Source record: 87430

> If you really understand what you're talking about,
> you should be able to express it mathematically as an equation or
> equations.
>
> Roy Lewallen, W7EL

---

By far, the most sensible statement yet made in these interminable 'coil'
threads.

No need to quote Kelvin.

Maths comes first - THEN the arguments if there are any.
----
Reg.

# 1436. Re: Is there such a thing as "Best Omnidirectional FM antenna"?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-28 02:16:32 UTC
From: Crazy George <muNnscOh@attSglPobaAl.nMet>
Message-ID: <418059a8_4@news1.prserv.net>
Source record: 87432

Ummmm, look: Here is why answering an open ended question like yours is essentially impossible.

Who has a large financial interest in reaching an answer to this exact question? FM broadcast stations, that's who.
For transmitting. But, there remain about a half-dozen manufacturers still in that business, competing, and if one were
"The Best", then the others would quickly disappear from the business. For example, Andrew, Dielectric, Jampro,
Shively, and Superior are all still in business, AFIK, but are likely too pricey for your requirement. I happen to
prefer the Jampro myself. And Richard Harrison may have newer catalogs than I have at the moment.

And, when you put the unrealistic 1 meter dimensional restriction on it, then this "Best" description fails totally.

--
Crazy George
Remove N O and S P A M imbedded in return address
"Linux Lover" <linuxlover992000@yahoo.com> wrote in message
news:7687bfbd.0410271152.293fefb4@posting.google.com...
> Is there a product you can recommend as "The Best Omnidirectional FM
> antenna"?
>
> If so, which one is it? (brand/model and/or URL please)
>
> Oh - one significant constraint is that it cannot be larger than about
> 3 feet (1 meter) in any dimension, because it is going to be installed
> in my attic. I know it cuts the signal by 50%, but I am willing to
> live with that since I am assuming that if a whip antenna on a
> portable radio works great in my basement, a **good* omnidirectional
> FM antenna in the attic must work *at least* as good...
>
> An extensive search yielded only the Triax omni FM:
> http://www.towerhillaerials.com/viewProd.phtml?ref=52&orderNumber=0
> But where can you buy it in the USA?
>
> I also found an ANTENNACRAFT FMSS at STARK Electronics:
> http://www.starkelectronic.com/acantena.htm#FMSS, but the specs at
> that site say Boom length is 8' and Maximum Width say 55'. These can't
> be feet, right? They surely confused the foot symbol (') with the inch
> symbol (") - or did they?
>
> Anyway, any tip you can provide on finding such an omnidirectional FM

> antenna would be highly appreciated. VHF/UHF omnidirectional antennas
> that do *not* trap the FM band with a notch filter are welcome, too.
>
> Thanks,
> Lynn

# 1437. Re: 15m Vertical Matching help

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-28 02:16:37 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <PKedneeubdwbyx3cRVn-sQ@comcast.com>
Source record: 87431

I took a quick look at the ARRL antenna book. Assuming your 3/4 pipe is actually 1" OD, resonance will be off by quite a bit. About 6 - 7 inches too long.

Tam

# 1438. Re: what dish to capture a geostat. sat shifted of 75 deg long ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-28 02:22:59 UTC
From: Crazy George <muNnscOh@attSglPobaAl.nMet>
Message-ID: <41805b2c_2@news1.prserv.net>
Source record: 87433

Who here remembers Bob Cooper and CATJ magazine from 25 years ago?

There was a fellow in the UK who was doing exactly what you ask, but I can't remember his name. He wrote a column in
CATJ describing his work. I don't recall what size dish he used, but I am sure it was no larger than 10 meters, as he
had limited resources and space.

On the other hand, national governments routinely do what you are describing, using 50 to 100 meter dishes, even the 200
meter one in West Virginia before it collapsed.

--
Crazy George
Remove N O and S P A M imbedded in return address
"Thierry" <-> wrote in message news:417fe300$1@news.vo.lu...
> Hi,
>
> A question : how weak is a geostationnary satellite signal at the edge ?
> (case study)
>
> Imagine a geostationnary TV satellite like AMC-6 located over NY or so (72
> deg W) with a signal 50 dB in area 500 km wide, decreasing down to 30 dB a
> few hundreds miles offshore and thus very weak in Europe (10 dB ?)
> The satellite transmits two signals : its NTSC video (vertically polarized)
> near 3.88 GHz and an audio at 6.8 MHz FM mode (monaural), standard specs
> used e.g. by NASA TV.
>
> Is there a way to capture its signals from Europe (say ON) using a 2 to 4m
> wide type TVRO or Quorum dish (with preamp, NTSC/PAL converter, etc) knowing
> that its beam is quite narrow and the signal very weak ?
> In addition a beam cut on 6.8 MHz 'd be used to capture its FM signal on HF,
> the satellite being not to high above the horizon ... (supposition)
> NB. In this example the longitude difference is 50-75 degrees !!
>
> Theoretically, is it possible to built such a system being so far from the
> satellite and the satellite being so low over the horizon ?
> or the beamwidth of the satellite dish does not permit receiving at such
> longitude differences ?
>
> Or say in other words, has an european ham already tried to capture US
> geostat satellites successfully ? and using what kind of system (RX and
> antenna diam.)
> or conversely, has an US ham succeeded to capture signal from an european
> geostat satellite (Meteosat...) ?

>
> What should be the minimum antenna specs to get a "good" receive (diameter,
> preamp gain, without or without downconverter and then rx qrg, longitude
> difference max., signal strength at receive on 2m and 4m dish...)
>
> I think that it is possible with a dish >2m, but I 'd like a confirmation.
>
> Thanks in advance
>
> Thierry, ON4SKY
> http://www.astrosurf.com/lombry
>
>

# 1439. Re: Small VHF/UHF TV Broadcast Ant. (Channelmaster vs. Winegard)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-28 03:42:31 UTC
From: John Franklin <jpfrank@peoplepc.com>
Message-ID: <HUZfd.11450$ta5.9540@newsread3.news.atl.earthlink.net>
Source record: 87434
Cross-posted to: rec.radio.amateur.antenna,alt.tv.tech.hdtv

Why not just use a real TV yagi? Is Florida down on that too, seems
everything else in this FREAKIN' state is either against the environment, or
it detracts from the "natural beauty" of Florida.

# 1440. Re: An easy experiment with a coil

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-28 04:14:54 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41807051$1_1@127.0.0.1>
Source record: 87435

Roy Lewallen wrote:
> I feel strongly that if you really understand what you're talking about,
> you should be able to express it mathematically as an equation or
> equations. I haven't seen any evidence of this.

Well, You're right. I should be able to express it as an equation. Truth is, personality wise, I tend to deal in concepts, not equations. That's why the field of digital electronics was so appealing to me. "If it's not a zero or a one, it's broke!" I seem to have been born with a Boolean Algebra processor built in. (It's similar to the fact that I can read Spanish but I can't speak it.)

I have been satisfied all my life to let someone else provide the equations and so far, I have been able to stand on the shoulders of giants. But in this case, if anyone has ever provided the equations, I am not aware of it. If one is so inclined, one might get to be famous by generating those equations.

The S-parameter equations should work just fine at each individual impedance discontinuity. The trick is in knowing how much to reduce the incident and reflected voltages because of radiation. It's one approach to think about.

One possible solution would be to model the antenna as a transmission line, as Balanis and Kraus suggest. If we made a 1/4WL open-circuit stub out of resistance wire with Z0=600 ohms such that it's feedpoint impedance is 50 ohms, it should be a good approximation to an antenna wire.

In any case, the loading coil has a steady-state forward current (If) and reflected current (Ib) each of which undergo a phase shift through the coil. Any phase shift in phasors traveling in opposite directions is cause for their sums to be different at each end of the coil. I'm surprised that such a concept is controversial. Exactly the same concept applies to 'X' degrees of a transmission line with reflections.
--
73, Cecil http://www.qsl.net/w5dxp

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# 1441. Re: An easy experiment with a coil

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-28 04:29:48 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <418073cf$1_1@127.0.0.1>
Source record: 87436

Reg Edwards wrote:

>>If you really understand what you're talking about,
>>you should be able to express it mathematically as an equation or
>>equations.

> By far, the most sensible statement yet made in these interminable 'coil'
> threads.

Well, I have already posted the equations. During steady-state, there will be some magnitude of forward current (If) through the coil and some magnitude of reflected current (Ib) flowing backwards through the coil caused by reflections from the tip of the standing-wave antenna. The net current at any position up and down the antenna is Ir+Ib. That's a pretty simple equation. Since there is a phase shift in Ir and Ib through the large bugcatcher coil, the sum of Ir and Ib will not be the same at each end.

In an electrical 1/4WL antenna, like a typical 75m mobile antenna with no top hat, the If+Ib sum at the bottom will always be a larger magnitude than the If+Ib sum at the top. Modeling the coil as an eight-sided helix in EZNEC resulted in:

http://www.qsl.net/w5dxp/octcoil.gif

The net current at the bottom of the coil is obviously of a greater magnitude than the net current at the top of the coil. That's because If and Ib at the bottom of the coil are nearly in phase. Ir and Ib are about 58 degrees different in phase at the top of the coil. That tells me that the coil causes about a 29 degree phase shift when either Ir or Ib flows through it. It's not that simple but let's stick with simple for right now.
--
73, Cecil http://www.qsl.net/w5dxp

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# 1442. Re: Is there such a thing as "Best Omnidirectional FM antenna"?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-28 04:47:40 UTC
From: Linux Lover <linuxlover992000@yahoo.com>
Message-ID: <PomdnUfXWd8e5B3cRVn-vw@adelphia.com>
Source record: 87437

w9gb wrote:
> While there are a number of Directional FM antennas, here are the
> Omni-Directional FM Antennas - that you asked for:
>
> The Antenna Craft Model FM-SS (crossed folded dipoles)
> http://antennacraft-tdp.com/pdfs/FMSS.pdf
>
> The Winegard Model PR-6010 (Turnstile)
> http://www.winegard.com/offair/pdf/pr-6010.pdf

Thank you Greg. I guess these are the only available options that meet
my "specifications" (omnidirectional, can fit my attic).

Between these two, do you happen to know (or have an opinion) which one
is better?

Thanks,
Lynn

# 1443. Re: Is there such a thing as "Best Omnidirectional FM antenna"?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-28 05:04:42 UTC
From: Linux Lover <linuxlover992000@yahoo.com>
Message-ID: <41807DEA.8090606@yahoo.com>
Source record: 87438

Crazy George wrote:

> Ummmm, look: Here is why answering an open ended question like yours
> is essentially impossible.
>
> Who has a large financial interest in reaching an answer to this exact
> question? FM broadcast stations, that's who.
> For transmitting. But, there remain about a half-dozen manufacturers
> still in that business, competing, and if one were
> "The Best", then the others would quickly disappear from the business.
> For example, Andrew, Dielectric, Jampro, Shively, and Superior are all
> still in business, AFIK, but are likely too pricey for your requirement.
> I happen to prefer the Jampro myself.
> And Richard Harrison may have newer catalogs than I have at the moment.
>
> And, when you put the unrealistic 1 meter dimensional restriction on it,
> then this "Best" description fails totally.
>

George, thank you for this very informative answer. I was completely unaware of these companies and I can now try to perform a Google search - if only to satisfy my curiosity (if the antennas are too expensive, then perhaps I am not interested in the "best").

As for the "unrealistic 1 meter dimensional restriction", you are right. I actually meant "the best omnidirectional FM antenna within that 1 meter size restriction". Also, if I am lucky I may be able to fit even the Winegard PR-6010 (67" or 1.7m wide) in my attic.

BTW, what do you think of a wide 25-1300 MHz Discone antenna as an FM/VHF/UHF omnidirectional antenna (http://tinyurl.com/4anu7). Can this work? (assuming ghosting for TV is not a problem...)

If so, is there a solution to matching its 50 ohm impedance to the cable's 75 ohm?

Thanks,
Lynn

# 1444. Re: The "TRICK" to TV 'type' Coax Cable [Shielded] SWL Loop Antennas {RHF}

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-28 05:11:20 UTC
From: rhf-newsgroups@pacbell.net
Message-ID: <ff3145e8.0410272111.44ac1cc9@posting.google.com>
Source record: 87439
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

FO&A,

Connecting your TV 'type' Coax Cable [Shielded] SWL Loop Antenna
to your Table Top Shortwave Receiver or 'Portable' AM/FM/Shortwave
Radio.

Table Top Shortwave Receivers:
For "Receivers" with a SO-239 Jack for the External Antenna
you can use an "F" Jack to PL-259 Plug (SO-239 Adapter)
RadioShack Catalog # 278-258

'Portable' AM/FM/Shortwave Radios:
For "Radios" with a 1/8" Mono-Jack for the External Antenna
you can use an "F" Jack to 1/8" Plug (1/8" Mono-Jack Adapter)
RadioShack Catalog # 278-257

~ RHF
.
.
= = = rhf-newsgroups@pacbell.net (RHF) wrote in message
= = = news:<ff3145e8.0410250112.24a2abe3@posting.google.com>...
> YODAR,
>
> The "TRICK" to TV 'type' Coax Cable [Shielded] SWL Loop Antennas {RHF}
> http://groups.yahoo.com/group/Shortwave-SWL-Antenna/message/1626
>
> I too tried to build a Coax Cable [Shielded] Loop Antenna
> that was made of "TV type Coax" that had a 'Shield' made
> of Foil and about 33% Braid. The Results were very poor.
>
> Then I Got An IDEA "*" ! { K I S S }
>
> Why not use "Pre-Made" Parts :o) WHAT ?
>
> * One Piece of TV type Coax Cable with the "F" Connectors
> on both Ends. This can should be these Pre-Made Lengths
> Three Feet (3 Ft); Six Feet (6 Ft); Nine Feet (9 Ft);
> Twelve Feet (12 Ft); and Fifteen Feet (15 Ft); ETC.
>
> * One "F" Connector to PL-259 Plug (SO-239 Adapter)
> RadioShack Catalog # 278-258
>
> * One TV type Two-to-One Splitter with "F" Connectors.

> Get the one with the two Output "F" Connectors on
> 'opposite' Sides and the Input "F" Connector on the
> Bottom (looks like a 'T').
>
> THE SECRET IS TO BUILD A <NEXUS> LOOP-HUB:
> Using the Two-to-One Splitter. Remove the 'Seal' Plate
> from the Body of the Splitter. Remove the Ferrite Core
> and Wires from inside the Splitter. Next clean a 'Spot'
> inside the Body of the Splitter for a Solder Ground-Point.
> Use a Solder Gun (150W) to make this Solder Ground-Point;
> get in and get out quickly so that you do not melt the
> plastic insulation inside the "F" Connectors. Wrap a
> Wire around the Left "F" Connector Terminal. Route this
> Wire to the Solder Ground-Point on the Body of the Splitter.
> Using a Soldering Iron (35W) and Solder the Left Terminal
> and the Ground-Point. Next 'wrap' a Wire around the
> Bottom "F" Connector Terminal; and 'route' the Wire to
> the Right "F" Connector Terminal. Then you need to make
> a 'new' "Metal Cover" for the Splitter. I used one of
> those old AOL CD "Tins" that come in the Mail. They are
> thin enough to 'cut' with a Heavy Pair of Scissors .
> Cut and Trim a piece until it "Fits". Ensure your have
> good Metal-to-Metal 'contact' between the Cover and
> the Spliter and Glue them together for Security. You
> now have the <NEXUS> "LOOP-HUB" of your Coax Cable Loop
> Antenna.
>
> The Three Feet (3 Ft) piece of Coax Cable is your
> Feed-in-Line.
>
> MAKING YOUR "INTERCHANGABLE" LOOP ANTENNA ELEMENTS:
> The Six Feet (6 Ft); Nine Feet (9 Ft); Twelve Feet
> (12 Ft) and Fifteen Feet (15 Ft) Coax Cable are your
> [Shielded] Loop Antenna Elements. Fold them End-to-End
> and 'mark' a One Inch (1") Area at the Fold as their
> Mid-Point. Very Carefully 'cut' the Outer Insulation
> and then the Foil and Wire Braid away and out from this
> One Inch Area. {Do Not Damage the Inner Insulation and
> Center Wire of the Coax Cable.) Tape this One Inch Area
> and an Inch on each side for Strength and Security.
>
> TIP: If you have a Plastic Hula-Hoop or some 5/8" or
> 3/4" (White) Low Pressure Water Line Polyethylene Tubing
> as a "Form" to hold the Loops in a Circle Shape. This
> Tubing must 'slip-over' the Coax Cable's "F" Connectors.
>
> THE LOOP ANTENNA "HOOK-UP":
> * Slide the Coax Cable Loop Antenna Element into the
> Plastic Tubing.
> * Connect your Coax Cable Loop Antenna Element to the

> LOOP-HUB {Splitter}.
> * Connect your Coax Cable Feed-in-Line to the LOOP-HUB
> {Splitter}.
> * Install the "F" Connector to PL-259 Plug to the
> 'other end' of your Coax Cable Feed-in-Line and Connect
> to the your Radio/Receiver.
> * Shape and Position your Loop Antenna Element.
>
> CAUTION: When Installing the Coax Cable "F" Connectors
> into the "F" Connectors of the LOOP-HUB: Be careful to
> make sure that the Center Wire is NOT Bent and Shorted-Out.
>
> SIZING: This is a Low Noise SWL InDoor Loop Antenna that
> allows the 'changing' of the Loop Antenna Element for the
> Coverage of different Shortwave Bands. These Loops are 'cut'
> "Sized" to roughly One Tenth of a Wave Length (1/10WL)
> * Twenty-Five Feet (25 Ft) roughly the 120 Meter SW Band
> * Twenty Feet (20 Ft) roughly the 90 Meter SW Band
> * Fifteen Feet (15 Ft) roughly the 75 Meter SW Band
> * Twelve Feet (12 Ft) roughly the 60 Meter SW Band
> * Nine Feet (9 Ft) roughly the 41 Meter SW Band
> * Six Feet (6 Ft) roughly the 31 Meter SW Band
> * Five Feet (5 Ft) roughly the 25 Meter SW Band
> * Four Feet (4 Ft) roughly the 19 Meter SW Band
> * Three Feet (3 Ft) roughly the 13 Meter SW Band
> The above Lengths and SW Bands are 'based' on the low
> cost common {RadioShack} TV type RG-59 Coax Cable with
> a Velocity Factor of 0.66.
> NOTE: If you use RG6 "Quad Shield" Coax Cable that has
> a Velocity Factor of 0.78 to 0.82: Then every thing would
> shift down one SW Band 120M>90M, 90M>75M, 75M>60M, ETC.
>
> PACK-AND-GO "TRAVEL" LOOP ANTENNA:
> This Design-Set-Up makes for a 'portable' Travel SWL Loop
> Antenna that can be Taken-Down and Put-Up in a Minute or two.
>
> MEGA-SIZED FIFTY FOOT LOOP FOR THE AM/MW BROADCAST BAND:
> Take a Fifty Foot (50 Ft) piece of Coax Cable and Mount
> it OutSide Doors
> - 540 kHz to 1700 kHz with a MidPoint of 1120 kHz
> - Fifty Feet (50 Ft0 [1/10WL] VF=0.66 using RG59 Coax Cable.
> - Square shape 12.5 Feet per Side with 17.5 Cross-Arms.
> - Round shape 16 Diameter Circle.
> - Coax Cable Lead-in-Line 5-10 Feet.
> This is roughly the "Sizing" for the AM/MW Broadcast Band
> For DX-Peditions throw a 50 Foot Coax Loop Antenna Element
> Over a Tree Limb about 15 Feet High and stretch-out the two
> bottom side to form an Equilateral Triangle 17 Feet on a side.
> Hook-Up everything and sit-down and Listen :o)
>

>
> iane ~ RHF
> .
> Some Say: On A Clear Day You Can See Forever.
> http://groups.yahoo.com/group/Shortwave-SWL-Antenna/message/502
> I BELIEVE: On A Clear Night...
> You Can Hear Forever and Beyond - The Beyond !
> .
> .
> = = = In gccloopantennadesign@yahoogroups.com,
> = = = "YODAR" <yodar@in O'do> wrote:
> > I MADE MY FIRST ONE AND FLOPPED because I used TV Coax
> > (RG 58?) and there was no braid, it was foil and I
> > could make no solder connection...ARRGGGG
> >
> > The RG-8 second try was so ungainly and costly and
> > unyielding of ANY signal (perhaps I had failed with
> > a connection) , that I got irrigated (kind way of
> > saying P***ed OFF!) and threw it out.
> >
> > If I mess with Coax again it will be for an attic
> > SNAKE ANTENNA
> >
> > Yodar in O'do
> > who is still using SLINKIES
> >
> .

# 1445. Re: An easy experiment with a coil

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-28 05:56:30 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10o12gf18a9tt75@corp.supernews.com>
Source record: 87440

Perhaps it's your background as a manager that's in evidence here. I was one of the people that "concept" people like you "let" provide the equations. I have an apropos Doonesbury cartoon on my office wall:

Pointy-haired boss, pointing to simple graph labeled "Sales": "Sales are dropping like a rock."

Pointy-haired boss, pointing to a graph labeled "Future", with single upward line: "Our plan is to invent some sort of doohickey that everyone wants to buy."

Pointy-haired boss, to Dilbert: "The visionary leadership work is done. How long will your part take?"

At review time, the boss judged me on whether the "doohickey" worked according to specifications that he and some marketing people came up with in "concept" meetings. All I had to do was to understand the science, come up with the equations, develop new technology as required, create the device, and make it work -- all on a schedule and within a budget which were also dictated by the "visionaries". Just grunt work, not worthy of the visionary people who were doing more important things.

I don't believe for a minute that the boss really understood how the device worked. And for the same reason, I don't believe that you really understand the "concepts" you're promoting. Real science and engineering are done by understanding the basic concepts, developing mathematical models of them based on those understandings, then using those models to test the theory. Without the understanding and models, the theories can't be tested. Then all you have are smoke, mirrors, and hand waving. Instead of solid, testable evidence, you just about have to resort to diversion, evasion, misinterpretation, and the other tools of the politician and upper level manager. As important and richly rewarded as those skills are, it isn't science and it isn't engineering, and it doesn't constitute evidence of any knowledge or understanding.

You seem to have convinced a few readers of the group that you know what you're talking about. Since you're apparently not able to express your ideas in concrete form, perhaps one of them will volunteer to do the mundane work of developing a coherent theory to explain it in scientific and mathematical terms. My only question to them is:

How long will your part take?

Roy Lewallen, W7EL

Cecil Moore wrote:
> Roy Lewallen wrote:

>
>> I feel strongly that if you really understand what you're talking
>> about, you should be able to express it mathematically as an equation
>> or equations. I haven't seen any evidence of this.
>
>
> Well, You're right. I should be able to express it as an equation. Truth
> is, personality wise, I tend to deal in concepts, not equations. That's
> why the field of digital electronics was so appealing to me. "If it's
> not a zero or a one, it's broke!" I seem to have been born with a Boolean
> Algebra processor built in. (It's similar to the fact that I can read
> Spanish but I can't speak it.)
>
> I have been satisfied all my life to let someone else provide the equations
> and so far, I have been able to stand on the shoulders of giants. But in
> this
> case, if anyone has ever provided the equations, I am not aware of it. If
> one is so inclined, one might get to be famous by generating those
> equations.
> . . .

# 1446. Re: An easy experiment with a coil

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-28 06:06:26 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10o1332mjqcjs07@corp.supernews.com>
Source record: 87441

Cecil Moore wrote:

> Reg Edwards wrote:
>
>>> If you really understand what you're talking about,
>>> you should be able to express it mathematically as an equation or
>>> equations.
>
>
>> By far, the most sensible statement yet made in these interminable 'coil'
>> threads.
>
>
> Well, I have already posted the equations. . .

Well, no you haven't. Why do you keep saying that? I asked a simple question, and instead of answering it, you've answered some other question that you prefer, then claim it's the answer to the question I asked.

I took only one political science course in college, and that was the technique used by the majority of students. It's also the universal technique of political candidates. I'm asking techical and engineering questions, and you're giving political answers. No wonder we don't communicate.

This isn't a game I like to play and, since leaving the cube farm, it's one that I no longer have to. So I'll bow out again and leave it to the folks who do enjoy this form of discourse.

Roy Lewallen, W7EL

# 1447. Re: An easy experiment with a coil

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-28 06:11:13 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41808b95$1_5@127.0.0.1>
Source record: 87442

Roy Lewallen wrote:
> I feel strongly that if you really understand what you're talking about,
> you should be able to express it mathematically as an equation or
> equations. I haven't seen any evidence of this.

Taking a look at just the loading coil, the math is very simple.
Since a loaded mobile antenna is a standing wave antenna, there
exists a forward current through the coil. Balanis labels that
current as 'If'. There also exists a reflected current flowing
backwards through the coil. Balanis labels that current as 'Ib'.
The current at any point in the coil is the superposed sum of
If + Ib. The net current within the coil is approximately a section
of a cosine function.

On my web page is a mobile antenna modeled with EZNEC using a
segmented octal shaped coil.

http://www.qsl.net/w5dxp/octcoil.gif

EZNEC reports that the current at the bottom of the coil is
0.9956 amps and the current at the top of the coil is 0.5326.
Assuming the current is approximately a cosine function through
the coil, the approximate number of degrees occupied by the coil is:

arccos(0.5326/0.9956) = ~58 degrees

The other eight feet of antenna is equal to about 42 degrees
at 13.5 MHz.

58 + 42 = 100 degrees is within 10% of being 90 degrees and
seems reasonable for a ballpark estimate. This seems to be
a clue that a loaded mobile antenna is electrically slightly
longer than 90 degrees.

The forward current and reflected current magnitudes through the
coil are probably within 90% of each other for a mobile antenna.
Kraus considers them to be equal for a dipole discussion
in his book. Considering them to be equal introduces a small error
but is good enough for a reasonable estimate.

The point is that the difference in the net current at each
end of a coil gives us a rough estimate of the number of electrical
degrees that the coil occupies in the antenna. The whip above the
coil can be considered as a load on the source energy at the top
of the coil. It is unlikely that the coil is capable of changing
the characteristics of the load which would be necessary if Tom
were right.

If the coil occupies zero degrees, as implied by Tom, W8JI, then
the other 8 feet of the antenna would have to occupy 90 degrees
to make the feedpoint impedance resistive. I would say that shoving
90 degrees into 8 feet of whip at 13.5 MHz is impossible. That 8
feet of antenna would have to have a velocity factor of 0.46 which
is unlikely. At 4 MHz, that 8 feet of antenna would have to have a
velocity factor of 0.137 to occupy 90 degrees. That's seems obviously
impossible. Tom's requirement that a wire change velocity factor with
frequency is really hard to accept.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
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# 1448. Re: An easy experiment with a coil

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-28 06:21:43 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41808e0a$1_1@127.0.0.1>
Source record: 87443

Roy Lewallen wrote:
> You seem to have convinced a few readers of the group that you know what
> you're talking about. Since you're apparently not able to express your
> ideas in concrete form, perhaps one of them will volunteer to do the
> mundane work of developing a coherent theory to explain it in scientific
> and mathematical terms.

You must have missed some of my postings. I have already expressed my
ideas in concrete form. Maybe you don't like the simplicity of

Itot = I+ + I- (I+ is forward current and I- is reflected current)

Standing wave antennas possess standing waves. Standing waves occur
when forward waves and reflected waves are superposed. The phase
rotation of these two component currents are in opposite directions.
The result is a sinusoidal function for both net voltage and net current.

Any real-world air-core coil has a phase delay that affects the forward
current and the reflected current. Since they are phase rotating in
opposite directions, the overall effect is doubled. It's all explained
on my web page. Have you taken time to read it?
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

# 1449. Re: An easy experiment with a coil

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-28 06:32:28 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41809090$1_5@127.0.0.1>
Source record: 87444

Roy Lewallen wrote:

> Cecil Moore wrote:
>> Well, I have already posted the equations. . .
>
> Well, no you haven't. Why do you keep saying that?

Because it's true. Here are the equations again.

A loading coil exists in a standing-wave antenna.
The forward current through the loading coil is I+.
The reflected current through the loading coil is I-.
The net current at any point in the coil is I+ + I- (phasor addition)
The magnitude of the net current depends upon the phase of I+ and I-.

Itot = I+ + I-

There's the equation that I have already posted many, many times.
Sorry you missed it.

A rough estimate of the net current at the top of a loading coil
can be had by estimating the number of degrees occupied by the
coil and assuming a net current cosine function through the coil.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
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# 1450. Re: An easy experiment with a coil

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-28 06:44:33 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10o15ahp0t78nbf@corp.supernews.com>
Source record: 87445

Cecil Moore wrote:

> Roy Lewallen wrote:
>
>> You seem to have convinced a few readers of the group that you know
>> what you're talking about. Since you're apparently not able to
>> express your ideas in concrete form, perhaps one of them will
>> volunteer to do the mundane work of developing a coherent theory to
>> explain it in scientific and mathematical terms.
>
>
> You must have missed some of my postings. I have already expressed my
> ideas in concrete form. Maybe you don't like the simplicity of
>
> Itot = I+ + I- (I+ is forward current and I- is reflected current)
>

I love the simplicity of Itot = I+ + I-. I also like the simplicity of 1 + 1 = 2, V = I/R, and e^(j*pi) = -1. But none of these is adequate to determine the current at the top and bottom of a loading coil.

> Standing wave antennas possess standing waves. Standing waves occur
> when forward waves and reflected waves are superposed. The phase
> rotation of these two component currents are in opposite directions.
> The result is a sinusoidal function for both net voltage and net
> current.
>
> Any real-world air-core coil has a phase delay that affects the
> forward current and the reflected current. Since they are phase
> rotating in opposite directions, the overall effect is doubled. It's
> all explained on my web page. Have you taken time to read it?

Yes, and for the life of me I can't see how to use it to find the current at the top and bottom of a coil in a simple monopole.

But I'm kind of dense. Can one of the many other readers of this group kindly explain how Cecil's equations and explanations are used to actually figure out what the current will be at the top and bottom of a loading coil? Yuri, you seem to understand it -- can you explain it to me? Richard? Surely the necessary equations are in one of your books?

Roy Lewallen, W7EL

# 1451. Re: 15m Vertical Matching help

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-28 07:41:59 UTC
From: Mogens <mogens@skalikkebrugespetsens.dk>
Message-ID: <4180a2c8$0$242$edfadb0f@dread12.news.tele.dk>
Source record: 87446

"J. Laub" <wd0bka@netscape.net> wrote in message
news:10o0b9opm3n8q2a@news.supernews.com...
> I've constructed a 1/4-wave 15m vertical from 11' of 3/4" copper tubing
> (water type). It's being fed with coax.
>
> Much to my frustration, I am unable to get this thing to resonate w/o
> the use of a transmatch. Any tips, ideas or good plans?
>
Is it ground mounted? And what kind of radial are in use (if any).

Does resonate in your terms mean that you have a low swr?

Mogens

# 1452. Re: An easy experiment with a coil

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-28 08:03:10 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10o19tuqk44fb94@corp.supernews.com>
Source record: 87447

Roy Lewallen wrote:

> Cecil,
>
> In a simple monopole with one inductor, let L1 be the distance from
> the > base of an antenna to the bottom of the loading coil in meters,
> L2 the length of the loading coil, L3 the distance from the top of the
> loading coil to the top of the antenna. I is the base current, L the
> inductance value and F the frequency. You can assume the antenna is
> very thin.
>
> Since your theory is so elegant and well developed, and you've had
> such an excellent education at Texas A&M, it shouldn't be difficult at
> all for you to write a couple of simple equations which give the
> currents at the two ends of the coil. In the time-honored methods of
> science, your equations can then be tested against modeled and
> measured results to prove the validity of your theory.
>
> Roy Lewallen, W7EL
>

Cecil Moore wrote:

>>
>>> Well, I have already posted the equations. . .
>
> . . . Here are the equations again.
>
> A loading coil exists in a standing-wave antenna.
> The forward current through the loading coil is I+.
> The reflected current through the loading coil is I-.
> The net current at any point in the coil is I+ + I- (phasor addition)
> The magnitude of the net current depends upon the phase of I+ and I-.
>
> Itot = I+ + I-
>
> There's the equation that I have already posted many, many times.
> Sorry you missed it.
> . . .

Helloo. . . Anybody home?

Roy Lewallen, W7EL

# 1453. Re: 15m Vertical Matching help

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-28 10:13:17 UTC
From: JACK BENNETT <g3pvg@btinternet.com>
Message-ID: <clqgnt$fdd$1@hercules.btinternet.com>
Source record: 87448

Hi John,

You didn't say, but I assume that you are feeding it against several quarter wave radials at or near ground level. You will get a feed impedance of less than 50 ohms, so you will need some matching to get a 1:1 swr. You need to concentrate on getting resonance irrespective of swr and then match the anteena feed for minimum swr. This can be done quite simply by putting a capacitor, usually silver mica, across the coax at the feed point, or by inserting a transformer between the coax and the antenna to match something like 10 to 20 ohms to the 50 ohm feed. The capacitor is the easiest to try first, and you will probably need something between 50 and 100 pf.

I hope you find this useful, and I wish you success. 73, Jack. G3PVG.

"J. Laub" <wd0bka@netscape.net> wrote in message
news:10o0b9opm3n8q2a@news.supernews.com...
> I've constructed a 1/4-wave 15m vertical from 11' of 3/4" copper tubing
> (water type). It's being fed with coax.
>
> Much to my frustration, I am unable to get this thing to resonate w/o
> the use of a transmatch. Any tips, ideas or good plans?
>
> 73's
>
> -=Jon

# 1454. Re: An easy experiment with a coil

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-28 12:22:52 UTC
From: k3bu@aol.comNoUsama
Message-ID: <20041028082252.22356.00002476@mb-m16.aol.com>
Source record: 87449

>
>But I'm kind of dense. Can one of the many other readers of this group
>kindly explain how Cecil's equations and explanations are used to
>actually figure out what the current will be at the top and bottom of a
>loading coil? Yuri, you seem to understand it -- can you explain it to
>me? Richard? Surely the necessary equations are in one of your books?
>
>Roy Lewallen, W7EL
>

I will leave Cecil's equation to Cecil, but I will point out that you can use your own creation EZNEC 4+ and HELIX feature to model the quarter wave vertical with loading coil. I did it after your pointed out HELIX feature and posted it at the beginning of my thread, here it is again, actually using "worst" case of 10m loaded whip (not too much loading) and demonstrating significantly different (not equal) currents at coil's ends. Did I do anything wrong?

Here it is again:
<<
I took the time to check out the Helix feature in EZNEC 4.08 and modeled the "worst" case - CB whip or 10 m whip with loading coil - helix half way up and then the same helix moved up to 3/4 way up. Things will get more pronounced when more turn, more inductance coil is used and frequencies are lower. Yes, Virginia there is a CURRENT DROP across the loading coil, unless you have more "appropriate" or "scientwific" term for it.

Rough dimensions: 1m mast (5 mm copper wire/tubing), 20 cm long coil/helix with 5 cm diameter turns, 5mm wire diameter, 10 turns, spacing 2 cm followed by 1 m whip
Resonated at 27.05 MHz
With base current 1 A, at the end of mast/start of coil the current is 0.87457 A
at the end of coil/start of whip the current is 0.66884 A - a decent drop of 0.20573 A or 20.5 % - not an "EQUAL" (you DC coil believer types!!!)

Then I moved the same coil up 50 cm, so the mast was 1.5 m, same coil, followed by .5 m of whip.
Again with base current of 1 A, the bottom of the coil had current this time was 0.65479 A, while top of the coil 0.37127 with larger drop of 0.28352 A or 28.3 % - even bigger not "EQUAL" with resonant frequency moving up to 28.7 MHz, which corresponds to REALITY measured, experienced and finally properly (close enough) modeled. Even M0RON (with apologies if there is call like that issued :-) can see the nice current drop across the coil displayed in the VIEW.

Thank you Roy (now you believe it?), Cecil, Richard. Now the unbelievers can even model this case themselves and SEE it properly. So ON4UN, K3BU, W9UCW,

W5DXP, KB5WZI were and are right. W8JI, G3SEK et al are sooooo wrong :-) Some still persist, some are converted and many will be enlightened.

Now if Roy can incorporate elegant way of modeling real life coil/inductance by inputing Inductance L and its physical size and have it calculate things without modeling turns, that would be a winner and a segment saver.
>>

Not sure if you saw it, but it looks to me that even EZNEC 4+ is on "our" side.

73 Yuri, K3BU.us

# 1455. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-28 12:27:26 UTC
From: "H. Adam Stevens, NQ5H" <NQ5H@ARRL.net>
Message-ID: <10o1pf9f2sjqra3@corp.supernews.com>
Source record: 87450

"Jim Kelley" <jwkelley@uci.edu> wrote in message
news:clp8gg$cpe$1@news.service.uci.edu...
deletia....

> I have a question. If a loading coil only makes a physically short
> antenna look like it's an electrical quarter wavelength reactively, why
> does its position along the radiator make such an apparent difference in
> performance?
>
> 73, Jim AC6XG
>

My first reaction is to point out that this was (is?) a question on the Extra exam.
Now how can I explain qualitatively why this is?
Consider an end-fed wire antenna.
An electromagnetic wave goes through the conduction electrons down to the end and reflects back.
At 1/4 wavelength, the reflected wave is exactly in phase with the source so the load looks minimal and resistive, loss plus radiation. As the antenna gets shorter the radiation resistance gets lower and the reflected wave gets back to the feed point sooner (becomes capacitive). We need to add inductance to slow down the wave so it gets back in phase. We cannot, alas, raise the radiation resistance; this is a short antenna. If I place the inductor at the feed point all the current must flow through it, maximizing loss. If I place it at the top little current flows through it, minimizing effectiveness. If I distribute it the antenna's resonance is broader, but at what cost? Lower Q. The signal strength is less. So I make the coil as short as I can, put it in the middle and it's juuust right.

73, H. NQ5H

# 1456. Re: An easy experiment with a coil

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-28 12:36:45 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <4180e5f0$1_5@127.0.0.1>
Source record: 87451

Roy Lewallen wrote:
> I love the simplicity of Itot = I+ + I-. I also like the simplicity of 1
> + 1 = 2, V = I/R, and e^(j*pi) = -1. But none of these is adequate to
> determine the current at the top and bottom of a loading coil.

We don't have to determine the current at the top and bottom of a loading coil. All we have to determine is that the current at the top and bottom of a loading coil cannot be equal in magnitude. It's a simple true/false logic question, not a question of degree of accuracy.

EZNEC says the currents are not equal when the helix feature is used to simulate a real-world coil.

Your and Tom's measurements proved that the currents are not equal except for Tom's one special toroidal case where he probably located the current maximum point within the inductor.

> Yes, and for the life of me I can't see how to use it to find the
> current at the top and bottom of a coil in a simple monopole.

You don't have any equations either but that doesn't stop you from making assertions about those currents. Why are you attempting to hold me to a higher standard than you hold yourself or Tom? I'm not asserting anything new. I learned the qualitative basics of this subject at Texas A&M almost half a century ago. I'm amazed that those basics don't seem to be taught any more.

> But I'm kind of dense. Can one of the many other readers of this group
> kindly explain how Cecil's equations and explanations are used to
> actually figure out what the current will be at the top and bottom of a
> loading coil? Yuri, you seem to understand it -- can you explain it to
> me? Richard? Surely the necessary equations are in one of your books?

It is not necessary to figure out what the current will be. That is just diverting the issue. All that is necessary for the present argument is to show that, in the 90 electrical degrees of a mobile antenna, that the two component phasor currents at each end of the coil don't add up to the same value. I have done that.

Since the bugcatcher coil shifts the phase of both the forward current and reflected current by the same amount in opposite directions, it is impossible for the current to have the same magnitude at both ends of the coil when the loading coil is installed at the 45 degree (center-loaded) point in an electrical 1/4WL antenna.
--
73, Cecil http://www.qsl.net/w5dxp

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# 1457. Re: An easy experiment with a coil

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-28 12:38:38 UTC
From: "H. Adam Stevens, NQ5H" <NQ5H@ARRL.net>
Message-ID: <10o1q47ovi1uqdd@corp.supernews.com>
Source record: 87452

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:10o19tuqk44fb94@corp.supernews.com...
deletia.....
> > Itot = I+ + I-
> >
> > There's the equation that I have already posted many, many times.
> > Sorry you missed it.
> > . . .
>
> Helloo. . . Anybody home?
>
> Roy Lewallen, W7EL

Now where was that chapter in E&M about "superposition of currents"?
Can't seem to find it. There is stuff about electromagnetic FIELDS.
In CecilsWorld wires have an infinite number of conduction electrons.
Reminds me of BushWorld where there Iraq had nukular weapons and we have
internets and the Rapture is coming.
Soon.
Roy, why do you bother?
73
H.

# 1458. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-28 12:46:36 UTC
From: k3bu@aol.comNoUsama
Message-ID: <20041028084636.22356.00002477@mb-m16.aol.com>
Source record: 87453

> If I place the
>inductor at the feed point all the current must flow through it, maximizing
>loss. If I place it at the top little current flows through it, minimizing
>effectiveness. If I distribute it the antenna's resonance is broader, but at
>what cost? Lower Q. The signal strength is less. So I make the coil as short
>as I can, put it in the middle and it's juuust right.
>
>73, H. NQ5H

Simple rule, as mentioned in ON4UN book, the efficiency of the antenna is proportional to the area under the current curve. When you model the antenna and view the current distribution and compare various cases with coil positioned at bottom, middle, top, it is obvious why. It also shows why it is important to understand the role of the loading coil and its effect on the current distribution along the radiator. This effect gets magnified when using loaded elements in parasitic beam designs. If you use "zero" size inductance in modeling, the results are "too good" and correlation with reality is way off. That's what is all about.

Yuri, K3BU.us

# 1459. Re: An easy experiment with a coil

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-28 13:11:16 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <4180ee06$1_5@127.0.0.1>
Source record: 87454

Yuri Blanarovich wrote:
> I will leave Cecil's equation to Cecil, ...

The equation, Itot=Ifor+Iref, doesn't look complex, but it is. :-)

> Not sure if you saw it, but it looks to me that even EZNEC 4+ is on "our" side.

I modeled an eight-sided coil in EZNEC 2.0 before I knew EZNEC+
had a helical feature. The result is at:

http://www.qsl.net/w5dxp/octcoil.gif

EZNEC reports that the current at the top of the coil is 0.5326
amps while the current at the bottom of the coil is 0.9956 amps.
I plotted the current in all 40 EZNEC 2.0 coil segments - looks
close to a cosine function to me with the coil occupying
roughly 50 degrees of the antenna.
--
73, Cecil http://www.qsl.net/w5dxp

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# 1460. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-28 13:21:05 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <4180f058$1_5@127.0.0.1>
Source record: 87455

H. Adam Stevens, NQ5H wrote:
> We need to add
> inductance to slow down the wave so it gets back in phase.

Exactly. The coil provides a delay and a phase shift. A series
stub will accomplish the same thing. In the middle of an
electrical 1/4WL antenna, any delay through the coil ensures
unequal net current at the bottom and top of the coil even
if the coil is lossless and non-radiating.
--
73, Cecil http://www.qsl.net/w5dxp

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# 1461. Re: Is there such a thing as "Best Omnidirectional FM antenna"?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-28 13:58:39 UTC
From: Howard <mensch90249@yahoo.com>
Message-ID: <55u1o01uf0cd9o0ud5dhn15ph830efiob7@4ax.com>
Source record: 87456

On Thu, 28 Oct 2004 01:04:42 -0400, Linux Lover
<linuxlover992000@yahoo.com> wrote:

>Crazy George wrote:
>
>> Ummmm, look: Here is why answering an open ended question like yours
> > is essentially impossible.
>>
>> Who has a large financial interest in reaching an answer to this exact
> > question? FM broadcast stations, that's who.
>> For transmitting. But, there remain about a half-dozen manufacturers
> > still in that business, competing, and if one were
>> "The Best", then the others would quickly disappear from the business.
> > For example, Andrew, Dielectric, Jampro, Shively, and Superior are all
> > still in business, AFIK, but are likely too pricey for your requirement.
> > I happen to prefer the Jampro myself.
> > And Richard Harrison may have newer catalogs than I have at the moment.
>>
>> And, when you put the unrealistic 1 meter dimensional restriction on it,
> > then this "Best" description fails totally.
>>
>
>George, thank you for this very informative answer. I was completely
>unaware of these companies and I can now try to perform a Google search
>- if only to satisfy my curiosity (if the antennas are too expensive,
>then perhaps I am not interested in the "best").
>
>As for the "unrealistic 1 meter dimensional restriction", you are right.
>I actually meant "the best omnidirectional FM antenna within that 1
>meter size restriction". Also, if I am lucky I may be able to fit even
>the Winegard PR-6010 (67" or 1.7m wide) in my attic.
>
>BTW, what do you think of a wide 25-1300 MHz Discone antenna as an
>FM/VHF/UHF omnidirectional antenna (http://tinyurl.com/4anu7). Can this
>work? (assuming ghosting for TV is not a problem...)
>
>If so, is there a solution to matching its 50 ohm impedance to the
>cable's 75 ohm?
>
>Thanks,
>Lynn
Lynn,,
Were I in your position I'd go with the Winegard Prostar 1000
referenced in an earlier post. That and the Antennacraft FMSS are

essentially the same so you may just want to choose between the two based on price. Radio Shack used to sell this antenna also, not in the current listings but perhaps a store near you has one left in 'old stock', their price was about $15 less the coax feedline. Forget the discone, it will work - though I can't say any better than the two antennas mentioned - but what you gain in reduced footprint is lost in the discone being taller. Also, you can expect to spend more for the discone.

FWIW, I put up the Radio Shack crossed dipole antenna at a friend's cabin and it took him from getting no FM reception to two stations. Okay, not an "FM DX antenna" but consider that he is 40 miles from any town of significance, the cabin is in a valley and there are taller mountains between him and anything else.

Good luck,
Howard

# 1462. Re: An easy experiment with a coil

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-28 14:00:18 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <4180f988_4@127.0.0.1>
Source record: 87457

H. Adam Stevens, NQ5H wrote:
> Now where was that chapter in E&M about "superposition of currents"?
> Can't seem to find it.

From: "Transmission Lines and Networks", Walter C. Johnson, page 244:
"10.4 The Principle of Superposition. If a number of electrical sources exist in a linear network, the resulting CURRENT or voltage in any part of the system is equal to the sum of the CURRENTS or voltages that would be caused by each source acting separately."

Emphasis mine. Now you know where it is. Here's another interesting quote from page 150:

"P = |E+|^2/Z0 - |E-|^2/Z0 We can regard the first term in this expression as the power associated with the forward-traveling wave, and the second term as the reflected power."

> Roy, why do you bother?

Because he knows I might learn something from him or he might learn something from me. How about you?
--
73, Cecil http://www.qsl.net/w5dxp

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# 1463. Re: 15m Vertical Matching help

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-28 14:00:24 UTC
From: "J. Laub" <wd0bka@netscape.net>
Message-ID: <10o1uros5gra442@news.supernews.com>
Source record: 87459

Tam/WB2TT wrote:
> I took a quick look at the ARRL antenna book. Assuming your 3/4 pipe is
> actually 1" OD, resonance will be off by quite a bit. About 6 - 7 inches too
> long.
>
> Tam
>
>
What page did u find that table on? This may explain why it tunes (with
transmatch) so much easier on 20 than 15.

# 1464. Re: 15m Vertical Matching help

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-28 14:02:28 UTC
From: "J. Laub" <wd0bka@netscape.net>
Message-ID: <10o1uvlo5egct9e@news.supernews.com>
Source record: 87458

Mogens wrote:

> "J. Laub" <wd0bka@netscape.net> wrote in message
> news:10o0b9opm3n8q2a@news.supernews.com...
>
>>I've constructed a 1/4-wave 15m vertical from 11' of 3/4" copper tubing
>>(water type). It's being fed with coax.
>>
>>Much to my frustration, I am unable to get this thing to resonate w/o
>>the use of a transmatch. Any tips, ideas or good plans?
>>
>
> Is it ground mounted? And what kind of radial are in use (if any).
>
> Does resonate in your terms mean that you have a low swr?
>
> Mogens
>
>
Yes, ground mounted and using 4 5-1/2ft radials. Bad word choice in
orig post-poor SWR is the problem. The other poster mentioned my pipe
diameter may be an issue. Am looking into that now.

# 1465. Re: 15m Vertical Matching help

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-28 14:07:43 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <4180fb42$1_1@127.0.0.1>
Source record: 87460

J. Laub wrote:
> Yes, ground mounted and using 4 5-1/2ft radials.

Try making one of them 11 feet long and see what happens.
--
73, Cecil http://www.qsl.net/w5dxp

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# 1466. Re: The "TRICK" to TV 'type' Coax Cable [Shielded] SWL Loop Antennas {RHF}

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-28 14:19:04 UTC
From: gene@csl.uiuc.edu
Message-ID: <clqv4o$duv$1@news.ks.uiuc.edu>
Source record: 87461
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

This seems like a good place to insert a discussion about a
"shielded loop" being a myth for anything except for deeper
nulls in the directivity pattern: (these were posted about
18 months ago).
---
---

From: Roy Lewallen <w7el@eznec.com>
Date: Fri, 21 Mar 2003 11:30:17 -0800
Newsgroups: sci.electronics.design,alt.engineering.electrical,rec.radio.amateur.antenna
Subject: Re: Loop Antenna questions

It's fairly easy to see that what Tom wrote (the first paragraph of
quoted material below) is true. "Shielding" a loop simply moves the
feedpoint to the gap, and the outside of the "shield" becomes the loop.
It's no more or less immune to electric fields than any other loop. What
"shielding" does (and all it does) is to increase rejection of common
mode excitation, improving loop balance and the resulting pattern null
in practical installations. The sensitivity of a "shielded" loop to both
electric and magnetic fields is exactly the same as for an "unshielded"
loop.

The myth that "shielding" a loop somehow rejects the electric field
without affecting the magnetic field is one that's been kicking around
the amateur community for decades. I don't suppose it'll ever die.

Another thing that seems to be unknown or overlooked is that a small
(so-called "magnetic") loop antenna is actually more sensitive to an
electric field and less sensitive to a magnetic field than a short
("electric") dipole, at all distances from the antenna unless the
radiation source is very close -- within less than a wavelength.

Roy Lewallen, W7EL

JLB wrote:
>>The external "metal toroid" is then the antenna, for it is on the
>>outside of that "toroid" that antenna currents must exist, and not
>>inside it. The gap is then the feedpoint, to which the internal wire
>>couples and then acts as a simple feedline. To best reject response
>>to electric fields, the gap must be properly positioned...
>>
>
>
> No, the gap is usually opposite the feed point and the sheild is grounded.

> It shields the loop from electric fields but it still responds to magnetic
> fields. This is common practice and the idea has been around for many
> decades. From personal experience I can say that it makes a tremendous
> difference in the sensitivity pattern of the loop, even when extremely close
> to other conductors (including AC house wiring).
>
>
>>References available on request.
>>
>
> Ok, what are they?
>
> Jim
> N8EE
>
>
>

From: Roy Lewallen <w7el@eznec.com>
Date: Fri, 21 Mar 2003 22:52:21 -0800
Newsgroups: sci.electronics.design,alt.engineering.electrical,rec.radio.amateur.antenna
Subject: Re: Loop Antenna questions

After some reflection, I see that I can't really justify the statement I
made. Thanks for questioning it.

Let me explain what I do know. The following discussion assumes that all
antennas are lossless, to eliminate a factor that would obscure the
subject under discussion.

If you put 100 watts into a very short dipole, the ratio of the E field
it produces to the H field it produces is called the wave impedance. At
a distance of considerably less than a wavelength, or greater, this
ratio is about 377 ohms (in air or free space), and E and H are in
phase. The same thing is true for a very small loop antenna, or any
other small antenna. If you get far enough away, the E/H ratio is the
same for any kind of antenna, although you might have to get a farther
from an antenna that's large in terms of wavelength. Invoking the
reciprocity principle, you find that the relative response of a small
loop to E and H fields is the same as for a small dipole if the field
originates some distance from the antenna. The so-called "magnetic" loop
responds just the same as any other antenna to fields originating beyond
a wavelength or so from the antenna.

What's interesting is the relative strength of radiated E and H fields
close to the antenna. My overstatement was the implication that the
ratio of E to H transmitted fields represent relative "sensitivity" to E
and H fields when receiving. Contrary to what the CFA and EH proponents
claim, it's not possible to generate E and H fields independently. And
contrary to what people who misunderstand "shielded" loops say, it's not
possible to isolate E and H fields. (It is possible to change the
impedance of a wave -- that is, the E/H ratio -- in a region, but it

always reverts back to the impedance of the medium -- 377 ohms for free space -- within a pretty small distance of the disturbance.) So sensitivity to an E or H field is somewhat problematic, since you can't create either one in isolation for a test. Consequently, I'll just discuss the E and H fields that the antennas produce when transmitting. I believe that an antenna with high transmit E/H ratio will be relatively insensitive to a wave with low E/H ratio (which would have to be created nearby), and vice-versa. But I can't quantify the relationship. I only know it involves the concept of transfer impedance, and I haven't given the topic enough study to say more about it. It is discussed in a number of texts, for those who are interested.

What I've done is look at the E/H ratio radiated by a small loop and a small dipole at various distances, in the direction of the maximum far field radiation (in the plane of the loop and broadside to the dipole).

The following analysis was done with EZNEC/4 using its double precision NEC-4 calculating engine. This was necessary because of problems NEC codes have with very small loops, and the size of loop I chose was too small for analysis with NEC-2. However, it could probably be done with MININEC, or it could be done with an NEC-2 based program like the EZNEC demo if the loop is made a bit larger. It's vital to set the loss to zero so that a negative feed point impedance isn't concealed by positive loss resistance. I've gotten email from a person who was skeptical of the results and did the calculations analytically. He came to the same conclusion, which gives me added confidence in the results. The following calculations were done at 3 MHz (100 meter wavelength).

Here's what happens. A small loop is sometimes called a "low impedance" antenna because of the low E/H ratio close to the antenna. This might be adequate justification for calling it a "magnetic" antenna as amateurs have taken to doing, but the term unfortunately conveys the mistaken impression that the antenna somehow responds only to or more strongly to magnetic fields coming far from the antenna, which isn't true. But very close to the antenna, the E/H ratio is indeed lower than the 377 ohm value this ratio always has far from the antenna. In exactly complementary fashion, a small dipole is a "high impedance" antenna, having an E/H ratio higher than 377 ohms very close to the antenna. Here are the values of the magnitude of E/H for a 2 meter (1/50 wavelength) circumference octagonal loop and a 2 meter long dipole at 3 MHz. The distance is measured from the center of the loop or dipole, and the direction is in the plane of the loop or broadside to the dipole.

Distance (m) E/H (ohms)
Dipole Loop
2 2630 63.9
4 1360 110
6 862 169
8 597 241
10 440 326
12 345 414

14 291 490
16 265 538
18 257 555
20 258 552
22 264 538
24 273 522
26 281 506
28 290 491
30 297 478
50 342 415
100 367 386

The curious thing is that, while the dipole field impedance is high close to the dipole, and low close to the loop, in both cases it overshoots 377 ohms by a considerable amount, reaching a peak (lowest Z for the dipole and highest for the loop) at about 18 meters, then asymptotically approaches 377 ohms from the "wrong side" beyond that. At all distances of 12 meters (about 1/8 wavelength) and beyond, the E/H ratio of the loop is actually higher than that of the dipole! That was the basis for my original statement. Whatever might be said about the "sensitivity" of a "magnetic" loop to E and H fields, it certainly can't be said to be more sensitive to H fields, or less sensitive to E fields, than a small dipole, at any distance greater than about 1/8 wavelength.

The exact sizes of the loop and dipole aren't important. The near fields at these distances are essentially equal for all small dipoles and for all small loops for a given input power, provided that they're much smaller than a wavelength in any dimension.

Roy Lewallen, W7EL

Reg Edwards wrote:
> Roy says -
>
>
>>- - - - a small
>>(so-called "magnetic") loop antenna is actually more sensitive to an
>>electric field and less sensitive to a magnetic field than a short
>>("electric") dipole - - - -
>
>
> ----------
>
> Roy,
>
> What are your units of "sensitivity"?
>
> How are things to be measured (even hypothetically) and compared?
>
> In any case, the statement is meaningless unless loop diameter and dipole
> length are incorporated.

>
> Explanation please.
>
> A simple learned reference will not be of much use since 99.9 percent of
> readers will have no chance of ever getting their hands on it.
>
> Yours, Reg, G4FGQ
>
>
>
>
>

From: Roy Lewallen <w7el@eznec.com>
Date: Sat, 22 Mar 2003 13:15:46 -0800
Newsgroups: sci.electronics.design,alt.engineering.electrical,rec.radio.amateur.antenna
Subject: Re: Loop Antenna questions

Richard Clark wrote:

> If anything, your work contributes to the notion of these "notable"
> differences rather than eliminates them. You forcefully detail how
> different the short dipole is from a small loop to exactly the same
> degree as offered by CFA/EH proponents as that being its boon - even
> if they invert the rationale of what constitutes the sensitivity.
> This is to say, that if they are entirely wrong about a magnetic
> antenna being sensitive to the magnetic field (something you reject
> and offer compelling numbers as evidence); they do have a point about
> the magnitude of difference (they are not entirely wedded to the
> principle as they are the effect - if in fact that effect is not
> another figment of wish fulfillment).

My understanding of the CFA/EH antenna is undeniably vague, but I think it goes something like this: The E and H fields are created independently, one by a capacitor-like part of the antenna and the other by a coil-like part of the antenna. This, as I said and as many others have pointed out, can't be done. Creation of a time-varying E field always results in a time-varying H field, and vice-versa. The E and H fields thus "independently" created are done so in the ratio of 377 ohms. This being the ratio of the the components in the far field, the direct synthesis results in the lack of a near field. This lack of near field is credited somehow with the magical properties of these antennas (high efficiency despite small size) by mechanisms that have never been clear to me. At any rate, these wonderful properties have never been demonstrated with either believable measurements or modeling despite more than a decade of hype, so it sure looks like they're fiction also. The EH antenna further distinguishes itself by requiring a magic inductor whose current at one terminal is shifted in phase 90 degrees from the current at the other terminal, adding yet another layer of impossibility.

If I've misinterpreted the explanations for how these things are supposed to work, I apologize -- it wasn't intentional.

> The argument about being less sensitive to neighborhood noise for
> magnetic antennas, small loops, or loops in general, seems to be
> justified by your data supporting very different E/H ratios out to
> about 10M, which for me is easily the most disruptive region to any
> antenna in a noisy neighborhood and makes that case in some sense.

It might. Remember, though, that this is constant in terms of wavelength, so the range drops by a factor of two at twice the frequency. (But on the other hand, the range will be greater at 160 meters.) Also, note that the difference isn't very great even at a distance of 10 meters. You have to get very close indeed to see a truly major difference. I suspect that major differences in interference rejection are as likely to be due to differences in balance (causing better or worse nulls) or polarization.

> It seems to me that the difference applies only to situations where
> that first 10M is significant, and to what degree coupling of
> interference within that region becomes meaningful.

Yes, that's the conclusion I reach.

Roy Lewallen, W7EL

# 1467. Re: An easy experiment with a coil

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-28 15:13:34 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <og12o0pve0ttou0aefndmn0j34qi6rsqvv@4ax.com>
Source record: 87462

On Wed, 27 Oct 2004 23:44:33 -0700, Roy Lewallen <w7el@eznec.com>
wrote:
> can you explain it to me? Richard?

Hi Roy,

This Richard could with his books, but I doubt you meant me (that's
why the FCC assigns call signs).

So, given my toe-hold of ambiguity....

The explanation was offered by my posting quoting Poe:

"The error of our progenitors was quite analogous with that of the
wiseacre who fancies he must necessarily see an object the more
distinctly, the more closely he holds it to his eyes. They blinded
themselves, too, with the impalpable, titillating Scotch snuff of
detail; and thus the boasted facts of the Hog-ites were by no
means always facts -- a point of little importance but for the
assumption that they always were. The vital taint, however, in
Baconianism -- its most lamentable fount of error -- lay in its
tendency to throw power and consideration into the hands of merely
perceptive men -- of those inter-Tritonic minnows, the
microscopical savans -- the diggers and pedlers of minute facts,
for the most part in physical science -- facts all of which they
retailed at the same price upon the highway; their value
depending, it was supposed, simply upon the fact of their fact,
without reference to their applicability or inapplicability in the
development of those ultimate and only legitimate facts, called
Law."

Of course, this was encumbered by more commentary from Poe, and as
this group has such difficulty in reading English, then perhaps the
nuances were lost to the greater appreciation of what was being said.

I will hit the hi-lights:

The term "wiseacre" hasn't lost its currency over the course of 165
years, but I suppose many english (lower case) readers probably have
lost track of the meaning of "minute" to presume it is only a unit of
time.

"... the wiseacre who ... must necessarily see an object the more
distinctly, the more closely he holds it to his eyes. ... the
diggers and pedlers of minute facts, ... their value depending ...
simply upon the fact of their fact, without reference to their
applicability ..."

To translate this Classic Comix edition of Poe into techno-jargon:

"Current Drop" accounts for less than 1dB in the far field.

To boil it down further for those who parse only Anglo-Saxon

BFD

73's
Richard Clark, KB7QHC

# 1468. Re: Is there such a thing as "Best Omnidirectional FM antenna"?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-28 15:32:30 UTC
From: Linux Lover <linuxlover992000@yahoo.com>
Message-ID: <4181110E.209@yahoo.com>
Source record: 87463

Howard wrote:

> Forget the discone, it will work - though I can't say any better
> than the two antennas mentioned - but what you gain in reduced
> footprint is lost in the discone being taller.
> Also, you can expect to spend more for the discone.

If I can fit it in my attic *and* eliminate the need to have two antennas (TV and FM), I am willing to spend the extra cost (up to $100).

I get most of the TV stations that I want through basic cable service. There are two local TV stations that I receive very well with a simple rabbit ear antenna (came with the TV), so my requirements from a TV antenna are not very high.

I guess the only questions I have regarding the discone antenna are:

1) Are there any issues in regard to wave polarization? Is it true that both TV and FM broadcasts are polarized both vertically and horizontally?

2) How does one match between that about 50 ohms antenna impedance and the cable's 75 ohm impedance?

> FWIW, I put up the Radio Shack crossed dipole antenna at a friend's
> cabin and it took him from getting no FM reception to two stations.
> Okay, not an "FM DX antenna" but consider that he is 40 miles from any
> town of significance, the cabin is in a valley and there are taller
> mountains between him and anything else.

Yes, that is exactly the kind of result I want to achieve. I know there is no magical solution that defies the laws of physics (50% signal loss when placed in the attic, size, etc.) such as the "bogus antennas" described here: http://www.kyes.com/antenna/antennatypes/antennatypes.html

> Good luck,
> Howard

Thank you very much!
Lynn

# 1469. Re: An easy experiment with a coil

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-28 15:56:44 UTC
From: Cecil.A.Moore@ieee.org
Message-ID: <9001ac09.0410280756.57e819a@posting.google.com>
Source record: 87464

Roy Lewallen <w7el@eznec.com> wrote in message
news:<10o19tuqk44fb94@corp.supernews.com>...
> Roy Lewallen wrote:
> > it shouldn't be difficult at
> > all for you to write a couple of simple equations which give the
> > currents at the two ends of the coil.
> >
> > Itot = I+ + I-
> >
> > There's the equation that I have already posted many, many times.
> > Sorry you missed it.
>
> Helloo. . . Anybody home?

Roy, you asked for a couple of simple equations which give the currents
at the two ends of the coil. Here they are again:

Itot(bottom) = I+(bottom) + I-(bottom)

Itot(top) = I+(top) + I-(top)

Exactly what equations do you use when you make your assertions about the
current at each end of a coil? Please be specific.
--
73, Cecil, W5DXP

# 1470. Re: An easy experiment with a coil

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-28 16:31:02 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <a99gd.1652$zx1.1178@newssvr13.news.prodigy.com>
Source record: 87465

H. Adam Stevens, NQ5H wrote:
> "Roy Lewallen" <w7el@eznec.com> wrote in message
> news:10o19tuqk44fb94@corp.supernews.com...
> deletia........
>
>>>Itot = I+ + I-
>>>
>>>There's the equation that I have already posted many, many times.
>>>Sorry you missed it.
>>>. . .
>>
>>Helloo. . . Anybody home?
>>
>>Roy Lewallen, W7EL
>
>
> Now where was that chapter in E&M about "superposition of currents"?
> Can't seem to find it. There is stuff about electromagnetic FIELDS.
> In CecilsWorld wires have an infinite number of conduction electrons.
> Reminds me of BushWorld where there Iraq had nukular weapons and we have
> internets and the Rapture is coming.
> Soon.
> Roy, why do you bother?
> 73
> H.
>
>

Hi H.,
this is interesting in a sick sort of way. You've got Cecil,
a cloud cuckoo land philosopher espousing his inchoate, hand waving
"theory," Yuri, the consummate empiric, who thinks he can understand
nature by experiment alone, and Richard Harrison, who understands the
natural world almost solely through the agency of written authority; and
all of these erstwhile fellows together can't get it right.
We're all marching in lockstep right back to the middle ages.
73,
Tom Donaly, KA6RUH

# 1471. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-28 17:03:39 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <clr8pk$rrs$1@news.service.uci.edu>
Source record: 87466

H. Adam Stevens, NQ5H wrote:
> "Jim Kelley" <jwkelley@uci.edu> wrote in message
> news:clp8gg$cpe$1@news.service.uci.edu...
> deletia....
>
>
>>I have a question. If a loading coil only makes a physically short
>>antenna look like it's an electrical quarter wavelength reactively, why
>>does its position along the radiator make such an apparent difference in
>>performance?
>>
>>73, Jim AC6XG
>>
>
>
> My first reaction is to point out that this was (is?) a question on the
> Extra exam.

I think you may be right.

> Now how can I explain qualitatively why this is?

Start with the answer to the exam question? :-)

> Consider an end-fed wire antenna.
> An electromagnetic wave goes through the conduction electrons down to the
> end and reflects back.
> At 1/4 wavelength, the reflected wave is exactly in phase with the source so
> the load looks minimal and resistive, loss plus radiation. As the antenna
> gets shorter the radiation resistance gets lower and the reflected wave gets
> back to the feed point sooner (becomes capacitive). We need to add
> inductance to slow down the wave so it gets back in phase.

Is that the controversial phase shift?

> We cannot, alas,
> raise the radiation resistance; this is a short antenna. If I place the
> inductor at the feed point all the current must flow through it, maximizing
> loss. If I place it at the top little current flows through it, minimizing
> effectiveness. If I distribute it the antenna's resonance is broader, but at
> what cost? Lower Q. The signal strength is less. So I make the coil as short
> as I can, put it in the middle and it's juuust right.
>
> 73, H. NQ5H

Sounds like you're describing a sort of 'current drop'. Is I^2R loss entirely responsible for this drop? It seems that the phase shift you described earlier would have to cause a change in the standing wave pattern along the radiator. If the loading coil was at the feedpoint, then the maximum current would appear only at the feedpoint. Above the coil, the currents would be out of phase, as you described, because of the shortened radiator, and the maximum available current would not flow along any point on the radiator. Moving the coil higher would allow maximum current to flow along at least the lower portion of the radiator. Loss is certainly a factor, but I can't see how it is the entire explanation for the rather pronounced effect. Hence my question.

73, Jim AC6XG

# 1472. Re: 15m Vertical Matching help

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-28 17:11:00 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <PNqdncAdubO5tRzcRVn-og@comcast.com>
Source record: 87467

"J. Laub" <wd0bka@netscape.net> wrote in message
news:10o1uros5gra442@news.supernews.com...
> Tam/WB2TT wrote:
>> I took a quick look at the ARRL antenna book. Assuming your 3/4 pipe is
>> actually 1" OD, resonance will be off by quite a bit. About 6 - 7 inches
>> too long.
>>
>> Tam
> What page did u find that table on? This may explain why it tunes (with
> transmatch) so much easier on 20 than 15.

I have the 19th edition. There is a graph on page 2 - 5. Kind of rough, but
I got k=.95 for 1" conductor at 21.3 MHz, which makes the real resonance
21.3x.95=20.235. I did not read the text, but they may give an equation
also.
If the SWR is lower at 21.0 than 21.4, the radiator is too long.

Tam

# 1473. Re: 15m Vertical Matching help

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-28 17:14:03 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <OJednV-759tGtRzcRVn-tw@comcast.com>
Source record: 87468

"J. Laub" <wd0bka@netscape.net> wrote in message
news:10o1uvlo5egct9e@news.supernews.com...
> Mogens wrote:
>
>> "J. Laub" <wd0bka@netscape.net> wrote in message
>> news:10o0b9opm3n8q2a@news.supernews.com...
>>
>>>I've constructed a 1/4-wave 15m vertical from 11' of 3/4" copper tubing
>>>(water type). It's being fed with coax.
>>>
>>>Much to my frustration, I am unable to get this thing to resonate w/o
>>>the use of a transmatch. Any tips, ideas or good plans?
>>>
>>
>> Is it ground mounted? And what kind of radial are in use (if any).
>>
>> Does resonate in your terms mean that you have a low swr?
>>
>> Mogens
>>
>>
> Yes, ground mounted and using 4 5-1/2ft radials. Bad word choice in orig
> post-poor SWR is the problem. The other poster mentioned my pipe diameter
> may be an issue. Am looking into that now.

First change the radials to 11 feet, and then see what happens. Your SWR at
resonance should be 1.5:1.

Tam/WB2TT

# 1474. Re: An easy experiment with a coil

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-28 17:36:04 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <clrame$8a$1@news.service.uci.edu>
Source record: 87469

Roy Lewallen wrote:

> Perhaps it's your background as a manager that's in evidence here. I was
> one of the people that "concept" people like you "let" provide the
> equations. I have an apropos Doonesbury cartoon on my office wall:
>
> Pointy-haired boss, pointing to simple graph labeled "Sales": "Sales are
> dropping like a rock."
>
> Pointy-haired boss, pointing to a graph labeled "Future", with single
> upward line: "Our plan is to invent some sort of doohickey that everyone
> wants to buy."
>
> Pointy-haired boss, to Dilbert: "The visionary leadership work is done.
> How long will your part take?"
>
> At review time, the boss judged me on whether the "doohickey" worked
> according to specifications that he and some marketing people came up
> with in "concept" meetings. All I had to do was to understand the
> science, come up with the equations, develop new technology as required,
> create the device, and make it work -- all on a schedule and within a
> budget which were also dictated by the "visionaries". Just grunt work,
> not worthy of the visionary people who were doing more important things.
>
> I don't believe for a minute that the boss really understood how the
> device worked.

I like your Dilbert cartoon, Roy. On the other hand, imagine the boss's
disappointment at seeing the same old doohickey reappear each time with
only a couple new doodads hanging from it. Is it time for a new boss,
or time for a new engineer?

73, Jim AC6XG

# 1475. w7dxx remote base in baghdad soon

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-28 18:03:35 UTC
From: g3zhi@hotmail.com
Message-ID: <4190346a.1574295@news.btinternet.com>
Source record: 87470

w7dxx remote base in baghdad soon

w7dxx plans to install a fully remotely controlled transceiver in
baghdad in
the next month YI9DXX Baghdad

this will be available for any ham in the world who is registered with
w7dxx
to use using voip over the internet for voice qso's

for more information http://www.lamonica.com/

73 Ian G3ZHI

http://www.qsl.net/g3zhi - many ham radio links

http://www.ukirlp.co.uk

G4NJI IRLP 5200 Echolink 135909
Rotherham simplex 145.2875mhz

GB3XN IRLP 5708 Echolink 153126
Langold 430.925 Mhz

Mobile 0783 338 0578

# 1476. Re: "Best Omnidirectional FM antenna"?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-28 18:47:27 UTC
From: w9gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <39bgd.22852$R05.12561@attbi_s53>
Source record: 87371

"Linux Lover" <linuxlover992000@yahoo.com> wrote in message
news:4181110E.209@yahoo.com...
> Howard wrote:
>
>> Forget the discone, it will work - though I can't say any better than the
>> two antennas mentioned - but what you gain in reduced
>> footprint is lost in the discone being taller.
>> Also, you can expect to spend more for the discone.
>
> If I can fit it in my attic *and* eliminate the need to have two antennas
> (TV and FM), I am willing to spend the extra cost (up to $100).
>
> I get most of the TV stations that I want through basic cable service.
> There are two local TV stations that I receive very well with a simple
> rabbit ear antenna (came with the TV), so my requirements from a TV
> antenna are not very high.
>

Lynn -

This really gets to the heart of your design and selection question. From your location you need to determine the bearings 0 to 359 (with North at 0/360 and E at 90 degrees), where the FM (or TV stations) transmitting antennas are. Geography and population density usually "clump" these large transmitting towers in a small area. (Chicago - Sears and Hancock skyscrapers; New York - Empire State Building and Palisades (NJ))

The layout of these transmitting antennas in a 60 mile radius will help you select the ideal antenna pattern for your location. Instead of an omni, you may be able to use a beam, if all of the stations (that you really wish to listen to) are in a 30 degree or less spread.

Greg

# 1477. Re: 15m Vertical Matching help

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-28 18:55:09 UTC
From: w9gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <hgbgd.331182$D%.222147@attbi_s51>
Source record: 87372

"J. Laub" <wd0bka@netscape.net> wrote in message
news:10o0b9opm3n8q2a@news.supernews.com...
> I've constructed a 1/4-wave 15m vertical from 11' of 3/4" copper tubing
> (water type). It's being fed with coax.
>
> Much to my frustration, I am unable to get this thing to resonate w/o the
> use of a transmatch. Any tips, ideas or good plans?
>
> 73's
>
> -=Jon

Jon -

One of the old ARRL Antenna Handbooks (Green cover - circa 1973) had a 15 meter dipole constructed form 2 piece of 1/2 inch 10' electrical conduit and a small coil wound from 1/8" copper or brass tubing (50 ohm coax fed).

The impedance for a vertical will be quite low (less than 50 ohms) what are you using for matching?

15 meters / 4 = 3.75 meters (1/4 wave) ~ 12.3 Feet

Greg
w9gb

# 1478. Re: An easy experiment with a coil

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-28 19:22:37 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <1Gbgd.794228$Gx4.435278@bgtnsc04-news.ops.worldnet.att.net>
Source record: 87373

Cecil,

I decided to take a look at the question you asked below, and I came up with a really simple modeling experiment.

Set up a simple quarter-wave vertical in EZNEC, resonant at 7 MHz. Run the source and current functions and save the data. Now change the frequency to 3.5 MHz and repeat the source and current functions. Do not scale the antenna or change anything else. I believe most people would now view this antenna as one-eighth wave at the new frequency, or perhaps representative of a whip above a loading coil (at 3.5 MHz).

This experiment demonstrates what happens to the "remaining eight feet" when confronted with the conflict between the "need" for 90 degrees and the availability of only 45 degrees.

My computer did not blow up, and I suspect yours will survive as well.

Any number of permutations can be tried. Change the length instead of the frequency, scale up, scale down, and so on. The current always starts at 1.0, and it always goes to 0.0 at the tip. The reactance and driving voltage can be awesome, but the current remained unfazed (or is that unphased?).

This is not a revelation. Antenna books point out that the current in a short antenna decreases in a straight line, not a sine curve, from the feed point to the tip. (E.g. Kraus, 2nd Ed. page 216)

Since your traveling wave model seems to be based on a 90 degree requirement, you may want to consider incorporating this additional information before submitting your new model for publication.

73,
Gene
W4SZ

(The "eight feet" is taken from your message. In this experiment the whip length is quite a bit larger, of course. Rescale the entire experiment if you like.)

Cecil Moore wrote:

>
> Here's an unanswered question: If the loading coil occupies zero
> degrees, how can the remaining eight feet of the antenna occupy
> the entire 90 electrical degrees? Wouldn't the coil have to
> change the frequency for that to happen?

# 1479. Re: An easy experiment with a coil

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-28 20:17:53 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <clrk5s$708$1@news.service.uci.edu>
Source record: 87374

Gene Fuller wrote:

> Antenna books point out that the current in a
> short antenna decreases in a straight line, not a sine curve, from the
> feed point to the tip. (E.g. Kraus, 2nd Ed. page 216)

Isn't that simply because the slope of a sine wave near the zero
crossing closely approximates that of a straight line?

73, Jim AC6XG

# 1480. Re: w7dxx remote base in baghdad soon

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-28 20:58:44 UTC
From: k3bu@aol.comNoUsama
Message-ID: <20041028165844.27265.00003261@mb-m03.aol.com>
Source record: 87375

>
>w7dxx plans to install a fully remotely controlled transceiver in
>baghdad in
>the next month YI9DXX Baghdad
>
>this will be available for any ham in the world who is registered with
>w7dxx
>to use using voip over the internet for voice qso's
>
>for more information http://www.lamonica.com/
>
>
>73 Ian G3ZHI
>

That's it! We don't need no more no stinkin hams, let computers talk to each other. Now if computer can have a sex for me, I wouldn't have to bother with that dreary task, what the hell are we living for?
Stupid is what stupid does!

73 Yuri, K3BU.us
enjoying radio, sex, steaks, cigars, old cars by MYSELF not through stinkin' computer.

# 1481. Re: An easy experiment with a coil

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-28 21:02:48 UTC
From: k3bu@aol.comNoUsama
Message-ID: <20041028170248.27265.00003262@mb-m03.aol.com>
Source record: 87376

>
>Isn't that simply because the slope of a sine wave near the zero
>crossing closely approximates that of a straight line?
>
>73, Jim AC6XG
>
>

Looks like it, back in those days it was simpler to draw the straight line approximating end of sine wave curve than bother to draw it precisly. Close enough for unbelievers :-)

Yuri, K3BU.us

## 1482. Re: w7dxx remote base in baghdad soon

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-28 21:07:52 UTC
From: k3bu@aol.comNoUsama
Message-ID: <20041028170752.27265.00003263@mb-m03.aol.com>
Source record: 87377

... oh, and go tell all the Marathon and other runners that they are stupid running, when they could drive a car.

How would YI9DXX QSL the contacts? Congratulation jerk, you have worked computer in Iraq operated by bigger jerk in (inset your country) over internet.

Get a life!

Yuri

# 1483. One band tuner?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-28 21:12:20 UTC
From: Ken <cprstn54zz@att.net>
Message-ID: <ihn2o0l7305kgkj1c7upf6g126iu8klgt7@4ax.com>
Source record: 87378

I just acquired a Wilson 1000 base-loaded mag-mount antenna. The whip is 62" long and gives lowest SWR (1.2) at CB channel 1 (26.965 mHz). So, to be a good CB antenna, the whip needs to be shortened to give lowest SWR at 27.200 mHz -- roughly the middle of the CB band.

I want to also use this antenna for 10M. I don't want to bother with a tuner. I originally was going to buy a second, even shorter, whip for 10M and switch the whips for th eband I wanted at the moment. Then I thought that maybe I could throw together a simple RLC circuit to use at the radio for 10M.

How can I determine what I need? I think I have more than enough sophisticated equipment, but not the practical experience to use it.

In particular, I just built the AmQRP Antenna Analyzer and can measure the SWR, impedance and reactance at any frequency. I have a dip meter. I have manual tuners that can bring the SWR down to 1.0 in the middle of the 10M band.

How do I use these to design a simple RLC circuit that does what the manual tuner does at the middle of 10M?

Ken KC2JDY

Ken
(to reply via email
remove "zz" from address)

# 1484. half antenna better than full??? How is this possible?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-28 21:23:30 UTC
From: danibe@my-deja.com
Message-ID: <b73f7787.0410281323.59d83b3e@posting.google.com>
Source record: 87379

I just finished re-directing my TV antenna in the attic to some favorite stations and boy it looks fabulous. :-)

However, I came across a very interesting phenomenon to which I have no explanation: if I install the two "Top Wing Boom" elements that come with the antenna, I get significantly worse reception. If I removed them (as the situation is now), I get close to perfect reception.

Is there an explanation to this?

The antenna is a Radio Shack VU-90XR VHF/UHF/ FM Antenna 150-2152.
Overview: http://tinyurl.com/52tjr
Manual: http://tinyurl.com/6yyke

I am just curious, that's all. :-)

Daniel

# 1485. Re: half antenna better than full??? How is this possible?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-28 21:37:53 UTC
From: Howard <mensch90249@yahoo.com>
Message-ID: <g5p2o01r771c70rqaa37o8kj9n929sujj0@4ax.com>
Source record: 87380

On 28 Oct 2004 14:23:30 -0700, danibe@my-deja.com (Daniel) wrote:

>I just finished re-directing my TV antenna in the attic to some
>favorite stations and boy it looks fabulous. :-)
>
>However, I came across a very interesting phenomenon to which I have
>no explanation: if I install the two "Top Wing Boom" elements that
>come with the antenna, I get significantly worse reception. If I
>removed them (as the situation is now), I get close to perfect
>reception.
>
>Is there an explanation to this?
>
>The antenna is a Radio Shack VU-90XR VHF/UHF/ FM Antenna 150-2152.
>Overview: http://tinyurl.com/52tjr
>Manual: http://tinyurl.com/6yyke
>
>I am just curious, that's all. :-)
>
>Daniel
Daniel,
The "wing boom" elements form a corner reflector for the UHF section
of the antenna, in essence they make it more directional. Do you
notice this on UHF channels or VHF? If on UHF it is an indication
that the transmitter is not along the same azimuth the antenna is
pointing. Beyond that, it could be one, or a combination of, a few
different things. I know, not much help but at least you now know the
function those elements serve.
Howard

# 1486. Re: Gain per unit length of boom

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-28 21:39:46 UTC
From: richardharrison@webtv.net
Message-ID: <18916-41816722-814@storefull-3258.bay.webtv.net>
Source record: 87381

Art Unwin wrote:
"My ARRL books go back a decade or more and the graphs showing the gain per boom length has several curves based on different measurements e.t.c."

I haven`t encountered similar curves based on NEC, but I`ve found thye old ARRL curves on page 163 of my 1970 edition of the "A.R.R.L. Antenna Book" (cover price=$2.50).

Variation between curves from 3 different groups of observers are within "1 S-unit" (6 dB). Gain ranges from a minimum of about 7 dB for a Yagi with a 1/2-wave boom length (pessimistic) to a 19 dB gain for a 6.5-wavelength boom length (optimistic).

The optimistic curve is labeled "Greenblum", and seems too good to be true. The other two curves have flattened out as the number of wavelengths increases. The Greenblum curve is almost a straight line. As Kraus showed in his solution to the Deutsche Welle antenna gain problem, you often need to double the total number of elements to get a 3 dB antenna gain.

Best regards, Richard Harrison, KB5WZI

# 1487. Re: One band tuner?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-28 21:57:56 UTC
From: jgboyles@aol.com
Message-ID: <20041028175756.17257.00002039@mb-m25.aol.com>
Source record: 87382

>How do I use these to design a simple RLC circuit that does what the
>manual tuner does at the middle of 10M?

Hi Ken, If you have the equipment to determine the impedance of the antenna at the middle of the 10M band, there are a number of ways to match it to 50 ohms.

First of all, you don't want an RLC circuit. Leave out the R cause that is power lost as heat. You want everything to be radiated. An "L" network consisting of an inductor and capacitor will match anything to anything.
What I usually do is determine the feedpoint impedance of the antenna at the frequency of interest, and use the Smith Chart to determine the configuration and values of an "L" network to get a match.
If you are not comfortable with the Chart, there are some programs on the net that will design the network for you. Or, if you give me the complex impedance and frequency, I will be glad to provide a network.
73 Gary N4AST

# 1488. Re: An easy experiment with a coil

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-28 22:24:42 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41816fbc$1_2@127.0.0.1>
Source record: 87383

Tom Donaly wrote:
> We're all marching in lockstep right back to the middle ages.

Walter Johnson didn't live in the middle ages, Tom. I would be
careful about disagreeing with him.
--
73, Cecil http://www.qsl.net/w5dxp

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http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

# 1489. Re: The "TRICK" to TV 'type' Coax Cable [Shielded] SWL Loop Antennas {RHF}

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-28 22:31:10 UTC
From: rhf-newsgroups@pacbell.net
Message-ID: <ff3145e8.0410281431.1075ba@posting.google.com>
Source record: 87384
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

GG,

Interesting Information, Thank You for the Repost.

Somewhere, I remember reading that a Coax Cable [Shielded] Loop
Antenna is simply an End-Fed Dipole that is Terminated on Itself.
The fact that it is a Dipole (Electrically Balanced) and the Loop
Shape (Physically Balanced) give it it's inherent properties.

~ RHF
.
.
= = = gene@csl.uiuc.edu (Gene Gardner) wrote in message
= = = news:<clqv4o$duv$1@news.ks.uiuc.edu>...
> This seems like a good place to insert a discussion about a
> "shielded loop" being a myth for anything except for deeper
> nulls in the directivity pattern: (these were posted about
> 18 months ago).
> ------------------------------------------------------------
> ------------------------------------------------------------
>
>
>
> From: Roy Lewallen <w7el@eznec.com>
> Date: Fri, 21 Mar 2003 11:30:17 -0800
> Newsgroups: sci.electronics.design,alt.engineering.electrical,rec.radio.amateur.antenna
> Subject: Re: Loop Antenna questions
>
> It's fairly easy to see that what Tom wrote (the first paragraph of
> quoted material below) is true. "Shielding" a loop simply moves the
> feedpoint to the gap, and the outside of the "shield" becomes the loop.
> It's no more or less immune to electric fields than any other loop. What
> "shielding" does (and all it does) is to increase rejection of common
> mode excitation, improving loop balance and the resulting pattern null
> in practical installations. The sensitivity of a "shielded" loop to both
> electric and magnetic fields is exactly the same as for an "unshielded"
> loop.
>
> The myth that "shielding" a loop somehow rejects the electric field
> without affecting the magnetic field is one that's been kicking around
> the amateur community for decades. I don't suppose it'll ever die.
>
> Another thing that seems to be unknown or overlooked is that a small

> (so-called "magnetic") loop antenna is actually more sensitive to an
> electric field and less sensitive to a magnetic field than a short
> ("electric") dipole, at all distances from the antenna unless the
> radiation source is very close -- within less than a wavelength.
>
> Roy Lewallen, W7EL
>
> JLB wrote:
> >>The external "metal toroid" is then the antenna, for it is on the
> >>outside of that "toroid" that antenna currents must exist, and not
> >>inside it. The gap is then the feedpoint, to which the internal wire
> >>couples and then acts as a simple feedline. To best reject response
> >>to electric fields, the gap must be properly positioned...
> >>
> >
> >
> > No, the gap is usually opposite the feed point and the sheild is grounded.
> > It shields the loop from electric fields but it still responds to magnetic
> > fields. This is common practice and the idea has been around for many
> > decades. From personal experience I can say that it makes a tremendous
> > difference in the sensitivity pattern of the loop, even when extremely close
> > to other conductors (including AC house wiring).
> >
> >
> >>References available on request.
> >>
> >
> > Ok, what are they?
> >
> > Jim
> > N8EE
> >
> >
> >
>
>
> From: Roy Lewallen <w7el@eznec.com>
> Date: Fri, 21 Mar 2003 22:52:21 -0800
> Newsgroups: sci.electronics.design,alt.engineering.electrical,rec.radio.amateur.antenna
> Subject: Re: Loop Antenna questions
>
> After some reflection, I see that I can't really justify the statement I
> made. Thanks for questioning it.
>
> Let me explain what I do know. The following discussion assumes that all
> antennas are lossless, to eliminate a factor that would obscure the
> subject under discussion.
>
> If you put 100 watts into a very short dipole, the ratio of the E field
> it produces to the H field it produces is called the wave impedance. At

> a distance of considerably less than a wavelength, or greater, this
> ratio is about 377 ohms (in air or free space), and E and H are in
> phase. The same thing is true for a very small loop antenna, or any
> other small antenna. If you get far enough away, the E/H ratio is the
> same for any kind of antenna, although you might have to get a farther
> from an antenna that's large in terms of wavelength. Invoking the
> reciprocity principle, you find that the relative response of a small
> loop to E and H fields is the same as for a small dipole if the field
> originates some distance from the antenna. The so-called "magnetic" loop
> responds just the same as any other antenna to fields originating beyond
> a wavelength or so from the antenna.
>
> What's interesting is the relative strength of radiated E and H fields
> close to the antenna. My overstatement was the implication that the
> ratio of E to H transmitted fields represent relative "sensitivity" to E
> and H fields when receiving. Contrary to what the CFA and EH proponents
> claim, it's not possible to generate E and H fields independently. And
> contrary to what people who misunderstand "shielded" loops say, it's not
> possible to isolate E and H fields. (It is possible to change the
> impedance of a wave -- that is, the E/H ratio -- in a region, but it
> always reverts back to the impedance of the medium -- 377 ohms for free
> space -- within a pretty small distance of the disturbance.) So
> sensitivity to an E or H field is somewhat problematic, since you can't
> create either one in isolation for a test. Consequently, I'll just
> discuss the E and H fields that the antennas produce when transmitting.
> I believe that an antenna with high transmit E/H ratio will be
> relatively insensitive to a wave with low E/H ratio (which would have to
> be created nearby), and vice-versa. But I can't quantify the
> relationship. I only know it involves the concept of transfer impedance,
> and I haven't given the topic enough study to say more about it. It is
> discussed in a number of texts, for those who are interested.
>
> What I've done is look at the E/H ratio radiated by a small loop and a
> small dipole at various distances, in the direction of the maximum far
> field radiation (in the plane of the loop and broadside to the dipole).
>
> The following analysis was done with EZNEC/4 using its double precision
> NEC-4 calculating engine. This was necessary because of problems NEC
> codes have with very small loops, and the size of loop I chose was too
> small for analysis with NEC-2. However, it could probably be done with
> MININEC, or it could be done with an NEC-2 based program like the EZNEC
> demo if the loop is made a bit larger. It's vital to set the loss to
> zero so that a negative feed point impedance isn't concealed by positive
> loss resistance. I've gotten email from a person who was skeptical of
> the results and did the calculations analytically. He came to the same
> conclusion, which gives me added confidence in the results. The
> following calculations were done at 3 MHz (100 meter wavelength).
>
> Here's what happens. A small loop is sometimes called a "low impedance"
> antenna because of the low E/H ratio close to the antenna. This might be

> adequate justification for calling it a "magnetic" antenna as amateurs
> have taken to doing, but the term unfortunately conveys the mistaken
> impression that the antenna somehow responds only to or more strongly to
> magnetic fields coming far from the antenna, which isn't true. But very
> close to the antenna, the E/H ratio is indeed lower than the 377 ohm
> value this ratio always has far from the antenna. In exactly
> complementary fashion, a small dipole is a "high impedance" antenna,
> having an E/H ratio higher than 377 ohms very close to the antenna. Here
> are the values of the magnitude of E/H for a 2 meter (1/50 wavelength)
> circumference octagonal loop and a 2 meter long dipole at 3 MHz. The
> distance is measured from the center of the loop or dipole, and the
> direction is in the plane of the loop or broadside to the dipole.
>
> Distance (m) E/H (ohms)
> Dipole Loop
> 2 2630 63.9
> 4 1360 110
> 6 862 169
> 8 597 241
> 10 440 326
> 12 345 414
> 14 291 490
> 16 265 538
> 18 257 555
> 20 258 552
> 22 264 538
> 24 273 522
> 26 281 506
> 28 290 491
> 30 297 478
> 50 342 415
> 100 367 386
>
> The curious thing is that, while the dipole field impedance is high
> close to the dipole, and low close to the loop, in both cases it
> overshoots 377 ohms by a considerable amount, reaching a peak (lowest Z
> for the dipole and highest for the loop) at about 18 meters, then
> asymptotically approaches 377 ohms from the "wrong side" beyond that. At
> all distances of 12 meters (about 1/8 wavelength) and beyond, the E/H
> ratio of the loop is actually higher than that of the dipole! That was
> the basis for my original statement. Whatever might be said about the
> "sensitivity" of a "magnetic" loop to E and H fields, it certainly can't
> be said to be more sensitive to H fields, or less sensitive to E fields,
> than a small dipole, at any distance greater than about 1/8 wavelength.
>
> The exact sizes of the loop and dipole aren't important. The near fields
> at these distances are essentially equal for all small dipoles and for
> all small loops for a given input power, provided that they're much
> smaller than a wavelength in any dimension.
>

> Roy Lewallen, W7EL
>
> Reg Edwards wrote:
> > Roy says -
> > >
> > >
> > >>- - - - a small
> > >>(so-called "magnetic") loop antenna is actually more sensitive to an
> > >>electric field and less sensitive to a magnetic field than a short
> > >>("electric") dipole - - - -
> > >
> > >
> > > ----------
> > >
> > > Roy,
> > >
> > > What are your units of "sensitivity"?
> > >
> > > How are things to be measured (even hypothetically) and compared?
> > >
> > > In any case, the statement is meaningless unless loop diameter and dipole
> > > length are incorporated.
> > >
> > > Explanation please.
> > >
> > > A simple learned reference will not be of much use since 99.9 percent of
> > > readers will have no chance of ever getting their hands on it.
> > >
> > > Yours, Reg, G4FGQ
> > >
> > >
> > >
> > >
> > >
> >
> >
> > From: Roy Lewallen <w7el@eznec.com>
> > Date: Sat, 22 Mar 2003 13:15:46 -0800
> > Newsgroups: sci.electronics.design,alt.engineering.electrical,rec.radio.amateur.antenna
> > Subject: Re: Loop Antenna questions
> >
> > Richard Clark wrote:
> >
> > > If anything, your work contributes to the notion of these "notable"
> > > differences rather than eliminates them. You forcefully detail how
> > > different the short dipole is from a small loop to exactly the same
> > > degree as offered by CFA/EH proponents as that being its boon - even
> > > if they invert the rationale of what constitutes the sensitivity.
> > > This is to say, that if they are entirely wrong about a magnetic
> > > antenna being sensitive to the magnetic field (something you reject

> > and offer compelling numbers as evidence); they do have a point about
> > the magnitude of difference (they are not entirely wedded to the
> > principle as they are the effect - if in fact that effect is not
> > another figment of wish fulfillment).
>
> My understanding of the CFA/EH antenna is undeniably vague, but I think
> it goes something like this: The E and H fields are created
> independently, one by a capacitor-like part of the antenna and the other
> by a coil-like part of the antenna. This, as I said and as many others
> have pointed out, can't be done. Creation of a time-varying E field
> always results in a time-varying H field, and vice-versa. The E and H
> fields thus "independently" created are done so in the ratio of 377
> ohms. This being the ratio of the the components in the far field, the
> direct synthesis results in the lack of a near field. This lack of near
> field is credited somehow with the magical properties of these antennas
> (high efficiency despite small size) by mechanisms that have never been
> clear to me. At any rate, these wonderful properties have never been
> demonstrated with either believable measurements or modeling despite
> more than a decade of hype, so it sure looks like they're fiction also.
> The EH antenna further distinguishes itself by requiring a magic
> inductor whose current at one terminal is shifted in phase 90 degrees
> from the current at the other terminal, adding yet another layer of
> impossibility.
>
> If I've misinterpreted the explanations for how these things are
> supposed to work, I apologize -- it wasn't intentional.
>
> > The argument about being less sensitive to neighborhood noise for
> > magnetic antennas, small loops, or loops in general, seems to be
> > justified by your data supporting very different E/H ratios out to
> > about 10M, which for me is easily the most disruptive region to any
> > antenna in a noisy neighborhood and makes that case in some sense.
>
> It might. Remember, though, that this is constant in terms of
> wavelength, so the range drops by a factor of two at twice the
> frequency. (But on the other hand, the range will be greater at 160
> meters.) Also, note that the difference isn't very great even at a
> distance of 10 meters. You have to get very close indeed to see a truly
> major difference. I suspect that major differences in interference
> rejection are as likely to be due to differences in balance (causing
> better or worse nulls) or polarization.
>
> > It seems to me that the difference applies only to situations where
> > that first 10M is significant, and to what degree coupling of
> > interference within that region becomes meaningful.
>
> Yes, that's the conclusion I reach.
>
> Roy Lewallen, W7EL

# 1490. Re: An easy experiment with a coil

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-28 22:38:25 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <418172f3$1_5@127.0.0.1>
Source record: 87385

Gene Fuller wrote:
> This experiment demonstrates what happens to the "remaining eight feet"
> when confronted with the conflict between the "need" for 90 degrees and
> the availability of only 45 degrees.

Once again, you misunderstand what I am saying which is: For an unloaded vertical antenna to have a purely resistive feedpoint impedance, i.e. resonant, it must be at least 1/4WL long fed against a counterpoise. A 45 degree unloaded antenna does NOT have a purely resistive feedpoint impedance, i.e. it is NOT resonant. We are discussing only resonant antennas here. A properly loaded short mobile antenna does indeed have a purely resistive feedpoint impedance, i.e. at resonance, it must exhibit something in the ballpark of 90 degrees of antenna. Hint: There is 90 degrees between the purely resistive current maximum point and the open end of the antenna. The coil MUST occupy some of that 90 degrees.

I'm not saying the coil occupies every degree not occupied by the wires but it does NOT occupy zero degrees. The argument is whether it occupies zero degrees or not.

Please stop misunderstanding what I am saying. :-)

> My computer did not blow up, and I suspect yours will survive as well.

Since you misunderstood, the rest of your posting is proceeding under false premises.
--
73, Cecil http://www.qsl.net/w5dxp

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# 1491. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-28 22:50:53 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <418175df$1_4@127.0.0.1>
Source record: 87386

Jim Kelley wrote:
> It seems that the phase shift you
> described earlier would have to cause a change in the standing wave
> pattern along the radiator.

It does and that is why it is so difficult to write an equation for
it. There are reflections in both directions at the top and bottom of
the coil in addition to the 100% reflection at the tip of the antenna.
My solution is to get Reg to write a new program. :-)

> If the loading coil was at the feedpoint,
> then the maximum current would appear only at the feedpoint.

I hesitate to introduce secondary effects before most have understood
the primary effects, but that is not a true statement. Some percentage
of what the other side is saying is true. However, the other side
considers those effects to be supreme when they are only secondary -
but they are NOT negligible secondary effects. The maximum current
in the base-loaded system does not appear at the feedpoint. The
maximum current in a base-loaded system appears inside the coil and
that current is of greater magnitude than the feedpoint current. I'm
sorry to muddy the waters even farther with that tidbit.
--
73, Cecil http://www.qsl.net/w5dxp

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# 1492. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-28 23:02:50 UTC
From: "H. Adam Stevens, NQ5H" <NQ5H@ARRL.net>
Message-ID: <10o2uo6slgeo843@corp.supernews.com>
Source record: 87387

"Jim Kelley" <jwkelley@nospam.edu> wrote in message
news:clr8pk$rrs$1@news.service.uci.edu...
>
>
> H. Adam Stevens, NQ5H wrote:
> > "Jim Kelley" <jwkelley@uci.edu> wrote in message
> > news:clp8gg$cpe$1@news.service.uci.edu...
> > deletia....
> >
> >
> >>I have a question. If a loading coil only makes a physically short
> >>antenna look like it's an electrical quarter wavelength reactively, why
> >>does its position along the radiator make such an apparent difference in
> >>performance?
> >>
> >>73, Jim AC6XG
> >>
> >
> >
> > My first reaction is to point out that this was (is?) a question on the
> > Extra exam.
>
> I think you may be right.
>
> > Now how can I explain qualitatively why this is?
>
> Start with the answer to the exam question? :-)
>
> > Consider an end-fed wire antenna.
> > An electromagnetic wave goes through the conduction electrons down to
the
> > end and reflects back.
> > At 1/4 wavelength, the reflected wave is exactly in phase with the
source so
> > the load looks minimal and resistive, loss plus radiation. As the
antenna
> > gets shorter the radiation resistance gets lower and the reflected wave
gets
> > back to the feed point sooner (becomes capacitive). We need to add
> > inductance to slow down the wave so it gets back in phase.
>
> Is that the controversial phase shift?
>
> > We cannot, alas,

> > raise the radiation resistance; this is a short antenna. If I place the
> > inductor at the feed point all the current must flow through it,
maximizing
> > loss. If I place it at the top little current flows through it,
minimizing
> > effectiveness. If I distribute it the antenna's resonance is broader,
but at
> > what cost? Lower Q. The signal strength is less. So I make the coil as
short
> > as I can, put it in the middle and it's juuust right.
> >
> > 73, H. NQ5H
>
> Sounds like you're describing a sort of 'current drop'. Is I^2R loss
> entirely responsible for this drop? It seems that the phase shift you
> described earlier would have to cause a change in the standing wave
> pattern along the radiator. If the loading coil was at the feedpoint,
> then the maximum current would appear only at the feedpoint. Above the
> coil, the currents would be out of phase, as you described, because of
> the shortened radiator, and the maximum available current would not flow
> along any point on the radiator. Moving the coil higher would allow
> maximum current to flow along at least the lower portion of the
> radiator. Loss is certainly a factor, but I can't see how it is the
> entire explanation for the rather pronounced effect. Hence my question.
>
> 73, Jim AC6XG
>
Hi Jim
Clearly an entire explanation would require a rigorous solution to Maxwell's
equations, but you state it better than I did.
The current below the loading coil is as if the antenna were full length,
max power radiated; the voltage above the loading coil is as if the antenna
were full length. And you're right, moving the coil away from the current
max (feed point) reduces I^2R losses in the coil. Are there E^2/R losses in
the coil if we mount it at the top?
Looks like if we make the boundary conditions at the ends of the antenna as
if it were full-length it works best.
Remember the boundary conditions; the current is max at the feedpoint and
zero at the end (can't go anywhere).
The empirical fact is a lumped L in the center of the antenna works best and
one can "sort of" intuitively see why placing the coil at either end has
problems. Hence I use a 4 foot screwdriver and a 4 foot whip. The antenna at
resonance on 40 and 80 is about 20 ohms which I match with a toroidal
autoformer. Then 2 feet of coax to the TS480HX.
73, H.
NQ5H

# 1493. Re: An easy experiment with a coil

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-28 23:08:45 UTC
From: "H. Adam Stevens, NQ5H" <NQ5H@ARRL.net>
Message-ID: <10o2v1lsap4bf6e@corp.supernews.com>
Source record: 87388

"Tom Donaly" <dtdonaly@sbcglobal.net> wrote in message
news:a99gd.1652$zx1.1178@newssvr13.news.prodigy.com...
snip
> > Roy, why do you bother?
> > 73
> > H.
> >
> >
>
> Hi H.,
> this is interesting in a sick sort of way. You've got Cecil,
> a cloud cuckoo land philosopher espousing his inchoate, hand waving
> "theory," Yuri, the consummate empiric, who thinks he can understand
> nature by experiment alone, and Richard Harrison, who understands the
> natural world almost solely through the agency of written authority; and
> all of these erstwhile fellows together can't get it right.
> We're all marching in lockstep right back to the middle ages.
> 73,
> Tom Donaly, KA6RUH
Not me, baby. I'm going kicking and screaming.
73, H.

BTW
I took graduate E&M out of J D Jackson's "Classical Electrodynamics" in
1980.
The second semester was taught by one of the two profs I presently work for
at U Texas Physics.
My main boss is an old friend of Dave Jackson and one of my colleagues is a
student of Kraus.

## 1494. Re: An easy experiment with a coil

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-28 23:09:37 UTC
From: "H. Adam Stevens, NQ5H" <NQ5H@ARRL.net>
Message-ID: <10o2v39bu14pg9d@corp.supernews.com>
Source record: 87389

"Jim Kelley" <jwkelley@nospam.edu> wrote in message
news:clrk5s$708$1@news.service.uci.edu...
> Gene Fuller wrote:
>
> > Antenna books point out that the current in a
> > short antenna decreases in a straight line, not a sine curve, from the
> > feed point to the tip. (E.g. Kraus, 2nd Ed. page 216)
>
> Isn't that simply because the slope of a sine wave near the zero
> crossing closely approximates that of a straight line?
>
> 73, Jim AC6XG
>

yup

# 1495. Re: An easy experiment with a coil

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-28 23:10:31 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <H%egd.36257$QJ3.24443@newssvr21.news.prodigy.com>
Source record: 87390

Jim Kelley wrote:
> Gene Fuller wrote:
>
>> Antenna books point out that the current in a short antenna decreases
>> in a straight line, not a sine curve, from the feed point to the tip.
>> (E.g. Kraus, 2nd Ed. page 216)
>
>
> Isn't that simply because the slope of a sine wave near the zero
> crossing closely approximates that of a straight line?
>
> 73, Jim AC6XG
>

Actually, no one really knows whether it's really a sine curve
or not because no one has ever been able to solve the integral
equation that would give an exact answer. The sine approximation
works o.k. because the far field is relatively insensitive to
changes in the shape of the current curve back at the antenna.
The best thing to do is to approximate the curve with a
moment method program on a computer. That's what the moment
method does best.
73,
Tom Donaly, KA6RUH

# 1496. Re: Gain per unit length of boom

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-29 00:32:12 UTC
From: "aunwin@insightbb.com"
Message-ID: <fcggd.265159$wV.97446@attbi_s54>
Source record: 87391

Richard, the more I study the boom length question the more I feel that the
ARRL
should drop the three curve gain/boom length graph. First there has to be a
condition that all elements are on the same plane. The other condition must
be
that all the elements are straight and parallel. The more I study the two
element
antenna I find that changing the added element height relative to one
another ,
even if a small distance , can change the gain.
I understand that there are "Landorfer ?"curved elements that can also
increase the gain.
I also proved that by NEC.
If one allows elements numbers to be added to increase ad hoc then NEC shows
that a quasi dish shape will occur
where the focus can stay equal to .1 wavelength and where gain increases to
over 14 dbi.
If one takes a further step by "shaping "the elements whether it be the feed
element or the
reflective elements then not only does the beam width narrow with increased
gain but the
TAO decreases about one degree which is a huge advantage when using small
garden type antennas.
Based on the above findings it would be impossible to generate a NEC curve
that would make sense
unless the above two conditions are set in place for the average amateur.
The latter would give
some protection against fraudulent vendors and supply a datum curve that is
meaningful to all.
I do believe that this posting should put an end to this thread and I thank
you again for your input.
Regards
Art

"Richard Harrison" <richardharrison@webtv.net> wrote in message
news:18916-41816722-814@storefull-3258.bay.webtv.net...
> Art Unwin wrote:
> "My ARRL books go back a decade or more and the graphs showing the gain
> per boom length has several curves based on different measurements
> e.t.c."
>
> I haven`t encountered similar curves based on NEC, but I`ve found thye
> old ARRL curves on page 163 of my 1970 edition of the "A.R.R.L. Antenna
> Book" (cover price=$2.50).

>
> Variation between curves from 3 different groups of observers are within
> "1 S-unit" (6 dB). Gain ranges from a minimum of about 7 dB for a Yagi
> with a 1/2-wave boom length (pessimistic) to a 19 dB gain for a
> 6.5-wavelength boom length (optimistic).
>
> The optimistic curve is labeled "Greenblum", and seems too good to be
> true. The other two curves have flattened out as the number of
> wavelengths increases. The Greenblum curve is almost a straight line. As
> Kraus showed in his solution to the Deutsche Welle antenna gain problem,
> you often need to double the total number of elements to get a 3 dB
> antenna gain.
>
> Best regards, Richard Harrison, KB5WZI
>

# 1497. New Smith Chart Program - "SmartSmith"

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-29 02:31:10 UTC
From: w9dmk@crosslink.net
Message-ID: <4181a8d7.50504291@news.crosslink.net>
Source record: 87392

SmartSmith for Windows is a Smith Chart program designed to provide a convenient tool for designing transmission line matching sections. It can also design matching sections for any electrical circuit in which it is important to be able to visualize the progress being made while configuring a particular matching section circuit element.

The program provides for data entry in the form of a complex impedance in "a + jb" (Cartesian) form that is to be matched to a purely resistive characteristic impedance as would typically be encountered in transmission lines. The primary limitation of such an approach for anything other than transmission lines is that the characteristic impedance of the line to which we desire a match is assumed to be purely resistive (no imaginary component).

SmartSmith for Windows provides the user with a suite of nine different impedance transforming elements that can be used in the program to implement an impedance match. These nine individually configurable elements are:

- Series Resistance (ohms)
- Shunt Conductance (milli-mhos)
- Series Capacitance (ohms of reactance and pF)
- Shunt Capacitive Susceptance (milli-Siemens )
- Series Inductance (ohms of reactance and uH)
- Shunt Inductive Susceptance (milli-Siemens)
- Open Stub (0 - 90 degrees, any Zo)
- Shorted Stub (90 - 0 degrees, any Zo)
- Series Trans. Line (-180 to 0 to +180 degrees, any Zo)

SmartSmith has many advantages over the paper Smith Chart. Plotting impedance points on a Smith Chart can be very tedious. Each time a new value of a design element is to be evaluated, the designer must generate a new value of reactance in ohms for that element and must then calculate a new value for the net impedance seen looking into the circuit with this new value of matching section in place. The designer then takes those new values of the real and imaginary parts, normalizes those values and locates the correct coordinates on the Smith Chart and draws a new point on the chart.

With SmartSmith that process is reduced to clicking the mouse on the spin control to change the value of that design element and see the new point being plotted instantaneously. SmartSmith also continuously shows the complex values of normalized admittance and impedance as the points are plotted.

In order to progress through the design steps, as a design element is completed, the designer presses the ?Keep and Continue? button in order to take the latest value of impedance and save that as the new Load impedance, leaving the plotted points on the Smith Chart. He then picks the next matching section type and begins configuring that element to continue the design, as necessary. At any point, the designer can use the ?Discard and Start Over? button to reset the system to the last ?Keep and Continue? values and select a different type matching section.

The most important feature of SmartSmith is its Wizard. Having entered the Load impedance into the program, the inexperienced designer may not have any idea where to begin. By pressing the ?What Would the Wizard Advise? button, the user is taken through a set of simple steps to transform that impedance to 1 + j0, normalized, and those steps have been automatically chosen based on the region of the Smith Chart in which the Load impedance is located.

Download your free copy of SmartSmith version 1.1 using the following link (slightly larger than 2 MB):

http://www.qsl.net/w9dmk/SWDownloads/SmartSmith11.zip

Or, visit my Web site and peruse all of the free software at:

http://www.qsl.net/w9dmk

Bob, W9DMK, Dahlgren, VA
http://www.qsl.net/w9dmk

# 1498. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-29 02:58:15 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <4181afdd$1_5@127.0.0.1>
Source record: 87393

H. Adam Stevens, NQ5H wrote:
> The current below the loading coil is as if the antenna were full length,
> max power radiated; the voltage above the loading coil is as if the antenna
> were full length.

That's semi-close but not entirely true. As Tom and Roy say, the coil indeed does distort the current away from the cosine pattern common in 1/4WL wire antennas. It just doesn't distort the current as much as they say. But the current at the top of the coil is a greater magnitude than it would be if your above statement were true. In one case, it is 66% higher than in a wire antenna.

The current at the top of the coil is greater than it would be for the same stinger mounted on a physical 1/4WL antenna but it is not equal to the current at the bottom of the coil. The coil probably causes a larger phase angle between the voltage and current than exists in a wire antenna. If theta is small, V*I*cos(theta) can be fixed while V and I become larger than they are in a wire antenna. There's a lot happening around that coil.

> Remember the boundary conditions; the current is max at the feedpoint and
> zero at the end (can't go anywhere).

Sorry, the current is not max at the feedpoint. There is a current maximum point located inside the coil that is a greater magnitude than the feedpoint current. If we say there is 90 degrees from current max inside the coil to the tip of the antenna, a center-loaded mobile antenna is longer than 90 degrees. One in particular, calculates out to be 110 degrees long.

The coil causes an impedance discontinuity at each end in the standing-wave antenna. It is somewhat like the following where the 10k ohm feedline represents the coil with a Z0=SQRT(L/C):

---600 ohm feedline---+---10k ohm feedline---+---600 ohm feedline---open

One can see that there would be reflections in both directions at the '+' points. That's why there will probably never be an equation to represent a mobile antenna.

Here's the key. (Vfor+Vref) must be in phase with (Ifor+Iref) at the feedpoint for the feedpoint impedance to be purely resistive. But Vfor doesn't necessarily have to be in phase with Ifor for that to happen. Neither does Vref necessarily have to be in phase with Iref for that to happen. The coil has a different phase effect on voltage than it does on current and the natural Z0 of a vertical antenna is not fixed since every point on the antenna is a different distance from ground. It's probably impossible to quantify using equations.
--

73, Cecil http://www.qsl.net/w5dxp

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# 1499. Re: New Smith Chart Program - "SmartSmith"

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-29 03:01:42 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <kec3o094karj5vcak3jdommf7i9i6tdlnh@4ax.com>
Source record: 87394

On Fri, 29 Oct 2004 02:31:10 GMT, w9dmk@crosslink.net (Robert Lay
W9DMK) wrote:

>Download your free copy of SmartSmith version 1.1 using the following
>link (slightly larger than 2 MB):
>
>http://www.qsl.net/w9dmk/SWDownloads/SmartSmith11.zip
>
>Or, visit my Web site and peruse all of the free software at:
>
>http://www.qsl.net/w9dmk

Hi Bob,

Thanx, I look forward to trying this out.

73's
Richard Clark, KB7QHC

# 1500. Re: An easy experiment with a coil

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-29 03:18:39 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <4181b4a0$1_3@127.0.0.1>
Source record: 87395

Tom Donaly wrote:
> Actually, no one really knows whether it's really a sine curve
> or not because no one has ever been able to solve the integral
> equation that would give an exact answer.

It would only be a sine curve if the reflected current was equal
to the forward current, i.e. the antenna was lossless (no I^2*R losses
and no radiation). We know that the reflected current is roughly about
90% of the value of the forward current at the feedpoint of a dipole.
So the total current distribution approximates a cosine wave. In the
textbooks you will find general assumption statements like Kraus':

"IT IS GENERALLY ASSUMED that the current distribution of an infinitesimally
thin antenna is sinusoidal, and that the phase is constant over a 1/2WL
interval, changing abruptly by 180 degrees between intervals."

For all real-world current waves, there is an attenuation factor. The
reflected current arriving back at the feedpoint is always less than
the forward current. That's why the feedpoint impedance,
(Vfor+Vref)/(Ifor+Iref) is low but never zero for a dipole. The net
current cosine function is a ballpark assumption, not actual reality.

This is interesting because (Vfor+Vref)/(Ifor+Iref) is 75 ohms for a
1/2WL dipole but is about 12 ohms for a 75m bugcatcher. That means
the reflected waves are closer in magnitude to the forward waves
in the 75m bugcatcher than they are for a 1/2WL dipole. That makes
sense since the tip of the antenna is closer to the feedpoint for
the 75m bugcatcher than for the 1/2WL dipole.
--
73, Cecil http://www.qsl.net/w5dxp

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# 1501. 75 OHM hardline on VHF and UHF

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-29 03:55:35 UTC
From: W2RAC <rcook31@cfl.rr.com>
Message-ID: <2df3o01srhq7ppmevg1errb6k47jbd2mld@4ax.com>
Source record: 87396

I am trying to see if I can use some surplus 1/2 inch hardline
"feeder" for my 2m ssb loops and 440 sat antenna.
So far I can use my ssb loops from 144 to 145.4 under 2 to 1 swr.
And again from 146.5 to 148 as well. Keeping the Resistance at about
50 Ohms. The antenna SWR is 1.7 to 1 without the hardline.

Anyone else using CATV hardline for above HF freq.

W2RAC
IRLP 4053
Echolink 40531

## 1502. Any experience with a NB6ZEP antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-29 04:30:36 UTC
From: theplanters95@aol.comnospam
Message-ID: <20041029003036.02938.00002726@mb-m11.aol.com>
Source record: 87397

It is found at http://home.teleport.com/~nb6z/nb6zep.htm

It is a basic 20m extended zepp used on 40m-10m with ladderline and a tuner.
You can add an extension to gain 80m. Anybody tried this antenna?

Randy Ka4nma

# 1503. Re: The "TRICK" to TV 'type' Coax Cable [Shielded] SWL Loop Antennas {RHF}

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-29 04:31:59 UTC
From: Telamon <telamon_spamshield@pacbell.net.is.invalid>
Message-ID: <telamon_spamshield-83FA54.21320528102004@newssvr14-ext.news.prodigy.com>
Source record: 87398
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

In article <clqv4o$duv$1@news.ks.uiuc.edu>,
gene@csl.uiuc.edu (Gene Gardner) wrote:

> This seems like a good place to insert a discussion about a
> "shielded loop" being a myth for anything except for deeper
> nulls in the directivity pattern: (these were posted about
> 18 months ago).
> ------------------------------------------------------------
> ------------------------------------------------------------

< Snip >

It is a good example of why I do not read rec.radio.amateur.antenna.
Anything you read in it has about a 50% chance of being correct. It is
up to you to figure out which is right. If I want to read a thesis, I'll
crack a textbook where I stand a better chance of not being misled. With
technical articles, I also do not have to deal with terms like, myth,
oldwives tails, or requests for citations and the like.

--
Telamon
Ventura, California

# 1504. Re: One band tuner?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-29 05:20:40 UTC
From: John Franklin <jpfrank@peoplepc.com>
Message-ID: <lqkgd.12874$ta5.6215@newsread3.news.atl.earthlink.net>
Source record: 87399

> Hi Ken, If you have the equipment to determine the impedance of the
> antenna at
> the middle of the 10M band, there are a number of ways to match it to 50
> ohms.
>
> First of all, you don't want an RLC circuit. Leave out the R cause that
> is
> power lost as heat. You want everything to be radiated. An "L" network
> consisting of an inductor and capacitor will match anything to anything.
> What I usually do is determine the feedpoint impedance of the antenna at
> the
> frequency of interest, and use the Smith Chart to determine the
> configuration
> and values of an "L" network to get a match.
> If you are not comfortable with the Chart, there are some programs on the
> net
> that will design the network for you. Or, if you give me the complex
> impedance
> and frequency, I will be glad to provide a network.
> 73 Gary N4AST

Ummmm wouldn't it be easier to just trim the whip? Years ago I trimmed a 4 ft "Ugly Stick" down for 10 meters it worked quite well. I used to easily work Japan from my pickup in Portland Oregon with 25 watts, using just that ugly stick.

## 1505. So what happened to Mr Fractal?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-29 08:06:43 UTC
From: Mark <bigfathhairybiker@MAILhot.com>
Message-ID: <4181f8e7$0$1821$ed9e5944@reading.news.pipex.net>
Source record: 87400

It's all gone quiet now....

# 1506. Re: Any experience with a NB6ZEP antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-29 11:04:48 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <418221ea$1_5@127.0.0.1>
Source record: 87401

Theplanters95 wrote:
> It is found at http://home.teleport.com/~nb6z/nb6zep.htm
>
> It is a basic 20m extended zepp used on 40m-10m with ladderline and a tuner.
> You can add an extension to gain 80m. Anybody tried this antenna?

Technically, an Extended Double Zepp is a single-band antenna. That
76 ft. antenna is an EDZ on 15.8 MHz. An EDZ is 1.28WL, the point of
maximum gain for a dipole pattern. Below 15.8 MHz, the radiation pattern
will have two main lobes. Above 15.8 MHz, the radiation pattern will
become multi-lobed (cloverleaf) and have very little broadside radiation.
On 6.2 MHz, that antenna is just a 1/2WL dipole. It should work well on
40m-10m.
--
73, Cecil http://www.qsl.net/w5dxp

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# 1507. Re: 75 OHM hardline on VHF and UHF

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-29 11:11:33 UTC
From: Dave <noone@nowhere.com>
Message-ID: <woidnZqzNcj3uB_cRVn-qg@crocker.com>
Source record: 87402

yes, works fine, lasts a long time. easy to make connectors.

"W2RAC" <rcook31@cfl.rr.com> wrote in message
news:2df3o01srhq7ppmevg1errb6k47jbd2mld@4ax.com...
> I am trying to see if I can use some surplus 1/2 inch hardline
> "feeder" for my 2m ssb loops and 440 sat antenna.
> So far I can use my ssb loops from 144 to 145.4 under 2 to 1 swr.
> And again from 146.5 to 148 as well. Keeping the Resistance at about
> 50 Ohms. The antenna SWR is 1.7 to 1 without the hardline.
>
> Anyone else using CATV hardline for above HF freq.
>
> W2RAC
> IRLP 4053
> Echolink 40531

# 1508. Re: Any opinion about the Terk AF1 antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-29 13:08:36 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <ohrgd.24603$Qv5.21413@newssvr33.news.prodigy.com>
Source record: 87403

brewhaha,
How do I use my multi-meter to check the impedance of
my antenna?
'Doc

## 1509. Re: One band tuner?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-29 14:56:07 UTC
From: jgboyles@aol.com
Message-ID: <20041029105607.25615.00002537@mb-m17.aol.com>
Source record: 87404

> Ummmm wouldn't it be easier to just trim the whip?

Yes, but this is not what Ken was asking. I gathered he wanted to leave the whip at a length that would work in the CB band, and add a siple matching network for operation in the 10M band.

>I used to easily work Japan from my pickup in Portland Oregon with 25 watts,

When 10M is open you can work anywhere with just about anything. During a recent 10M contest I worked all over the world using a 8' loaded dipole indoors and 10 watts.

73 Gary N4AST

# 1510. Re: New Butternut question (tunung stub)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-29 16:44:04 UTC
From: kelly@dvol.com
Message-ID: <d22b54c3.0410290844.5bcb349c@posting.google.com>
Source record: 87405

Mike Coslo <mjc5remove@psu.edu> wrote in message news:<417FBEC5.9010402@psu.edu>...
> Larry Clark wrote:
> > Mike Coslo wrote:
> >
> >> On my HF6V, it calls for a "tuning stub" of a 1/4 wavelength to tune
> >> the antenna at 20 meters. The stub is made of 75 ohm coax, and is
> >> 11'4" long, after which the rest of the coax to the shack is 50 ohm.
> >>
> >> How exactly does this work? There is an explanation of sorts in
> >> the manual, but nothing I can sink my teeth into.
> >>
> >> One of the first things I trip over is that an 11'4" piece of 75
> >> ohm coax is not a quarter wave in the 20 meter band - more like 17+ MHz.
> >>
> >> The book notes that the 20 meter portion is more like 100 ohms,
> >> and the stub allows your rig to see 50.
> >>
> >> If the antenna works, that's cool, but I'd sure like to know a
> >> little more detail.
> >>
> >> - Mike KB3EIA -
> >>
> >
> > are you accounting for velocity factor?
>
>
> They do have different lengths for different dielectrics. solid
> dielectric is the 11 foot +, and foam dielectric uses a 13 foot + length.
>
> It's likely that velocity factor is involved in that part.
>
>
> <<beginner alert!>>
>
>
> Lessee if I have this correct here. Pardon if I seem a little slow, as
> I'm new at this.
>
> Since I calculated 16' 6" inch for the middle of the 20 meter band.
>
> And they are using 11' 4" of solid dielectric coax for a stub.
>
> 11'4" is around 70 percent of the length of 16'6".
>

> So the solid dielectric velocity factor is around .70 correct?
>
> This would make the foam dielectric around .80 if I'm not all wet.
>
> looking at velocity factors for various cable types, I'm seeing from .66
> to .85.
>
> Of course I don't know where they calculated the exact frequency for,
> and this antenna probably has some other interactions, but it seems to
> be in the ballpark.
>
> Is this solid, or nonsense?

You have the basics OK Mike. Calculated lengths are fuzzy things, the trick is getting the length right out in the yard with the specific coax you have on hand. For 1/4 wave cutting purposes coax matching setions can be designed the same way coax harmonic filter stubs are designed.

There's a bunch of info on the topic in the K1TTT website and it applies to both matching and filter line lengths.

http://www.k1ttt.net/technote/onestub.html

http://www.k1ttt.net/technote/stubs.html

But then comes the realities, measuring the results of your trimming process to find out if you really do have a good 1/4 wave line when it's done. The handiest way to do this is with an antenna analyzer. The manuals for the MFJ 259/269 analyzers illustrate (educate) how it can be done rather simply with any analyzer and can be downloaded as a .pdf from the MFJ website.

>
> - Mike KB3EIA -
>
> Now I wonder how that all ties in with changing that 100 Ohm impedance
> to 50 Ohms?

See chapter 26-6 of the ARRL handbook (19th ed., 2000) "Coupling the Line to the Antenna".

Za = Antenna feedpoint impedance = 100 ohms
Zf = Feedline impedance = 50 ohms
Zm = Required characteristic impedance of a 1/4 wave matching section = ?

Zm = Square root of (Za ï¿½ Zf)= ?
Zm = square root of (50 ï¿½ 100) = 71 ohms.

> <<beginner alert off!>>

w3rv

# 1511. Re: DIY Omni TV receiver antenna challenge

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-29 18:19:50 UTC
From: TheNavigator <thexpatriate@hotmail.com>
Message-ID: <ed27d3d99e5c26be2afc5e0b22c72644@localhost.talkaboutradio.com>
Source record: 87406

Angelo: Did you build the "turnstyle" shaped antennae? I'm assuming it looked like an X in a circle...is that correct? If you have the time, what type of material did you use and how many feet did you need? Did you use a preamp, and if so, what is a preamp? I'm not too savvy on radios and electronics, but want a good, economical, antennae for the commercial radio when I'm sailing the CHX, and to watch some TV when I'm in the dock.

Thanks.

## 1512. WANTED: Mosley Mini-33 Tribander Yagi

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-29 18:55:18 UTC
From: Roland S Geter Sr <NoSpam@NoSpam.com>
Message-ID: <3sCgd.21007$NC6.16944@newsread1.mlpsca01.us.to.verio.net>
Source record: 87407
Cross-posted to: rec.radio.amateur.antenna,rec.radio.swap

Will pay cash and pick-up or shipping the subject antenna.
Reply to roland@geter.org or call 866-ROLANDG
Roland S Geter Sr - WB6LNA

# 1513. Re: New Butternut question (tunung stub)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-29 19:43:24 UTC
From: W4WNT <w4wnt@carolina.rr.com>
Message-ID: <w3xgd.9396$YL.1409325@twister.southeast.rr.com>
Source record: 87408

Often with coax, the velocity factor is taken into account. RG-58 is 0.66,
so it comes out shorter than a quarter wavelength.

Bill, W4WNT

"Mike Coslo" <mjc5remove@psu.edu> wrote in message
news:417F9B31.1010908@psu.edu...
> On my HF6V, it calls for a "tuning stub" of a 1/4 wavelength to tune the
> antenna at 20 meters. The stub is made of 75 ohm coax, and is 11'4" long,
> after which the rest of the coax to the shack is 50 ohm.
>
> How exactly does this work? There is an explanation of sorts in the
> manual, but nothing I can sink my teeth into.
>
> One of the first things I trip over is that an 11'4" piece of 75 ohm coax
> is not a quarter wave in the 20 meter band - more like 17+ MHz.
>
> The book notes that the 20 meter portion is more like 100 ohms, and the
> stub allows your rig to see 50.
>
> If the antenna works, that's cool, but I'd sure like to know a little more
> detail.
>
> - Mike KB3EIA -
>

# 1514. Re: Fractenna lashes out at hams using BPL

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-29 20:37:39 UTC
From: CW <"no adddress"@spam>
Message-ID: <ULednZ5YV7SMNx_cRVn-qg@comcast.com>
Source record: 87409

So the truth finally emerges. Fracky advocates (and practices) lying with precision.

"Bob McBeth" <BobbyMcBeth_NotReally_@HotMail.com> wrote in message news:Y4Ycd.2332$%>
> "Fractenna"
> > It is important that you express care when making
> > statements that are false.
>

# 1515. Re: Gain per unit length of boom

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-29 21:23:36 UTC
From: richardharrison@webtv.net
Message-ID: <15844-4182B4D8-43@storefull-3255.bay.webtv.net>
Source record: 87410

Art Unwin wrote:
"I do believe that this posting should put an end to this thread and I thank you again for your input."

All the questions answered? Any topic is eventually tiresome, but not everyone tires of it at the same time. Gain per unit length is likely not a straight line at any particular frequency. There is probably much more to be said about best coupling for maximum gain.

There was an article by Joe Reisert, W1JR in the December 1986 issue of "Ham Radio" about a 28-element, 21-foot boom, 432 MHz (about 70 cm WL) Yagi Joe built. The gain was about 19 dBi, or about 0.9 dB per foot at 432 MHz.

The pattern shown and gain are said to come from MININEC.

Best regards, Richard Harrison, KB5WZI

# 1516. Re: New Smith Chart Program - "SmartSmith"

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-29 23:20:25 UTC
From: jgboyles@aol.com
Message-ID: <20041029192025.11378.00002680@mb-m15.aol.com>
Source record: 87411

Can't download the file Bob, wonder if anyone else has had a problem. Tried 5 times.
73 Gary N4AST

# 1517. Re: Gain per unit length of boom

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-29 23:36:09 UTC
From: Tom Ring <news0000@taring.org>
Message-ID: <4182d3e9$0$91004$39cecf19@news.twtelecom.net>
Source record: 87412

Richard Harrison wrote:

> 
> There was an article by Joe Reisert, W1JR in the December 1986 issue of
> "Ham Radio" about a 28-element, 21-foot boom, 432 MHz (about 70 cm WL)
> Yagi Joe built. The gain was about 19 dBi, or about 0.9 dB per foot at
> 432 MHz.
> 
> The pattern shown and gain are said to come from MININEC.
> 
> Best regards, Richard Harrison, KB5WZI
> 

That was a 24 foot (7.3 wavelength) antenna, with 19.15 dBi claimed,
which was actually higher than newer modeling programs give it.

tom
K0TAR

# 1518. Re: Gain per unit length of boom

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-29 23:42:51 UTC
From: Tom Ring <news0000@taring.org>
Message-ID: <4182d57b$0$91004$39cecf19@news.twtelecom.net>
Source record: 87413

Richard Harrison wrote:

> There was an article by Joe Reisert, W1JR in the December 1986 issue of
> "Ham Radio" about a 28-element, 21-foot boom, 432 MHz (about 70 cm WL)
> Yagi Joe built. The gain was about 19 dBi, or about 0.9 dB per foot at
> 432 MHz.
>
> The pattern shown and gain are said to come from MININEC.
>
> Best regards, Richard Harrison, KB5WZI
>

Oops, my mistake, 10.5 wavelengths, and about .9 dB under what it could
be, assuming the model is correct for mininec.

tom
K0TAR

# 1519. Re: New Smith Chart Program - "SmartSmith"

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-30 00:08:08 UTC
From: w9dmk@crosslink.net
Message-ID: <4182dac2.20500017@news.crosslink.net>
Source record: 87414

On 29 Oct 2004 23:20:25 GMT, jgboyles@aol.com (JGBOYLES) wrote:

>Can't download the file Bob, wonder if anyone else has had a problem. Tried 5
>times.
>73 Gary N4AST

Dear Gary,

I have only had one person send me a message about the program and he
said nothing about any problem in downloading. Could you tell me
whether you are clicking on the link while at my Web page or are you
using the link that I put in my posting to rraa?

If you are not successful, send me a message at w9dmk@crosslink.net,
and I will send it to you as an attachment.

Bob, W9DMK, Dahlgren, VA
http://www.qsl.net/w9dmk

# 1520. Re: Gain per unit length of boom

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-30 00:13:51 UTC
From: arrow146@aol.comjunk.com
Message-ID: <20041029201351.27025.00002921@mb-m13.aol.com>
Source record: 87415

<< There is probably much
more to be said about best coupling for maximum gain. >>

Maximum Gain, that seems to be all people think about.

Max. Gain is not always a good thing.

Example which is better for 2 meter mobile a 1/4 wave 0 dB whip a 3 dB 5/8
wave or a 6 dB collinear ?

A true 6 dB collinear makes a very poor mobile antenna.
Unless your parked on level ground, then it works fine.

The 3 dB 5/8 wave works good if you are on fairly flat terrain.
But get into the mountains or use repeaters that are on
10,000 ft. + mountains like we have here in WY and Colorado.
A 0 dB 1/4 wave whip can some times work better.

People put a 3 dB gain mag mount on the back corner of the
finder, setting at a 30 degree angle and wonder why it don't work as well as my
0 dB 1/4 wave mounted in the center of the roof of a van. (Mounted in a hole
in the roof, not a mag mount.)

All I am saying is there is more to an antenna than Max gain.
What about bandwidth, pattern etc.

There, I feel better.

73 Al Lowe N0IMW
Arrow Antenna

# 1521. Re: 15m Vertical Matching help

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-30 00:43:19 UTC
From: "J. Laub" <wd0bka@netscape.net>
Message-ID: <10o5oubahfqjd30@news.supernews.com>
Source record: 87416

I'd like to construct a 15m vert that does not require use of my MFJ Versa Tuner II. Portability. I started over this afternoon on a new vertical using plans from a web site.

WIRING:
I've suspended an 11'1" #12 wire for 15 inside some pvc. (While I was at it I also suspended a 16'5" #12 wire inside the same piping for 20m.)

RADIALS:
I've got six underground radials, 2 @ 11' and 4 @ 5-1/2"

FEEDER & CONNECT POINT:
Using 52ohm RG58 (the thin stuff) to feed into a female coax chassis mount at base of system. I have a small (maybe 4") of line from the center of the chassis mount leading to the connection point bolt/wing nut for each/either wire. This wire is 4" and I suspect this 4" may cause some electrical lengthening right? If it does, I'm over on measurements for each. errr....

Other than this possible lengthening, I cannot think of what else to do.

In short, I should probably borrow a dip meter and check for impedance problem? I was reading that I should attach a silver mica capacitor across the wires. Haven't tried this yet as they are still in the mail.

I was thinking ahead too when I put this stinker up. I've got a 22-turn base coil sitting there as my next try but that sort of defeats my original simplicity plan.

73's-

-=Jon

w9gb wrote:

> "J. Laub" <wd0bka@netscape.net> wrote in message
> news:10o0b9opm3n8q2a@news.supernews.com...
>
>>I've constructed a 1/4-wave 15m vertical from 11' of 3/4" copper tubing
>>(water type). It's being fed with coax.
>>
>>Much to my frustration, I am unable to get this thing to resonate w/o the
>>use of a transmatch. Any tips, ideas or good plans?
>>
>>73's
>>
>>-=Jon

>
>
> Jon -
>
> One of the old ARRL Antenna Handbooks (Green cover - circa 1973) had a 15
> meter dipole constructed form 2 piece of 1/2 inch 10' electrical conduit and
> a small coil wound from 1/8" copper or brass tubing (50 ohm coax fed).
>
> The impedance for a vertical will be quite low (less than 50 ohms) what are
> you using for matching?
>
> 15 meters / 4 = 3.75 meters (1/4 wave) ~ 12.3 Feet
>
> Greg
> w9gb
>
>

# 1522. Re: Gain per unit length of boom

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-30 00:52:01 UTC
From: "H. Adam Stevens, NQ5H" <NQ5H@ARRL.net>
Message-ID: <10o5pf983o8macf@corp.supernews.com>
Source record: 87417

"N0IMW" <arrow146@aol.comjunk.com> wrote in message
news:20041029201351.27025.00002921@mb-m13.aol.com...
> << There is probably much
> more to be said about best coupling for maximum gain. >>
>
> Maximum Gain, that seems to be all people think about.
>
> Max. Gain is not always a good thing.
>
> Example which is better for 2 meter mobile a 1/4 wave 0 dB whip a 3 dB
5/8
> wave or a 6 dB collinear ?
>
> A true 6 dB collinear makes a very poor mobile antenna.
> Unless your parked on level ground, then it works fine.
>
> The 3 dB 5/8 wave works good if you are on fairly flat terrain.
> But get into the mountains or use repeaters that are on
> 10,000 ft. + mountains like we have here in WY and Colorado.
> A 0 dB 1/4 wave whip can some times work better.
>
> People put a 3 dB gain mag mount on the back corner of the
> finder, setting at a 30 degree angle and wonder why it don't work as well
as my
> 0 dB 1/4 wave mounted in the center of the roof of a van. (Mounted in a
hole
> in the roof, not a mag mount.)
>
> All I am saying is there is more to an antenna than Max gain.
> What about bandwidth, pattern etc.
>
> There, I feel better.
>
> 73 Al Lowe N0IMW
> Arrow Antenna

Son, you forgot "loss".
When I drilled that hole in the middle of the roof of the brand new Durango,
I married that truck.
Then there are the two BIG holes, one in each rear quarterpanel.
At 90,000 miles I'm about to do the FIRST brake job; It's an OK truck.
Anyone remember how Chrysler's still in business?
Anyway, here's my rig:

Comet 144/222/440 on an NMO mount topside center, small Hi-Q screwdriver 5' above ground on the left rear quarterpanel.
Tarheel 4' screwdriver 4' above ground with a 4' whip on the right rear quarter panel, toroidal transformer matched for 20 ohms.
For 160/80 I also have a BIG Hi-Q for the right side.
Rigs are Kenwood: 742 and 480HX.
No tuners.

73
H., NQ5H

# 1523. Re: So what happened to Mr Fractal?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-30 00:59:20 UTC
From: John Franklin <jpfrank@peoplepc.com>
Message-ID: <IHBgd.13983$ta5.11543@newsread3.news.atl.earthlink.net>
Source record: 87418

That's a good thing, wouldn't you say?

"Mark" wrote in message It's all gone quiet now....
>
>

# 1524. Re: 15m Vertical Matching help

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-30 01:10:04 UTC
From: "H. Adam Stevens, NQ5H" <NQ5H@ARRL.net>
Message-ID: <10o5qh4kmpf899e@corp.supernews.com>
Source record: 87419

A simple antenna is resonant at one fundamental frequency.
Get your hands on one of the new cheap antenna analyzers and find that
frequency.
Improve your counterpoise and adjust the radiator's length to make your wire
resonant where you want it to be resonant
("resonant" = a purely resistive load).
Then match the antenna's impedance (surely <50 ohms for any 1/4 wave
vertical) to your line with a tuner or transformer.
BTW tuners suck.
Power.
73
H., NQ5H

PS
I like my BiggIR on 15 as a 3/4 lambda "singer".

"J. Laub" <wd0bka@netscape.net> wrote in message
news:10o5oubahfqjd30@news.supernews.com...
> I'd like to construct a 15m vert that does not require use of my MFJ
> Versa Tuner II. Portability. I started over this afternoon on a new
> vertical using plans from a web site.
>
> WIRING:
> I've suspended an 11'1" #12 wire for 15 inside some pvc. (While I was
> at it I also suspended a 16'5" #12 wire inside the same piping for 20m.)
>
> RADIALS:
> I've got six underground radials, 2 @ 11' and 4 @ 5-1/2"
>
> FEEDER & CONNECT POINT:
> Using 52ohm RG58 (the thin stuff) to feed into a female coax chassis
> mount at base of system. I have a small (maybe 4") of line from the
> center of the chassis mount leading to the connection point bolt/wing
> nut for each/either wire. This wire is 4" and I suspect this 4" may
> cause some electrical lengthening right? If it does, I'm over on
> measurements for each. errr....
>
> Other than this possible lengthening, I cannot think of what else to do.
>
> In short, I should probably borrow a dip meter and check for impedance
> problem? I was reading that I should attach a silver mica capacitor
> across the wires. Haven't tried this yet as they are still in the mail.
>
> I was thinking ahead too when I put this stinker up. I've got a 22-turn
> base coil sitting there as my next try but that sort of defeats my

> original simplicity plan.
>
> 73's-
>
> -=Jon
>
>
>
> w9gb wrote:
>
> > "J. Laub" <wd0bka@netscape.net> wrote in message
> > news:10o0b9opm3n8q2a@news.supernews.com...
> >
> >>I've constructed a 1/4-wave 15m vertical from 11' of 3/4" copper tubing
> >>(water type). It's being fed with coax.
> >>
> >>Much to my frustration, I am unable to get this thing to resonate w/o
the
> >>use of a transmatch. Any tips, ideas or good plans?
> >>
> >>73's
> >>
> >>-=Jon
> >
> >
> > Jon -
> >
> > One of the old ARRL Antenna Handbooks (Green cover - circa 1973) had a
15
> > meter dipole constructed form 2 piece of 1/2 inch 10' electrical conduit
and
> > a small coil wound from 1/8" copper or brass tubing (50 ohm coax fed).
> >
> > The impedance for a vertical will be quite low (less than 50 ohms) what
are
> > you using for matching?
> >
> > 15 meters / 4 = 3.75 meters (1/4 wave) ~ 12.3 Feet
> >
> > Greg
> > w9gb
> >
> >

# 1525. Re: New Smith Chart Program - "SmartSmith"

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-30 01:15:58 UTC
From: Barnacle Bill <quahog@fish.net>
Message-ID: <10o5qqeeufv3e35@corp.supernews.com>
Source record: 87420

In article <4182dac2.20500017@news.crosslink.net>, Robert Lay W9DMK wrote:
> On 29 Oct 2004 23:20:25 GMT, jgboyles@aol.com (JGBOYLES) wrote:
>
>>Can't download the file Bob, wonder if anyone else has had a problem. Tried 5
>>times.
>>73 Gary N4AST
>
> Dear Gary,
>
> I have only had one person send me a message about the program and he
> said nothing about any problem in downloading. Could you tell me
> whether you are clicking on the link while at my Web page or are you
> using the link that I put in my posting to rraa?
>
> If you are not successful, send me a message at w9dmk@crosslink.net,
> and I will send it to you as an attachment.
>
>
> Bob, W9DMK, Dahlgren, VA
> http://www.qsl.net/w9dmk

qsl.net is notoriously slow. Anybody with a fat pipe (I got T1 at work) can
see this. I tried today and got nowhere, both with the link in the post and
on the website. Too bad, these look like great programs. I would be
willing to PAY for them on a cd.

# 1526. Re: 15m Vertical Matching help

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-30 01:40:39 UTC
From: w9gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <riCgd.32325$R05.122@attbi_s53>
Source record: 87321

"J. Laub" <wd0bka@netscape.net> wrote in message
news:10o5oubahfqjd30@news.supernews.com...
> I'd like to construct a 15m vert that does not require use of my MFJ Versa
> Tuner II. Portability. I started over this afternoon on a new vertical
> using plans from a web site.
>
> WIRING:
> I've suspended an 11'1" #12 wire for 15 inside some pvc. (While I was at
> it I also suspended a 16'5" #12 wire inside the same piping for 20m.)
>
> RADIALS:
> I've got six underground radials, 2 @ 11' and 4 @ 5-1/2"
>
> FEEDER & CONNECT POINT:
> Using 52ohm RG58 (the thin stuff) to feed into a female coax chassis mount
> at base of system. I have a small (maybe 4") of line from the center of
> the chassis mount leading to the connection point bolt/wing nut for
> each/either wire. This wire is 4" and I suspect this 4" may cause some
> electrical lengthening right? If it does, I'm over on measurements for
> each. errr....
>
> Other than this possible lengthening, I cannot think of what else to do.
>
> In short, I should probably borrow a dip meter and check for impedance
> problem? I was reading that I should attach a silver mica capacitor
> across the wires. Haven't tried this yet as they are still in the mail.
>
> I was thinking ahead too when I put this stinker up. I've got a 22-turn
> base coil sitting there as my next try but that sort of defeats my
> original simplicity plan.
>
> 73's-
>
> -=Jon
>

You may have to use the base coil to properly match this vertical. A 1/4
wave (with a reflected image - Marconi style) will have a 36 ohm impedance
at the feedpoint.
http://pages.intnet.mu/ingepru/antenna.htm

gb

# 1527. Re: New Butternut question (tunung stub)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-30 02:49:40 UTC
From: kelly@dvol.com
Message-ID: <d22b54c3.0410291849.10f92d64@posting.google.com>
Source record: 87322

> >
> > Now I wonder how that all ties in with changing that 100 Ohm impedance
> > to 50 Ohms?
>
> See chapter 26-6 of the ARRL handbook (19th ed., 2000) "Coupling the
> Line to the Antenna".

. . . 26-6 of the ARRL Antenna Book (19th ed., 2000) "Coupling the
> Line to the Antenna".

Nutz.

Spank.

w3rv

# 1528. Re: Any opinion about the Terk AF1 antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-30 03:33:16 UTC
From: Howard <mensch90249@yahoo.com>
Message-ID: <2626o0h1bq7jmrlj6sivf3d3kpb84jqbcb@4ax.com>
Source record: 87323

On 26 Oct 2004 22:11:30 -0700, linuxlover992000@yahoo.com (Linux
Lover) wrote:

>Is it really that magical (for FM at least) as described here?
>
>http://tinyurl.com/5mt6c
>
>If it is indeed that good, how does it coincide with the mockery this
>guy makes from *any* omni direction here?
>
>http://www.kyes.com/antenna/antennatypes/antennatypes.html
>
>The description & specs for the Terk AF1 can be found here:
>http://www.universal-radio.com/catalog/mwant/3569.html
>
>Thanks,
>Lynn
Lynn,
I have used a Terk FM amplified antenna (Terk Tower, the older version
I have is FM only) in the past and it worked fine. I was in a bit of
an "RF Hole" where a twinlead dipole just wouldn't cut it and the Terk
pulled in the stations I wanted. The gain setting was kept very low
for all but one station. Fortunately I don't have reception issues
where I'm at now but I kept the antenna just in case 8-} I'd
recommend their products based on my [single point] experience with
them. This may be an easier option for you than the attic antenna -
the new Terk Tower includes AM and sells for $29.95 at Best Try
..... oops, I mean Best Buy. Gotta love the Best Try description:
"Omnidirectional antenna; also has directional antenna capability"
Howard

# 1529. Re: New Smith Chart Program - "SmartSmith"

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-30 03:37:49 UTC
From: w9dmk@crosslink.net
Message-ID: <41830aa2.32756220@news.crosslink.net>
Source record: 87324

On Sat, 30 Oct 2004 01:15:58 -0000, Barnacle Bill <quahog@fish.net>
wrote:

>qsl.net is notoriously slow. Anybody with a fat pipe (I got T1 at work) can
>see this. I tried today and got nowhere, both with the link in the post and
>on the website. Too bad, these look like great programs. I would be
>willing to PAY for them on a cd.

Dear Bill,

Slow is relative. For someone like me with a V.90 modem, everything
seems slow. I get the same download speeds from QSL as from anywhere
else - about 4 kBytes/sec.

Getting the software on is easier than you might think. I will try to
honor such requests for what is essentially my costs, so long as the
volume of requests isn't too high.

Anyone who sends me a Self Addressed 6" x 9" clasp type manila
envelope with a dollar bill in it gets a CD by return mail.

R. Lay
15517 Delaware Dr.
King George, VA 22485
Bob, W9DMK, Dahlgren, VA
http://www.qsl.net/w9dmk

# 1530. Re: The "TRICK" to TV 'type' Coax Cable [Shielded] SWL Loop Antennas {RHF}

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-30 03:39:30 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0410291939.56423ddf@posting.google.com>
Source record: 87325
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

Telamon <telamon_spamshield@pacbell.net.is.invalid> wrote in message
>
> It is a good example of why I do not read rec.radio.amateur.antenna.
> Anything you read in it has about a 50% chance of being correct. It is
> up to you to figure out which is right. If I want to read a thesis, I'll
> crack a textbook where I stand a better chance of not being misled. With
> technical articles, I also do not have to deal with terms like, myth,
> oldwives tails, or requests for citations and the like.

And r.r.s differs from this how? They spread just as much crap here,
as they do there....Probably more...And much more OT's and radio
whacko's to boot...BTW, I happen to agree with the "thesis". I don't
believe in "low noise" antennas. Anyone who believes a shielded loop
is "quieter" than a non shielded loop needs a reality check. So in
that, I'm glad he posted the "thesis". Old wives tales need to be shot
down.....Over and over...Until dead. :( BTW, I don't have a cessna
citation, so they will be out of luck in that dept...I do fly a lear
31a on my simulator a lot though. MK

# 1531. Re: The "TRICK" to TV 'type' Coax Cable [Shielded] SWL Loop Antennas {RHF}

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-30 05:36:56 UTC
From: Telamon <telamon_spamshield@pacbell.net.is.invalid>
Message-ID: <telamon_spamshield-724864.22365629102004@newssvr21-ext.news.prodigy.com>
Source record: 87326
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

In article <25eb70d7.0410291939.56423ddf@posting.google.com>,
nm5k@wt.net (Mark Keith) wrote:

> Telamon <telamon_spamshield@pacbell.net.is.invalid> wrote in message
> >
> > It is a good example of why I do not read rec.radio.amateur.antenna.
> > Anything you read in it has about a 50% chance of being correct. It is
> > up to you to figure out which is right. If I want to read a thesis, I'll
> > crack a textbook where I stand a better chance of not being misled. With
> > technical articles, I also do not have to deal with terms like, myth,
> > oldwives tails, or requests for citations and the like.
>
> And r.r.s differs from this how? They spread just as much crap here,
> as they do there....Probably more...And much more OT's and radio
> whacko's to boot...BTW, I happen to agree with the "thesis". I don't
> believe in "low noise" antennas. Anyone who believes a shielded loop
> is "quieter" than a non shielded loop needs a reality check. So in
> that, I'm glad he posted the "thesis". Old wives tales need to be shot
> down.....Over and over...Until dead. :( BTW, I don't have a cessna
> citation, so they will be out of luck in that dept...I do fly a lear
> 31a on my simulator a lot though. MK

Well, OK there is just as much crap here but the posts in RRS do not
usually turn into a "thesis" or degenerate into soap operatic techno
babble with the usual cast of characters.

Generally, the air of pretense does not exist in RRS, as people here do
not claim to be other than nonprofessional on the subject.

Oh yeah and you are wrong about the shielded loop.

--
Telamon
Ventura, California

# 1532. Re: The "TRICK" to TV 'type' Coax Cable [Shielded] SWL Loop Antennas {RHF}

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-30 05:49:43 UTC
From: clifto <clifto@clifto.com>
Message-ID: <nkmb52-1cr.ln1@remote.clifto.com>
Source record: 87327
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

Telamon wrote:
> Generally, the air of pretense does not exist in RRS, as people here do
> not claim to be other than nonprofessional on the subject.

I am a professional shortwave listener, as my mother once gave me a dime
to go listen to the radio.

--
So those 380 tons of missing explosives were moved by Saddam before all
those expert inspectors noticed, eh?

No wonder twelve years of inspections found NOTHING.

# 1533. Re: The "TRICK" to TV 'type' Coax Cable [Shielded] SWL Loop Antennas {RHF}

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-30 05:54:49 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <vra6o0tbmvc5f0j98e4asroifdt82ah83q@4ax.com>
Source record: 87328

On Sat, 30 Oct 2004 05:36:56 GMT, Telamon
<telamon_spamshield@pacbell.net.is.invalid> wrote:

>Well, OK there is just as much crap here but the posts in RRS do not
>usually turn into a "thesis" or degenerate into soap operatic techno
>babble with the usual cast of characters.
>
What a lot of whining. Is this another episode of "As the World DXs?"

Learn to turn off the cross posting when you should be taking this to
your chaplain.

# 1534. Re: New Smith Chart Program - "SmartSmith"

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-30 08:21:12 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10o6jnqrc5pa10e@corp.supernews.com>
Source record: 87329

I successfully (I think) downloaded the file about a day ago, but the speed was extremely slow. It was about the speed of a dialup connection, although I have a T1 speed line.

Roy Lewallen, W7EL

Barnacle Bill wrote:
>
> qsl.net is notoriously slow. Anybody with a fat pipe (I got T1 at work) can
> see this. I tried today and got nowhere, both with the link in the post and
> on the website. Too bad, these look like great programs. I would be
> willing to PAY for them on a cd.

# 1535. Re: Gain per unit length of boom

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-30 10:29:59 UTC
From: derekunwin@optusnet.com.au
Message-ID: <23b604cf.0410300229.6685d3f1@posting.google.com>
Source record: 87330

richardharrison@webtv.net (Richard Harrison) wrote in message
news:<15844-4182B4D8-43@storefull-3255.bay.webtv.net>...
> Art Unwin wrote:
> "I do believe that this posting should put an end to this thread and I
> thank you again for your input."
>
> All the questions answered? Any topic is eventually tiresome, but not
> everyone tires of it at the same time. Gain per unit length is likely
> not a straight line at any particular frequency. There is probably much
> more to be said about best coupling for maximum gain.
>
> There was an article by Joe Reisert, W1JR in the December 1986 issue of
> "Ham Radio" about a 28-element, 21-foot boom, 432 MHz (about 70 cm WL)
> Yagi Joe built. The gain was about 19 dBi, or about 0.9 dB per foot at
> 432 MHz.
>
> The pattern shown and gain are said to come from MININEC.
>
> Best regards, Richard Harrison, KB5WZI

Hi Richard
Unfortunatly shortly after making his last post Art was
rushed to hospital and underwent emergency surgery to remove a
miss-behaving gall bladder.
At the time of writing I have been informed he is recovering and
hopes to be home in about a week or so.

Regards Derek unwin

# 1536. Re: Gain per unit length of boom

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-30 14:35:57 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <0g97o0h5hepbfghrphjk347pj7c8k2tthi@4ax.com>
Source record: 87331

On 30 Oct 2004 03:29:59 -0700, derekunwin@optusnet.com.au (Derek Unwin) wrote:

> At the time of writing I have been informed he is recovering and
>hopes to be home in about a week or so.
>
> Regards Derek unwin

Hi Derek,

I hope all goes well without complications for your father.

73's
Richard Clark, KB7QHC

## 1537. Skywire coax cable vs. regular coax cable

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-30 15:17:17 UTC
From: jack_linden@hotmail.com
Message-ID: <d920aa13.0410300717.59041206@posting.google.com>
Source record: 87332

Is there a difference between a "Skywire" coax cable and a regular coax cable you get from Radio Shack in terms of quality or compatibilities?

# 1538. Re: Skywire coax cable vs. regular coax cable

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-30 15:58:39 UTC
From: Howard <mensch90249@yahoo.com>
Message-ID: <tud7o0tf83btiosb1m260o4qv0aige9gvd@4ax.com>
Source record: 87333

On 30 Oct 2004 08:17:17 -0700, jack_linden@hotmail.com (Jack) wrote:

>Is there a difference between a "Skywire" coax cable and a regular
>coax cable you get from Radio Shack in terms of quality or
>compatibilities?
I've never heard of "Skywire" coax however I can say that the coax
I've seen from Radio Shack doesn't have good braid coverage of the
dielectric - perhaps 75%. Times Microvave "LMR" series is good coax
and I've also found Belden and International (their 9096 which is a
Belden 9913 equivalent) to make good quality coax.

The way I view it, if you're spending good money on an antenna and
going through the effort to install it (whether on a tower or roof
mounted mast) it pays to spend a few extra dollars for a quality
feedline, and to adequately weather-proof the connections.

Howard

# 1539. Re: Skywire coax cable vs. regular coax cable

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-30 17:20:03 UTC
From: Jack Painter <223bthp@cox.net>
Message-ID: <Z2Qgd.36151$_g6.5922@okepread03>
Source record: 87334

"Jack" <jack_linden@hotmail.com> wrote in message
news:d920aa13.0410300717.59041206@posting.google.com...
> Is there a difference between a "Skywire" coax cable and a regular
> coax cable you get from Radio Shack in terms of quality or
> compatibilities?

I think Grove Enterprises (reseller of equipment and publisher of Monitoring Times) might have trademark to an HF antenna called "Grove Skywire". It is an insulated coax-type antenna that functions as a long wire or random wire, depending on how much of it you put up.

Radio Shack's RG-58U is a heavy duty and reliable coax that provides many years of low-loss service. I eventually replaced all of mine with more expensive Belden equivalents but doubt there is much difference in velocity or shielding, etc.

Jack Painter
Virginia Beach VA

# 1540. Re: New Smith Chart Program - "SmartSmith"

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-30 18:13:13 UTC
From: Old Ed <eXseniorsDeleteThisAndTheX@earthlink.net>
Message-ID: <ZQQgd.13066$KJ6.5864@newsread1.news.pas.earthlink.net>
Source record: 87335

Hi Bob -

Thank you very much for making these available!

I just downloaded SmartSmith from your qsl.net links,
and I'm looking forward to trying it.

BTW, qsl.net WAS spectacularly slow, averaging
0.5 kB/s. It's a good thing this was "only" 2MB.

73, Ed, W6LOL

# 1541. Re: 15m Vertical Matching help

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-30 18:57:05 UTC
From: Jonathan Laub <wd0bka@netscape.net>
Message-ID: <10o7p028ljq1608@news.supernews.com>
Source record: 87336

w9gb wrote:
> "J. Laub" <wd0bka@netscape.net> wrote in message
> news:10o5oubahfqjd30@news.supernews.com...
>
>>I'd like to construct a 15m vert that does not require use of my MFJ Versa
>>Tuner II. Portability. I started over this afternoon on a new vertical
>>using plans from a web site.
>>
>>WIRING:
>>I've suspended an 11'1" #12 wire for 15 inside some pvc. (While I was at
>>it I also suspended a 16'5" #12 wire inside the same piping for 20m.)
>>
>>RADIALS:
>>I've got six underground radials, 2 @ 11' and 4 @ 5-1/2"
>>
>>FEEDER & CONNECT POINT:
>>Using 52ohm RG58 (the thin stuff) to feed into a female coax chassis mount
>>at base of system. I have a small (maybe 4") of line from the center of
>>the chassis mount leading to the connection point bolt/wing nut for
>>each/either wire. This wire is 4" and I suspect this 4" may cause some
>>electrical lengthening right? If it does, I'm over on measurements for
>>each. errr....
>>
>>Other than this possible lengthening, I cannot think of what else to do.
>>
>>In short, I should probably borrow a dip meter and check for impedance
>>problem? I was reading that I should attach a silver mica capacitor
>>across the wires. Haven't tried this yet as they are still in the mail.
>>
>>I was thinking ahead too when I put this stinker up. I've got a 22-turn
>>base coil sitting there as my next try but that sort of defeats my
>>original simplicity plan.
>>
>>73's-
>>
>>-=Jon
>>
>
>
> You may have to use the base coil to properly match this vertical. A 1/4
> wave (with a reflected image - Marconi style) will have a 36 ohm impedance
> at the feedpoint.
> http://pages.intnet.mu/ingepru/antenna.htm
>

> gb
>
>
Thanks for the link. What tools would you recommend to check both
resonance and impedance with? MFJ seemed awful pricey.

## 1542. Power antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-30 18:59:56 UTC
From: brian_dime@yahoo.com
Message-ID: <8e89f089.0410301059.4a1d4e27@posting.google.com>
Source record: 87337

I hope this is posted in the correct forumï¿½.

I'm looking for an indoor (or outdoor attic mount if necessary)
antenna that will allow me to get local NY TV stations in the
Philadelphia area. It's about 2 hours or 120 miles from the source; I
believe either the Empire State building or Palisades Park NJ. I'd
appreciate any suggestions as I'm NY Giants fan stuck in southern NJ
(Philly Eagles territory).

Thanks,

Brian D.

# 1543. Re: New Smith Chart Program - "SmartSmith"

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-30 19:02:48 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <hzRgd.86644$kz3.76769@fed1read02>
Source record: 87338

"Old Ed" <eXseniorsDeleteThisAndTheX@earthlink.net> wrote in message
news:ZQQgd.13066$KJ6.5864@newsread1.news.pas.earthlink.net...
> Hi Bob -
>
> Thank you very much for making these available!
>
> I just downloaded SmartSmith from your qsl.net links,
> and I'm looking forward to trying it.
>
> BTW, qsl.net WAS spectacularly slow, averaging
> 0.5 kB/s. It's a good thing this was "only" 2MB.
>
> 73, Ed, W6LOL
>
>

Yes, thanks from me too. I see what some posters have mentioned about your host being slow; that 2MB took over 30 minutes to download for me. There's plenty of time to go off and do something else while the transfer completes! <g>

Ed
wb6wsn

# 1544. Re: Gain per unit length of boom

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-30 19:17:22 UTC
From: k3bu@aol.comNoUsama
Message-ID: <20041030151722.23728.00002668@mb-m12.aol.com>
Source record: 87339

>
>
> Hi Richard
> Unfortunatly shortly after making his last post Art was
>rushed to hospital and underwent emergency surgery to remove a
>miss-behaving gall bladder.
> At the time of writing I have been informed he is recovering and
>hopes to be home in about a week or so.
>
> Regards Derek unwin
>
>
>
>

Hope all goes well and he is back to antenna stuff soon, wishing speedy recovery.

While speaking of gall bladder, my XYL had bad attack of gall stones, instead of going for operation we dissolved the stones with apple juice/lemon jucie/oil tretment and avoided the knife. Worth looking into it and do it as preventive measure from time to time. Info is on Internet pages under alternative medicine.

GL Yuri, K3BU.us

# 1545. Re: Power antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-30 19:19:01 UTC
From: w9gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <FORgd.344729$D%.210950@attbi_s51>
Source record: 87340

"brian dime" <brian_dime@yahoo.com> wrote in message
news:8e89f089.0410301059.4a1d4e27@posting.google.com...
>I hope this is posted in the correct forum..
>
> I'm looking for an indoor (or outdoor attic mount if necessary)
> antenna that will allow me to get local NY TV stations in the
> Philadelphia area. It's about 2 hours or 120 miles from the source; I
> believe either the Empire State building or Palisades Park NJ. I'd
> appreciate any suggestions as I'm NY Giants fan stuck in southern NJ
> (Philly Eagles territory).
>
> Thanks,
>
> Brian D.

Brian -

IF you live 120 miles from a TV transmitting site, you are in a "deep fringe" reception area. This will require you to get as much physical height and outdoor antenna - that is available for reliable reception. Winegard, AntennaCraft and ChannelMaster have model that could meet that requirement -- on a 40 or 50 foot tower.

I would recommend that you consider a satellite TV service (DirecTV, DISH) that has the NFL choice package - you get all of the sports you desire -- solid picture -- for about same amount of $$ . You are allowed by FCC (federal law) to have an outdoor satellite dish ... if you have problems with a landlord / building owner or homeowner's association - send their legal council to this web site:
http://www.fcc.gov/mb/facts/otard.html

gb

That will address that problem.

# 1546. Re: Skywire coax cable vs. regular coax cable

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-30 19:31:18 UTC
From: w9gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <a_Rgd.344770$D%.292323@attbi_s51>
Source record: 87341

"Jack" <jack_linden@hotmail.com> wrote in message
news:d920aa13.0410300717.59041206@posting.google.com...
>
> Is there a difference between a "Skywire" coax cable and a regular
> coax cable you get from Radio Shack in terms of quality or
> compatibilities?
>

Jack -

When buying coax -- be a "doubting Thomas" - there is a large amount of "junk coax" on the market. In fact many CATV companies are now replacing poor quality homeowner installed coax -- in order to handled new digital channels, Internet and phone services (up to 2 GHz).

When I buy Belden (or Times) I know what I am getting, its quality and consistency. I also purchase some coax versions by Press, TheWireman. http://thewireman.com/index.shtml

I have known Press a number of years, and will ask him to look at the shielding, braid and jacket formulations. The especially like his marine RG-8X which meets unique marine and water/wet installations.

As for RadioShack, I do not use them for coax purchases. They are becoming a cell phone retailer (and battery operated toys for Christmas) in many parts of the country.

Allied Radio is no longer part of RadioShack - and it shows. While some franchise owners and stores work to meet local needs, I do not find this on a nationwide basis.

GB

# 1547. Re: 15m Vertical Matching help

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-30 20:14:04 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <4183f41c$1_1@127.0.0.1>
Source record: 87342

Jonathan Laub wrote:
> What tools would you recommend to check both
> resonance and impedance with? MFJ seemed awful pricey.

If you think so, take a look at Tetronix and HP prices. :-)
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

# 1548. Re: How to tune UHV-6

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-30 22:05:37 UTC
From: Annette & LJ Dumas <nettski@worldnet.spinelessspammers.att.net>
Message-ID: <ReUgd.46072$OD2.7216@bgtnsc05-news.ops.worldnet.att.net>
Source record: 87343

I tuned mine (with able assistance of Bob, WV7W) by putting one
resonator/coil on top, tuning it, removing it, then repeating; so each coil
was tuned independently of the others. Then, I tested it with all coils (I
have all six - 3.5,7,14,21,24 & 28) attached. It's worked for over a year
so far.

73!

Joe
N2LJD

"Estel J. Hines" <ejhines@comcast.net> wrote in message
news:W_Sdnch3LZqYBuTcRVn-sg@comcast.com...
> I have the Comet UHV-6, and the instructions don't say how it should be
> tuned (sequence, etc.).
>
> It has 440/2 meter/6 meter in the basic configuration, and I am having
> trouble getting the right swr on it, I have an swr meter.
>
> Could someone tell me which sequence should be used?
>
> Thanks for any help,
>
> Estel J. Hines
>
>

# 1549. Re: 15m Vertical Matching help

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-30 22:15:57 UTC
From: Jonathan Laub <wd0bka@netscape.net>
Message-ID: <10o84kvgcmnmic9@news.supernews.com>
Source record: 87344

w9gb wrote:
> "J. Laub" <wd0bka@netscape.net> wrote in message
> news:10o5oubahfqjd30@news.supernews.com...
>
>>I'd like to construct a 15m vert that does not require use of my MFJ Versa
>>Tuner II. Portability. I started over this afternoon on a new vertical
>>using plans from a web site.
>>
>>WIRING:
>>I've suspended an 11'1" #12 wire for 15 inside some pvc. (While I was at
>>it I also suspended a 16'5" #12 wire inside the same piping for 20m.)
>>
>>RADIALS:
>>I've got six underground radials, 2 @ 11' and 4 @ 5-1/2"
>>
>>FEEDER & CONNECT POINT:
>>Using 52ohm RG58 (the thin stuff) to feed into a female coax chassis mount
>>at base of system. I have a small (maybe 4") of line from the center of
>>the chassis mount leading to the connection point bolt/wing nut for
>>each/either wire. This wire is 4" and I suspect this 4" may cause some
>>electrical lengthening right? If it does, I'm over on measurements for
>>each. errr....
>>
>>Other than this possible lengthening, I cannot think of what else to do.
>>
>>In short, I should probably borrow a dip meter and check for impedance
>>problem? I was reading that I should attach a silver mica capacitor
>>across the wires. Haven't tried this yet as they are still in the mail.
>>
>>I was thinking ahead too when I put this stinker up. I've got a 22-turn
>>base coil sitting there as my next try but that sort of defeats my
>>original simplicity plan.
>>
>>73's-
>>
>>-=Jon
>>
>
>
> You may have to use the base coil to properly match this vertical. A 1/4
> wave (with a reflected image - Marconi style) will have a 36 ohm impedance
> at the feedpoint.
> http://pages.intnet.mu/ingepru/antenna.htm
>

> gb
>
>
Unexpected success. On the 16'5" leg of the antenna by dumb luck of
where I place the alligator jumpers found a 1.3 match on 40m! Though
this is not the freq where the antenna is supposed to be operated on it
does tell me that the coil is working. Once I get my hands on ant
analyzer I think it'll live.

# 1550. Re: Gain per unit length of boom

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-30 22:16:09 UTC
From: derekunwin@optusnet.com.au
Message-ID: <23b604cf.0410301416.4ce846e3@posting.google.com>
Source record: 87345

Richard Clark <kb7qhc@comcast.net> wrote in message
news:<0g97o0h5hepbfghrphjk347pj7c8k2tthi@4ax.com>...
> On 30 Oct 2004 03:29:59 -0700, derekunwin@optusnet.com.au (Derek
> Unwin) wrote:
>
> > At the time of writing I have been informed he is recovering and
> >hopes to be home in about a week or so.
> >
> > Regards Derek unwin
>
> Hi Derek,
>
> I hope all goes well without complications for your father.
>
> 73's
> Richard Clark, KB7QHC

Hi Richard
Thank you for your kind regards, I am sure Art will appreciate them.
I must point out I am his brother.
Regards Derek.

# 1551. Re: New Smith Chart Program - "SmartSmith"

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-30 23:52:24 UTC
From: Barnacle Bill <quahog@fish.net>
Message-ID: <10o8a9o42sugjf6@corp.supernews.com>
Source record: 87346

In article <hzRgd.86644$kz3.76769@fed1read02>, Ed Price wrote:
>
> "Old Ed" <eXseniorsDeleteThisAndTheX@earthlink.net> wrote in message
> news:ZQQgd.13066$KJ6.5864@newsread1.news.pas.earthlink.net...
>> Hi Bob -
>>
>> Thank you very much for making these available!
>>
>> I just downloaded SmartSmith from your qsl.net links,
>> and I'm looking forward to trying it.
>>
>> BTW, qsl.net WAS spectacularly slow, averaging
>> 0.5 kB/s. It's a good thing this was "only" 2MB.
>>
>> 73, Ed, W6LOL
>>
>>
>
> Yes, thanks from me too. I see what some posters have mentioned about your
> host being slow; that 2MB took over 30 minutes to download for me. There's
> plenty of time to go off and do something else while the transfer completes!
><g>
>
> Ed
> wb6wsn
>

Some of us have gotten spoiled rotten by our wideband connections. I for
one have a T1 at work and do most of my downloading there. Maybe it's time
to step back, take a deep breath, and recall when we had a 1200 baud modem!
;^)

BB

# 1552. Re: Gain per unit length of boom

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-31 00:27:50 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <akWgd.2749$zx1.2705@newssvr13.news.prodigy.com>
Source record: 87347

Derek Unwin wrote:
> Richard Clark <kb7qhc@comcast.net> wrote in message
news:<0g97o0h5hepbfghrphjk347pj7c8k2tthi@4ax.com>...
>
>>On 30 Oct 2004 03:29:59 -0700, derekunwin@optusnet.com.au (Derek
>>Unwin) wrote:
>>
>>
>>> At the time of writing I have been informed he is recovering and
>>>hopes to be home in about a week or so.
>>>
>>>Regards Derek unwin
>>
>>Hi Derek,
>>
>>I hope all goes well without complications for your father.
>>
>>73's
>>Richard Clark, KB7QHC
>
>
>
> Hi Richard
> Thank you for your kind regards, I am sure Art will appreciate them.
> I must point out I am his brother.
> Regards Derek.

Hi Derek,
here's hoping Art will be back on here shortly, hearty and
hale and ready to tell us more about his ideas.
73,
Tom Donaly, KA6RUH

# 1553. Re: New Butternut question (tunung stub)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-31 02:17:39 UTC
From: Mike Coslo <mcoslo@adelphia.net>
Message-ID: <RLOdneTug_fc1hncRVn-tw@adelphia.com>
Source record: 87348

Brian Kelly wrote:

> Mike Coslo <mjc5remove@psu.edu> wrote in message news:<417FBEC5.9010402@psu.edu>...
>
>>Larry Clark wrote:
>>
>>>Mike Coslo wrote:
>>>
>>>
>>>>On my HF6V, it calls for a "tuning stub" of a 1/4 wavelength to tune
>>>>the antenna at 20 meters. The stub is made of 75 ohm coax, and is
>>>>11'4" long, after which the rest of the coax to the shack is 50 ohm.
>>>>
>>>> How exactly does this work? There is an explanation of sorts in
>>>>the manual, but nothing I can sink my teeth into.
>>>>
>>>> One of the first things I trip over is that an 11'4" piece of 75
>>>>ohm coax is not a quarter wave in the 20 meter band - more like 17+ MHz.
>>>>
>>>> The book notes that the 20 meter portion is more like 100 ohms,
>>>>and the stub allows your rig to see 50.
>>>>
>>>> If the antenna works, that's cool, but I'd sure like to know a
>>>>little more detail.
>>>>
>>>> - Mike KB3EIA -
>>>>
>>>
>>>are you accounting for velocity factor?
>>
>>
>> They do have different lengths for different dielectrics. solid
>>dielectric is the 11 foot +, and foam dielectric uses a 13 foot + length.
>>
>> It's likely that velocity factor is involved in that part.
>>
>>
>><<beginner alert!>>
>>
>>
>> Lessee if I have this correct here. Pardon if I seem a little slow, as
>>I'm new at this.
>>
>>Since I calculated 16' 6" inch for the middle of the 20 meter band.

>>
>>And they are using 11' 4" of solid dielectric coax for a stub.
>>
>>11'4" is around 70 percent of the length of 16'6".
>>
>>So the solid dielectric velocity factor is around .70 correct?
>>
>>This would make the foam dielectric around .80 if I'm not all wet.
>>
>>looking at velocity factors for various cable types, I'm seeing from .66
>>to .85.
>>
>>Of course I don't know where they calculated the exact frequency for,
>>and this antenna probably has some other interactions, but it seems to
>>be in the ballpark.
>>
>> Is this solid, or nonsense?
>
>
>
> You have the basics OK Mike. Calculated lengths are fuzzy things, the
> trick is getting the length right out in the yard with the specific
> coax you have on hand. For 1/4 wave cutting purposes coax matching
> setions can be designed the same way coax harmonic filter stubs are
> designed.
>
> There's a bunch of info on the topic in the K1TTT website and it
> applies to both matching and filter line lengths.
>
> http://www.k1ttt.net/technote/onestub.html
>
> http://www.k1ttt.net/technote/stubs.html

Thanks, Brian. Fascinating material.

> But then comes the realities, measuring the results of your trimming
> process to find out if you really do have a good 1/4 wave line when
> it's done. The handiest way to do this is with an antenna analyzer.
> The manuals for the MFJ 259/269 analyzers illustrate (educate) how it
> can be done rather simply with any analyzer and can be downloaded as a
> .pdf from the MFJ website.
>
>
>
>> - Mike KB3EIA -
>>
>>Now I wonder how that all ties in with changing that 100 Ohm impedance
>>to 50 Ohms?
>
>
> See chapter 26-6 of the ARRL handbook (19th ed., 2000) "Coupling the

> Line to the Antenna".
>
> Za = Antenna feedpoint impedance = 100 ohms
> Zf = Feedline impedance = 50 ohms
> Zm = Required characteristic impedance of a 1/4 wave matching section
> = ?
>
> Zm = Square root of (Za ï¿½ Zf)= ?
> Zm = square root of (50 ï¿½ 100) = 71 ohms.

Thanks again, Brian. I did the stub at their reccomended length, and it works well. 1.5:1 across the whole 20 meter band, and now the upper bands are in line also. Fascinating, I'm gonna do my homework now! 8^)

- Mike KB3EIA -

# 1554. Re: New Smith Chart Program - "SmartSmith"

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-31 02:40:26 UTC
From: w9dmk@crosslink.net
Message-ID: <41844edc.52300494@news.crosslink.net>
Source record: 87349

On Sat, 30 Oct 2004 23:52:24 -0000, Barnacle Bill <quahog@fish.net>
wrote:

>Some of us have gotten spoiled rotten by our wideband connections. I for
>one have a T1 at work and do most of my downloading there. Maybe it's time
>to step back, take a deep breath, and recall when we had a 1200 baud modem!

Dear BB,

Amen!

My first experience with "dial-up" was in 1965. I was asked to try out
a program in Basic that designed electric motors. You had to dial up
this big main frame in Boston - Dartmouth, I think. We had a teletype
as a terminal and an acoustic modem at 300 baud. The acoustic modem
was a telephone handset with sponge cups for earpiece and mouthpiece
that snugged around the telephone handset. Acoustic coupling means no
electric connection - good for lightning isolation - Hi!

You typed in your Basic program and tried it out. If you wanted to pay
a monthly fee for storage you could save your typed in program on
their disk for a monthly fee. Talk about a text based interface -
primitive doesn't even begin to describe it.

I am tickled to have V.90 at somewhere above 33 kBaud. It makes your
head swim to think about where it will be 5 years from now.
Bob, W9DMK, Dahlgren, VA
http://www.qsl.net/w9dmk

# 1555. Re: New Smith Chart Program - "SmartSmith"

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-31 03:46:15 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41845e16$1_3@127.0.0.1>
Source record: 87350

Barnacle Bill wrote:
> Maybe it's time
> to step back, take a deep breath, and recall when we had a 1200 baud modem!

I remember saving up for a 300 baud modem.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

# 1556. Re: New Smith Chart Program - "SmartSmith"

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-31 03:51:46 UTC
From: Barnacle Bill <quahog@fish.net>
Message-ID: <10o8oaik7gk0u1c@corp.supernews.com>
Source record: 87351

In article <41845e16$1_3@127.0.0.1>, Cecil Moore wrote:
> Barnacle Bill wrote:
>> Maybe it's time
>> to step back, take a deep breath, and recall when we had a 1200 baud modem!
>
> I remember saving up for a 300 baud modem.

Remember when a 9600 baud modem was about $800? Hooking your office up by
UUCP...

Bill

# 1557. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-31 04:05:42 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <418462a6$1_3@127.0.0.1>
Source record: 87352

Cecil Moore wrote:

Seems everyone must be suffering from post tramatic syndrome on this one.

Here's the bottom line.
Does a center-loaded mobile antenna have a cosine current distribution? No.

Does just the coil have a cosine current distribution? Close to one but
it may not start at zero degrees like a thin-wire dipole does.

Does displacement current have an effect? Yes, but the effect is
close to the same for the forward current and reflected current.

Do I^2*R losses have an effect? Yes, but the effect is close to
the same for the forward current and reflected current.

Does radiation "loss" have an effect? Yes, but the effect is close
to the same for the forward current and reflected current.

Whatever effects exist that affect the current, the forward current
and reflected current are affected close to equally.

The net current anywhere on the antenna is still the phasor sum of
whatever forward current and reflected current exists at that point.

Any phase shift through the coil is multiplied by two by the two
currents traveling in opposite directions with opposite rotations.

Can one subtract the number of degrees occupied by the conductors
from 90 degrees to get the number of degrees occupied by the coil?
No, it's not that simple.

Is the current at the top of the coil higher than predicted by the
above simple calculation? Yes.

Does the coil occupy zero degrees? No.

If the coil doesn't occupy zero degrees, the net current at the bottom
of a coil and at the top of the coil cannot be the same value when the
coil is located in the middle of an electrical 1/4WL antenna.

Are there special cases where the magnitude of the current at the top
and bottom of a coil can be equal? Of course, but the typical loaded
mobile antenna is not one of those special cases!
--
73, Cecil, W5DXP

----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups

---= East/West-Coast Server Farms - Total Privacy via Encryption =---

# 1558. Coax antenna for aircraft, help.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-31 05:10:10 UTC
From: "Carl J. Hixon" <cjhixon1@cox.net>
Message-ID: <jo_gd.85932$hj.69553@fed1read07>
Source record: 87353

I saw the following antenna being made by some ultralight guys in San Diego. I was wondering what to think of this. I am new to antennas and just starting down the path to hamdom. Anything I need to know before starting to experiment with making one? I don't want to fry my only radio, a Vertex Standard VX-700.

Below are the plans for an antenna which does not require a ground plane.

This antenna is a 1/2 wave vertical dipole made out of RG-58/U coax and a Radio shack FM radio antenna. The beauty of this design is that it is cheap, simple, and easy to make with readily available materials. The radiator should be 3', 9 1/2 inches long for 123.450 operation, but only the top foot or two needs to be the telescoping FM radio antenna. Or, you can make the entire radiator length out of regular antenna wire if you wish. The only critical thing is the total length.

Start out with enough coax so that you will have enough to run up to the radio from your antenna mounting location.

First, solder the telescoping antenna to the middle conductor on the coax. Make sure to strip back the shield far enough so that it does not short to the "radiator" or telescoping part of the antenna. Remember, you can make the "radiator" entirely out of the center conductor on the coax, so if you are going to do that, you must make sure the dimensions are correct. Next, on the other end of the coax, I cut off a piece of coax that is going to be the shorting stub. In all cases, I always make the lengths to the long side. This way the antenna can be trimmed in to the desired frequency with a SWR bridge.

To connect the shorting stub to the feedline, carefully remove a small section of insulation from the center conductor (no more than 1/4 of an inch). Solder and tape the inner conductor, then join and solder the shields. To insure proper shielding, split a spare piece of braid lengthwise on top of the shield connection, and carefully solder the shield together. (Rather than disecting the coax cable and soldering, we used a BNC connector for the shorting stub. We then trimed back for tuning and ended up with almost no wire needed on the shorting stub. VERY SHORT.)

Don't forget to put a BNC connector on the radio end.

Finally, hang up your antenna in an open space, and tune it in with a SWR meter. I have found that adjusting the length of the shorting stub has the most affect in adjusting for minimum SWR but be careful. If you cut too much off you will have to re-do it.

Radiator Length: 3' 9.5"
Radiator to shorting stub: 12.9"

Shorting Stub: 1.9" (imagine no BNC connector when
measuring)

QUESTIONS:

(1) So how do I calculate lengths for other frequencies? ie 121.5MHz,
146.73MHZ, 123.0 MHz
(2) Any chance of damaging my Vertex Standard VX-700 if I start playing
around with this?
(3) Where can I finde a descent but cheap SWR meter?

Thanks,
Carl

# 1559. Re: Coax antenna for aircraft, help.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-31 06:06:19 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <uiv8o0d6eps6f84rfmhq1u4bh9p1cn6f1c@4ax.com>
Source record: 87354

On Sat, 30 Oct 2004 22:10:10 -0700, "Carl J. Hixon" <cjhixon1@cox.net>
wrote:
Hi Carl,

By the numbers:
>(1) So how do I calculate lengths for other frequencies? ie 121.5MHz,
>146.73MHZ, 123.0 MHz
By the proportion to the original frequency (this is called scalable).
This usually implies thickness too, but the variation of your
frequencies is slight enough to disregard. Besides, you need to
anticipate some trimming using the SWR meter you are asking for in
(3).

>(2) Any chance of damaging my Vertex Standard VX-700 if I start playing
>around with this?
Not particularly for low power and modest SWR (and probably not even
immodest SWR).

>(3) Where can I finde a descent but cheap SWR meter?
Radio Shack.

73's
Richard Clark, KB7QHC

# 1560. Re: 15m Vertical Matching help

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-31 07:24:00 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0410302324.57d7f373@posting.google.com>
Source record: 87355

"J. Laub" <wd0bka@netscape.net> wrote in message
news:<10o5oubahfqjd30@news.supernews.com>...
> I'd like to construct a 15m vert that does not require use of my MFJ
> Versa Tuner II. Portability. I started over this afternoon on a new
> vertical using plans from a web site.
>
> WIRING:
> I've suspended an 11'1" #12 wire for 15 inside some pvc. (While I was
> at it I also suspended a 16'5" #12 wire inside the same piping for 20m.)

That may be half of your problem. #1, the PVC may be effecting the
overall length of the wire a bit. #2, if you have another vertical
wire right next to it, they will couple and all bets are off. You are
not tuning on 15 because with that extra 20m wire next to it, you are
now too long I bet.
>
> RADIALS:
> I've got six underground radials, 2 @ 11' and 4 @ 5-1/2"

Another comment...Ground mounting a 15 or 20 meter vertical is never
going to be that great a performer. You would be much better off with
something elevated off the ground. Of course, I realize this may not
be possible in your case.
>
> FEEDER & CONNECT POINT:
> Using 52ohm RG58 (the thin stuff) to feed into a female coax chassis
> mount at base of system. I have a small (maybe 4") of line from the
> center of the chassis mount leading to the connection point bolt/wing
> nut for each/either wire. This wire is 4" and I suspect this 4" may
> cause some electrical lengthening right?

Right...
>If it does, I'm over on
> measurements for each. errr....

errrr....Yep, that, and the 20m wire, and you are probably way too
long...
>
> Other than this possible lengthening, I cannot think of what else to do.
>
> In short, I should probably borrow a dip meter and check for impedance
> problem? I was reading that I should attach a silver mica capacitor
> across the wires. Haven't tried this yet as they are still in the mail.

You should not need *anything* to match a 1/4 wave vertical. I know I
never have, on any band, or with any ground condition. If it doesn't

tune at least under 2:1 SWR, something is wrong... Like running two
verticals an inch apart...
You also shouldn't need any fancy analysers...I've never owned one
myself, and I don't have any trouble.
>
> I was thinking ahead too when I put this stinker up. I've got a 22-turn
> base coil sitting there as my next try but that sort of defeats my
> original simplicity plan.

You shouldn't need it. Just curious...If this is going to be a
portable antenna, what are you going to do about radials? Are you
going to add ground radials at each location? What a pain....
For a portable 15 m vertical, I would use something like a base fed
half wave.
Can be mounted anywhere, no radials are needed. Can be elevated, or
near the ground, although the higher the better. But, you can get what
you have to work, if you ditch the 20m wire that is next to the 15 in
the PVC. Or at the least, ditch it until you get the other band tuned.
In the real world, if you tried to make such a dual band antenna, it
would be best to tune 20 first, and then 15. But I don't really
recommend you doing that as it's a PIA to tune. I'm almost sure thats
most of the trouble you are having. The PVC could be effecting the
overall length also. MK

# 1561. Re: New Smith Chart Program - "SmartSmith"

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-31 08:54:54 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <IQ1hd.87484$kz3.53873@fed1read02>
Source record: 87356

"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:41845e16$1_3@127.0.0.1...
> Barnacle Bill wrote:
>> Maybe it's time
>> to step back, take a deep breath, and recall when we had a 1200 baud
>> modem!
>
> I remember saving up for a 300 baud modem.
> --
> 73, Cecil http://www.qsl.net/w5dxp

Don't know why you needed a 300 baud modem, what with using that TTY-33 ASR
at 110 baud. <g>

Ed
wb6wsn

# 1562. Re: New Smith Chart Program - "SmartSmith"

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-31 13:39:24 UTC
From: Bob Miller <rmiller47@satx.rr.com>
Message-ID: <bkq9o0t1eh0m5tevv00vtr5cpoavk46qc6@4ax.com>
Source record: 87357

On Sat, 30 Oct 2004 23:52:24 -0000, Barnacle Bill <quahog@fish.net>
wrote:

>>
>
>Some of us have gotten spoiled rotten by our wideband connections. I for
>one have a T1 at work and do most of my downloading there. Maybe it's time
>to step back, take a deep breath, and recall when we had a 1200 baud modem!
>;^)
>
>BB

I still have my little Radio Shack Model 100 portable pc, with its
mighty 300-baud modem. Them was the times...

bob
k5qwg

# 1563. OT was: New Smith Chart Program - "SmartSmith"

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-31 14:17:20 UTC
From: Wes Stewart <n7ws_@_yahoo.com>
Message-ID: <rss9o0hvmd043s357sqqe660kr4cgbatmd@4ax.com>
Source record: 87358

On Sun, 31 Oct 2004 02:40:26 GMT, w9dmk@crosslink.net (Robert Lay
W9DMK) wrote about broadband:

[snip]
| It makes your
|head swim to think about where it will be 5 years from now.
|Bob, W9DMK, Dahlgren, VA

Colin Powell's little boy will be giving us BPL any day now and our
problems will be over. [g]

Interesting that CFR Title 47 part 97 states in part:

"Sec. 97.1 Basis and purpose.
The rules and regulations in this part are designed to provide an
amateur radio service having a fundamental purpose as expressed in the
following principles:
(a) Recognition and enhancement of the value of the amateur
service to the public as a voluntary noncommercial communication
service, _particularly with respect to providing emergency
communications_." (emphasis added)

And yet the ARRL reports on the latest BPL news:

"We similarly do not find that Amateur Radio frequencies warrant the
special protection afforded frequencies reserved for international
aeronautical and maritime safety operations," the Commission said.
"While we recognize that amateurs may on occasion assist in providing
emergency communications," the FCC added. It described typical amateur
operations as "routine communications and hobby activities."

I guess during the next forest fire, earthquake, tornado, hurricane,
boating accident or terrorist attack we can just sit back and play
with our toys while all of the real communications takes place on the
Internets, as GWB would say.

# 1564. Re: Skywire coax cable vs. regular coax cable

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-31 14:26:41 UTC
From: "J. Mc Laughlin" <jcm@power-net.net>
Message-ID: <10o9tf6gdhd8t04@corp.supernews.com>
Source record: 87359

For outdoor, flexible coax I have found that Bury-Flex (TM) from Davis is ideal. This link takes you to the part of his site where quality coax may be found:
http://www.davisrf.com/ham1/coax.htm

It is daft not to use good coax. As others have observed, No-Brand and RS should be avoided.
73 Mac N8TT

--
J. Mc Laughlin; Michigan U.S.A.
Home: JCM@Power-Net.Net

# 1565. anyone have any info on "BOBCAT CURTAIN" antenna???

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-31 14:38:52 UTC
From: Bill Reed <billreed@w4pls.com>
Message-ID: <0O6hd.812388$Gx4.382387@bgtnsc04-news.ops.worldnet.att.net>
Source record: 87360

[No readable article body recovered]

# 1566. Re: anyone have any info on "BOBCAT CURTAIN" antenna???

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-31 14:59:06 UTC
From: Frank <ve6cb@NOSPAM.telus.net>
Message-ID: <_47hd.35272$VA5.4916@clgrps13>
Source record: 87361

"Bill Reed" <billreed@w4pls.com> wrote in message
news:0O6hd.812388$Gx4.382387@bgtnsc04-news.ops.worldnet.att.net...

That would probably a "Bob Tail Curtain" antenna. A search on the web will
find many references, including the one below.

Regards,

Frank

http://www.n8sfc.com/bobtail.html

# 1567. Re: anyone have any info on "BOBCAT CURTAIN" antenna???

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-31 15:40:07 UTC
From: k9sqg@aol.com
Message-ID: <20041031104007.03671.00003283@mb-m04.aol.com>
Source record: 87362

Bill,

I've never heard of that particular antenna. However, there is a Bobtail Curtain which is an "expanded" version of a half-square.

73s,

Evan

# 1568. Re: half antenna better than full??? How is this possible?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-31 16:24:12 UTC
From: Mike <km6ab@pacbell.net>
Message-ID: <Mk8hd.2932$zx1.1950@newssvr13.news.prodigy.com>
Source record: 87363

I see a few TV antennas in my neighborhood that are pointed exactly
180deg the wrong direction with the longest elements toward the station
and the ï¿½top wing boomï¿½ end pointed away from the station. This usually
happens in clusters, where one neighbor looks next door to see where the
antenna is pointed (wrong), and so onï¿½.
If this were the case it would explain diminishing UHF signal strength
due to the higher front to back ratio when the corner reflector elements
are installed.
Mike

Daniel wrote:
> I just finished re-directing my TV antenna in the attic to some
> favorite stations and boy it looks fabulous. :-)
>
> However, I came across a very interesting phenomenon to which I have
> no explanation: if I install the two "Top Wing Boom" elements that
> come with the antenna, I get significantly worse reception. If I
> removed them (as the situation is now), I get close to perfect
> reception.
>
> Is there an explanation to this?
>
> The antenna is a Radio Shack VU-90XR VHF/UHF/ FM Antenna 150-2152.
> Overview: http://tinyurl.com/52tjr
> Manual: http://tinyurl.com/6yyke
>
> I am just curious, that's all. :-)
>
> Daniel

# 1569. Re: New Smith Chart Program - "SmartSmith"

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-31 17:08:15 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <f4ednVhQtvBqhhjcRVn-tA@comcast.com>
Source record: 87364

"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:41845e16$1_3@127.0.0.1...
> Barnacle Bill wrote:
>> Maybe it's time
>> to step back, take a deep breath, and recall when we had a 1200 baud
>> modem!
>
> I remember saving up for a 300 baud modem.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>
> ----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet
> News==----
> http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000
> Newsgroups
> ---= East/West-Coast Server Farms - Total Privacy via Encryption =---

Around 1970, our regular terminals were TTY, and High speed was an IBM 2741 (I think); blazing fast at 300 bps, faster than you could type. A few years later we had 9600 dial up service to the West Coast, but had to use two modems and dial two telephone numbers.

Tam/WB2TT

# 1570. Re: Coax antenna for aircraft, help.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-31 17:33:03 UTC
From: "NN7Kex<NOSPAM>k7zfg" <"NN7Kex<NOSPAM>k7zfg"@sbcglobal.net>
Message-ID: <jl9hd.15866$6q2.624@newssvr14.news.prodigy.com>
Source record: 87365

Richard Clark wrote:

> On Sat, 30 Oct 2004 22:10:10 -0700, "Carl J. Hixon" <cjhixon1@cox.net>
> wrote:
> Hi Carl-

Tho, the rest are ok- must disagree on the SWR bridge, as some of those cheap
ones (Swan Electronics was a good example, among others) used lousey sampleing
circuits in their directional couplers. What does this do?? well, as these
are NOT even close to 50 ohm , and a substancial part of a 1/4 wave, actually
introduce a mismatch! It is easy to test for- simply terminate the antenna
with a 47 ohm 2 watt resistor, and measure the swr -should be 1:1-- then reverse
the meter and measure the swr -backwards (set the pot , in the REFLECTED position
then measure the swr in the Calibrate (or forward) position again should read 1:1
I have seen some (like the swan) reading greater than 3:1 at even 6 meters! Also,
on very high swrs, have actually seen "more" power return than was in the calibrate
position (a impossible situation !) This is caused you the lousey directional couplers
in the meter, itself!
These were made for CB, not for VHF! If it doesn't pass this test- would be a good idea
to try another brand or (perferaably) borrow a Bird (or equivalent). As information--
Jim NN7K
>
>>(3) Where can I finde a descent but cheap SWR meter?
>
> Radio Shack.
>
> 73's
> Richard Clark, KB7QHC

--
To reply, remove the <NOSPAM>

# 1571. Re: New Smith Chart Program - "SmartSmith"

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-31 19:58:24 UTC
From: Walter Maxwell <w2du@iag.net>
Message-ID: <1ogao052op09o75mcsb145gt6mcgulaaeg@4ax.com>
Source record: 87366

On Sun, 31 Oct 2004 02:40:26 GMT, w9dmk@crosslink.net (Robert Lay W9DMK) wrote:

>Dear BB,
>
>Amen!
>
>My first experience with "dial-up" was in 1965. I was asked to try out
>a program in Basic that designed electric motors. You had to dial up
>this big main frame in Boston - Dartmouth, I think. We had a teletype
>as a terminal and an acoustic modem at 300 baud. The acoustic modem
>was a telephone handset with sponge cups for earpiece and mouthpiece
>that snugged around the telephone handset. Acoustic coupling means no
>electric connection - good for lightning isolation - Hi!
>
>You typed in your Basic program and tried it out. If you wanted to pay
>a monthly fee for storage you could save your typed in program on
>their disk for a monthly fee. Talk about a text based interface -
>primitive doesn't even begin to describe it.
>
>I am tickled to have V.90 at somewhere above 33 kBaud. It makes your
>head swim to think about where it will be 5 years from now.
>Bob, W9DMK, Dahlgren, VA
>http://www.qsl.net/w9dmk

Hi Bob, thanks for the new Smith program. I did have a problem downloading it, and still don't know if it's all there.

We're returning to Florida early tomorrow morning, and once I get the external drive connected down there I'll determine if your program is in working order. If not, I'll email you for a new download.

So far, it looks like a real winner!

Walt

# 1572. Re: Is that a radio wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-31 20:04:31 UTC
From: Chuck <wa7rai@raibeam.com>
Message-ID: <%zbhd.3210$GN4.3006@okepread02>
Source record: 87367

Tom Ring <news0000@taring.org> wrote in message
news:417ee298$0$91012$39cecf19@news.twtelecom.net...
> political commentary wrote:
>
> >
> > The point is you want to elect a cheater.
> >
> > Thats not a very smart thing to do is it?
> >
> >
>
> You mean as opposed to a confessed war criminal, who in congressional
> hearings admitted to burning villages, killing innocent women and
> children, and shooting unarmed enemy soldiers in the back as they ran?
> That kind of thing? Like Kerry?
>
Tom,

Kerry went to congress to parrot the issues
of other Viet Nam vets. The repugnant party
- the party of lies and deception - spins this
event to malign a true war hero.

http://freerepublic.com/focus/f-news/1097982/posts

In contrast... any leader who's army invades
a sovereign country that is not an immediate
threat to the invading country, is, according to
international law, a war criminal.

Yes, Saddam was a first-class jerk and two-
bit tyrant, but was not an immediate threat to
America - he lost 2 wars and was sanctioned
by the UN - his army was left impotent, his
major weapons were destroyed after the gulf
war, his WMD programs were in shambles,
and there were no proven ties to al Queda.

GWB is a war criminal - too bad you support
a real war criminal - and that's not spin.

Chuck

> tom
> K0TAR
>

>

## 1573. Re: Is that a radio wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-31 21:01:40 UTC
From: "NN7Kex<NOSPAM>k7zfg" <"NN7Kex<NOSPAM>k7zfg"@sbcglobal.net>
Message-ID: <Uochd.3014$zx1.585@newssvr13.news.prodigy.com>
Source record: 87368

Chuck wrote:
> Tom Ring <news0000@taring.org> wrote in message
> news:417ee298$0$91012$39cecf19@news.twtelecom.net...

>< SNIP >
> In contrast... any leader who's army invades
> a sovereign country that is not an immediate
> threat to the invading country, is, according to
> international law, a war criminal.

You mean like Roosevelt attacking GERMANY ?? Or
TRUMAN attacking North Korea ??

>
> Chuck
>
>
>>tom
>>K0TAR

--
To reply, remove the <NOSPAM>

# 1574. Re: Skywire coax cable vs. regular coax cable

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-31 22:11:12 UTC
From: desmoface@aol.com
Message-ID: <20041031171112.10414.00003872@mb-m23.aol.com>
Source record: 87369

>For outdoor, flexible coax I have found that Bury-Flex (TM) from Davis is
>ideal. This link takes you to the part of his site where quality coax may
>be found:
>http://www.davisrf.com/ham1/coax.htm

I used bury flex when I put up my 80 meter loop last year..burried about 20 ft
of it..so far so good..the stuff is very rugged..works good lasts long time..

Steve
kb8viv

# 1575. Re: New Smith Chart Program - "SmartSmith"

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-31 22:15:38 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cm3o69$s9b$1@titan.btinternet.com>
Source record: 87370

Smith Charts went out of date wth slide rules and log tables with the advent
of the pocket calculator.

Be real engineers. Get yourselves into the 21st century.
---
Reg

# 1576. Re: Is that a radio wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-31 22:49:09 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <qZdhd.87705$kz3.49376@fed1read02>
Source record: 87271

"Chuck" <wa7rai@raibeam.com> wrote in message
news:%zbhd.3210$GN4.3006@okepread02...
> Yes, Saddam was a first-class jerk and two-
> bit tyrant, but was not an immediate threat to
> America - he lost 2 wars and was sanctioned
> by the UN - his army was left impotent, his
> major weapons were destroyed after the gulf
> war, his WMD programs were in shambles,

But Sadaam PROMISED us the "mother of all battles". We had to assume he was armed to the teeth. If you can't trust a guy like Sadaam to make a threat meaningful, gee, who can you trust?

> GWB is a war criminal - too bad you support
> a real war criminal - and that's not spin.

Indeed Chuck, that's not spin. I'd call you an honest, straightforward propagandist; what we used to simply refer to as a liar.

Ed
wb6wsn

# 1577. Re: New Smith Chart Program - "SmartSmith"

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-31 23:09:31 UTC
From: jgboyles@aol.com
Message-ID: <20041031180931.17053.00001974@mb-m26.aol.com>
Source record: 87272

>Smith Charts went out of date wth slide rules and log tables with the advent
>of the pocket calculator.
>
>Be real engineers. Get yourselves into the 21st century.

Hi Reg, Since this is an Amateur Radio Newsgroup, why do you think we should all be real engineers? Do you write all of your excellent programs for the sole benefit of the real engineers?
I have used your programs, Smith Chart Programs, and a number of others that I have found to sucessfully design antennas and matching networks. If I had to choose between your programs and the Smith Chart, I would have to say I like both.
73 Gary N4AST

## 1578. Re: Is that a radio wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-31 23:34:00 UTC
From: Chuck <wa7rai@raibeam.com>
Message-ID: <rQehd.3216$GN4.756@okepread02>
Source record: 87273

NN7Kex<NOSPAM>k7zfg k7zfg @sbcglobal.net> <"NN7Kex<NOSPAM> wrote in message
news:Uochd.3014$zx1.585@newssvr13.news.prodigy.com...
> Chuck wrote:
> > Tom Ring <news0000@taring.org> wrote in message
> > news:417ee298$0$91012$39cecf19@news.twtelecom.net...
>
> >< SNIP >
> > In contrast... any leader who's army invades
> > a sovereign country that is not an immediate
> > threat to the invading country, is, according to
> > international law, a war criminal.
>
> You mean like Roosevelt attacking GERMANY ??

Germany was a direct threat to the entire world,
let alone the USA.

> Or TRUMAN attacking North Korea ??

The N. Korea conflict was a UN operation.

Want to try again?

Chuck

# 1579. Re: Is that a radio wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-10-31 23:47:32 UTC
From: Chuck <wa7rai@raibeam.com>
Message-ID: <sQehd.3217$GN4.1349@okepread02>
Source record: 87274

Ed Price <edprice@cox.net> wrote in message news:qZdhd.87705$kz3.49376@fed1read02...
>
> "Chuck" <wa7rai@raibeam.com> wrote in message
> news:%zbhd.3210$GN4.3006@okepread02...
> > Yes, Saddam was a first-class jerk and two-
> > bit tyrant, but was not an immediate threat to
> > America - he lost 2 wars and was sanctioned
> > by the UN - his army was left impotent, his
> > major weapons were destroyed after the gulf
> > war, his WMD programs were in shambles,
>
> But Sadaam PROMISED us the "mother of all battles". We had to assume he was
> armed to the teeth. If you can't trust a guy like Sadaam to make a threat
> meaningful, gee, who can you trust?

Do you honestly believe a de-fanged two-bit
tyrant is going to admit to the world he's
impotent? But then, true believers will believe
in just about anything that fits their illusions...

> > GWB is a war criminal - too bad you support
> > a real war criminal - and that's not spin.
>
> Indeed Chuck, that's not spin. I'd call you an honest, straightforward
> propagandist; what we used to simply refer to as a liar.

You mean like the debunked Swiftboat vets
for Bush, or WMDs that didn't exist, or the
immediate nuclear threat that didn't exist, or
al Queda links that never were, or how about
compassionate conservatism, or vote for
me or the terrorists will get you...

Propagandist indeed...

Chuck

>
> Ed
> wb6wsn
>

## 1580. Re: Is that a radio wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-01 00:15:12 UTC
From: "NN7Kex<NOSPAM>k7zfg" <"NN7Kex<NOSPAM>k7zfg"@sbcglobal.net>
Message-ID: <kefhd.15961$6q2.4930@newssvr14.news.prodigy.com>
Source record: 87275

Chuck wrote:
> NN7Kex<NOSPAM>k7zfg k7zfg @sbcglobal.net> <"NN7Kex<NOSPAM> wrote in message
> news:Uochd.3014$zx1.585@newssvr13.news.prodigy.com...
>
>>Chuck wrote:
>>
>>>Tom Ring <news0000@taring.org> wrote in message
>>>news:417ee298$0$91012$39cecf19@news.twtelecom.net...
>>
>>>< SNIP >
>>>In contrast... any leader who's army invades
>>>a sovereign country that is not an immediate
>>>threat to the invading country, is, according to
>>>international law, a war criminal.
>>
>>You mean like Roosevelt attacking GERMANY ??
>
>
> Germany was a direct threat to the entire world,
> let alone the USA.
>
>
>>Or TRUMAN attacking North Korea ??
>
>
> The N. Korea conflict was a UN operation.
>
> Want to try again?
>
> Chuck
>
>
Neither ATTACKED us, nor THREATENED US! To state otherwise
means GREMANY ATTACKED PEARL HARBOR. And, JUST WHAT GIVES THE UN
a free pass?? That institution , run by 3rd world DESPOTS, has any
creditability in the scheme of things, is like saying that Heidrich
loved the Jews, and was legitimate in the "benevolent treatment" of them,
during the war! The facts are that : KERRY is a admitted WAR CRIMINAL,
and comitted ATTROCITIES-- to state otherwise is to say that those
POW's that were tortured - deserved THAT TREATMENT- on Kerrys own testimony.
And, as WE WERE ATTACKED ON 9/11, we were as justified in retaliating
as in ANY period of time in the history of the Republic-- or are you
willing to SERVE A SUMMONS to these idiots, and say that they are being sued ??
To even try to justify your position is to beg for further attacks. But, I

guess you think that the World Trade Center was Justifiably attacked, or worse-
WE DESERVED IT ! Jim NN7K

--
To reply, remove the <NOSPAM>

# 1581. Re: New Smith Chart Program - "SmartSmith"

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-01 00:25:39 UTC
From: John Smith <kd5yikes@mindspring.com>
Message-ID: <cm3vqb0bv1@enews4.newsguy.com>
Source record: 87276

"JGBOYLES" <jgboyles@aol.com> wrote in message
news:20041031180931.17053.00001974@mb-m26.aol.com...
> >Smith Charts went out of date wth slide rules and log tables with the
> >advent
>>of the pocket calculator.
>>
>>Be real engineers. Get yourselves into the 21st century.
>
> Hi Reg, Since this is an Amateur Radio Newsgroup, why do you think we
> should
> all be real engineers? Do you write all of your excellent programs for
> the
> sole benefit of the real engineers?
> I have used your programs, Smith Chart Programs, and a number of others
> that
> I have found to sucessfully design antennas and matching networks. If I
> had to
> choose between your programs and the Smith Chart, I would have to say I
> like
> both.
> 73 Gary N4AST

You're much too tactful, Gary. Are you a politician?

John

# 1582. Re: Is that a radio wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-01 01:13:56 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <to1bo09r21uht7rpeot3ajhlrie2hm8drs@4ax.com>
Source record: 87278

On Mon, 01 Nov 2004 00:15:12 GMT, "NN7Kex<NOSPAM>k7zfg"
<"NN7Kex<NOSPAM>k7zfg"@sbcglobal.net> wrote:
>Neither ATTACKED us, nor THREATENED US!

Germany declared war on the United States 11 December 1941. When did
we attack them previous to that date?

Well, the answer to that is that the Destroyers Greer, Kearney and
Reuben James attacked German submarines. THIS is the Nazi explanation
for their declaration.

In fact, the USS Kearney, DD-432, was torpedoed by the U-568 on 17
October 1941. Six weeks before, the U-652 attacked the Greer.

Well, I suppose Roosevelt melted under pressure to leave Adolf alone,
but then we had the sinking of the Reuben James 30 October 1941 (63
years and a day ago).

For these affronts to their national dignity, the Nazis had no choice
but defend themselves against us - and, well, one thing led to another
as the saying goes.

>To state otherwise
>means GREMANY ATTACKED PEARL HARBOR. And, JUST WHAT GIVES THE UN
>a free pass?? That institution , run by 3rd world DESPOTS,

Was created by the United States, in San Francisco.

> The facts are that : KERRY is a admitted WAR CRIMINAL,
>and comitted ATTROCITIES
and Bush is crack smoker and was AWOL from assignment.

Just what makes either suitable? Because they are not the other?

73's
Richard Clark, KB7QHC

# 1583. Re: Is that a radio wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-01 01:14:52 UTC
From: Jack Painter <223bthp@cox.net>
Message-ID: <f6ghd.1084$ep3.1063@lakeread02>
Source record: 87277

"Chuck" <wa7rai@raibeam.com> wrote
> You mean like the debunked Swiftboat vets
> for Bush, or WMDs that didn't exist, or the
> immediate nuclear threat that didn't exist, or
> al Queda links that never were, or how about
> compassionate conservatism, or vote for
> me or the terrorists will get you...
>
> Propagandist indeed...
>
> Chuck

I'll go with spoiled brat.

# 1584. Re: Is that a radio wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-01 01:49:57 UTC
From: "NN7Kex<NOSPAM>k7zfg" <"NN7Kex<NOSPAM>k7zfg"@sbcglobal.net>
Message-ID: <9Dghd.15985$6q2.6239@newssvr14.news.prodigy.com>
Source record: 87280

Richard Clark wrote:

> On Mon, 01 Nov 2004 00:15:12 GMT, "NN7Kex<NOSPAM>k7zfg"
> <"NN7Kex<NOSPAM>k7zfg"@sbcglobal.net> wrote:
>
>>Neither ATTACKED us, nor THREATENED US!
>
>
> Germany declared war on the United States 11 December 1941. When did
> we attack them previous to that date?
>
> Well, the answer to that is that the Destroyers Greer, Kearney and
> Reuben James attacked German submarines. THIS is the Nazi explanation
> for their declaration.

Not to mention that Lend - Lease could be (argueably) considered an act of
war (certanly, NOT an act of Neutrality)!!

>
> In fact, the USS Kearney, DD-432, was torpedoed by the U-568 on 17
> October 1941. Six weeks before, the U-652 attacked the Greer.
>
> Well, I suppose Roosevelt melted under pressure to leave Adolf alone,
> but then we had the sinking of the Reuben James 30 October 1941 (63
> years and a day ago).
>
> For these affronts to their national dignity, the Nazis had no choice
> but defend themselves against us - and, well, one thing led to another
> as the saying goes.
>
>
>>To state otherwise
>>means GREMANY ATTACKED PEARL HARBOR. And, JUST WHAT GIVES THE UN
>>a free pass?? That institution , run by 3rd world DESPOTS,
>
>
> Was created by the United States, in San Francisco.

Yeh, and also the League of Nations- But I Repeat: Just WHAT gives
ANY of these folks the power to USURP ANY NATIONS National Sovernity ?

>>The facts are that : KERRY is a admitted WAR CRIMINAL,
>>and comitted ATTROCITIES
>
> and Bush is crack smoker and was AWOL from assignment.

Has he admitted to it ?? Kerry DID (see the NEW SOLDIER, authored by
Kerry, Himself!!)

> Just what makes either suitable? Because they are not the other?
>
> 73's
> Richard Clark, KB7QHC

But, also, then JUST WHAT GAVE US THE RIGHT TO DECLARE WAR ON ENGLAND,
so as to found our own independance?? Is George Washington, Jefferson,
Adams, Franklin, ect. to be considered criminals, or heros? Is Ho-Chi Minh
a Hero? Castro? Stalin? Guess it depends on just WHO views history, and from what
viewpoint! NN7K
--
To reply, remove the <NOSPAM>

# 1585. Re: Coax antenna for aircraft, help.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-01 01:50:28 UTC
From: "Carl J. Hixon" <cjhixon1@cox.net>
Message-ID: <3zghd.86390$hj.42816@fed1read07>
Source record: 87279

> By the numbers:
> >(1) So how do I calculate lengths for other frequencies? ie 121.5MHz,
> >146.73MHZ, 123.0 MHz
> By the proportion to the original frequency (this is called scalable).
> This usually implies thickness too,

Thank you for the reply. Care to show me an example? I don't know which lenghts are important, do I scale the radiator lenght, distance between radiator and shorting stub, and / or shorting stub?

> >(3) Where can I finde a descent but cheap SWR meter?
> Radio Shack.

I had checked at my local radio shack and the kid had no idea what I was talking about. Walked around and said, "we must not have them." It's not a very good store...only good at selling their toys, phones, etc. The Shack isn't what it used to be. Can anybody recommend a brand / model for under $100?

Thanks,
Carl

# 1586. Re: Coax antenna for aircraft, help.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-01 03:01:55 UTC
From: Lee Hopper <leehopp@centurytel.net>
Message-ID: <4185A723.20603@centurytel.net>
Source record: 87281

Carl wrote:
>
> I had checked at my local radio shack and the kid had no idea what I was
> talking about. Walked around and said, "we must not have them." It's not a
> very good store...only good at selling their toys, phones, etc. The Shack
> isn't what it used to be. Can anybody recommend a brand / model for under
> $100?
Carl -

Try HRO - Diamond makes some nice meters for under $100.00 - for instance:

Item : SX-40C
Description : 15/150W 144-470 MHZ COMPACT WMTR
YOUR HRO PRICE $79.95

Lee Hopper, NB7F
nr Portland, OR

# 1587. Re: Is that a radio wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-01 03:36:52 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <obihd.3155$zx1.720@newssvr13.news.prodigy.com>
Source record: 87282

NN7Kex<NOSPAM>k7zfg wrote:
> Richard Clark wrote:
>
>> On Mon, 01 Nov 2004 00:15:12 GMT, "NN7Kex<NOSPAM>k7zfg"
>> <"NN7Kex<NOSPAM>k7zfg"@sbcglobal.net> wrote:
>>
>>> Neither ATTACKED us, nor THREATENED US!
>>
>>
>>
>> Germany declared war on the United States 11 December 1941. When did
>> we attack them previous to that date?
>>
>> Well, the answer to that is that the Destroyers Greer, Kearney and
>> Reuben James attacked German submarines. THIS is the Nazi explanation
>> for their declaration.
>
>
>
> Not to mention that Lend - Lease could be (argueably) considered an act of
> war (certanly, NOT an act of Neutrality)!!
>
>>
>> In fact, the USS Kearney, DD-432, was torpedoed by the U-568 on 17
>> October 1941. Six weeks before, the U-652 attacked the Greer.
>>
>> Well, I suppose Roosevelt melted under pressure to leave Adolf alone,
>> but then we had the sinking of the Reuben James 30 October 1941 (63
>> years and a day ago).
>>
>> For these affronts to their national dignity, the Nazis had no choice
>> but defend themselves against us - and, well, one thing led to another
>> as the saying goes.
>>
>>
>>> To state otherwise
>>> means GREMANY ATTACKED PEARL HARBOR. And, JUST WHAT GIVES THE UN
>>> a free pass?? That institution , run by 3rd world DESPOTS,
>>
>>
>>
>> Was created by the United States, in San Francisco.
>
>

> Yeh, and also the League of Nations- But I Repeat: Just WHAT gives
> ANY of these folks the power to USURP ANY NATIONS National Sovernity ?
>
>>> The facts are that : KERRY is a admitted WAR CRIMINAL,
>>> and comitted ATTROCITIES
>>
>>
>> and Bush is crack smoker and was AWOL from assignment.
>
>
>
> Has he admitted to it ?? Kerry DID (see the NEW SOLDIER, authored by
> Kerry, Himself!!)
>
>> Just what makes either suitable? Because they are not the other?
>>
>> 73's
>> Richard Clark, KB7QHC
>
>
> But, also, then JUST WHAT GAVE US THE RIGHT TO DECLARE WAR ON ENGLAND,
> so as to found our own independance?? Is George Washington, Jefferson,
> Adams, Franklin, ect. to be considered criminals, or heros? Is Ho-Chi Minh
> a Hero? Castro? Stalin? Guess it depends on just WHO views history, and
> from what viewpoint! NN7K

My vote goes to such luminaries as Genghis Kahn, Attila the Hun, and
Timur the Lame, all of whom did what George just did. Seriously,
fellows, you can get it out of your system just by voting on Tuesday.
73,
Tom Donaly, KA6RUH

# 1588. Re: Is that a radio wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-01 04:29:12 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <undbo0lrmsinef4s0451a4loerbdolilbd@4ax.com>
Source record: 87283

On Mon, 01 Nov 2004 03:36:52 GMT, "Tom Donaly"
<dtdonaly@sbcglobal.net> wrote:

>Seriously,
>fellows, you can get it out of your system just by voting on Tuesday.

Hi Tom,

DOING better than that. I got myself involved, been working 70 hour
weeks for a month, helped register 2800 voters, and collected about
100 ballots BEFORE November 2nd. And then there is Poll Watching to
be done ON the 2nd.

Come what may - either way - it isn't what is going to happen on the
2nd that counts, it is going to be what happens every day AFTER
Tuesday for very many years.

73's
Richard Clark, KB7QHC

# 1589. Re: The "TRICK" to TV 'type' Coax Cable [Shielded] SWL Loop Antennas {RHF}

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-01 04:38:58 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0410312038.227d21f4@posting.google.com>
Source record: 87284
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

Telamon <telamon_spamshield@pacbell.net.is.invalid> wrote in message
>
> Well, OK there is just as much crap here but the posts in RRS do not
> usually turn into a "thesis" or degenerate into soap operatic techno
> babble with the usual cast of characters.

Where was the technobabble? It made sense to me...
>
> Generally, the air of pretense does not exist in RRS, as people here do
> not claim to be other than nonprofessional on the subject.

Well, some on rraa *are* professionals. But again, many are not. I am
not. My work has nothing at all to do with radio, antennas...
>
> Oh yeah and you are wrong about the shielded loop.

Oh yeah? Prove it. I've built both, and tested both, and I couldn't
tell a lick of difference. I have also used both shielded loops and
plain wire loops for the "coupling" loop that feeds a regular wire
loop. Again, no difference in noise pickup.
None whatsoever. If I am wrong, why don't I see the results? I'm not
just barking at the moon. I've built and compared both types just to
test this exact theory. Both of my present loops are now plain wire.
Don't you think that if there were really an advantage to a shielded
loop, I would be using them? My mama didn't raise a total fool. If I
see something that works according to common lore, I'll say so. If it
doesn't , I'll say that too...So far, I haven't seen it...
It's still my opinion that the shielded loops *do* help ensure balance
in feeding, but as far as a magical "anti noise" property, I don't see
it. If you feed the plain wire loop in a manner that also ensures the
same balance, both antennas will respond to any noise in the same
manner. You can disagree, which is fine, but until I see proof of this
magical anti noise property in real life, I will continue to claim the
*lower noise with a shielded loop theory* is a bunch of malarky... MK

# 1590. Re: Coax antenna for aircraft, help.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-01 04:40:16 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <usebo0p7cvst6q8104it4qoh4809q3cbph@4ax.com>
Source record: 87285

On Sun, 31 Oct 2004 17:50:28 -0800, "Carl J. Hixon" <cjhixon1@cox.net>
wrote:
>I had checked at my local radio shack and the kid had no idea what I was
>talking about. Walked around and said, "we must not have them." It's not a
>very good store...only good at selling their toys, phones, etc. The Shack
>isn't what it used to be. Can anybody recommend a brand / model for under
>$100?

Hi Carl,

A quick check at their web site reveals:
http://www.radioshack.com/iphraseget.asp?perPage=25&groupBy=&sortBy=iphrase+relevance&command=eq&attr1=Category&attr2=%3ARadio+Communications%3AAmateur+Radio&q=25&ia=1&s=%24__session__%24&s0=iphrase+relevance%2F%2F0&t=0&i=oid&c1=i%3A770%3Bdescription%2Cproduct%2CCategory%3Bswr%2Cmeter%3B%3Aswr%2C%3Ameter%3B%2B0+%2B1&c0=e%3A140%2F%2Fotype%2F%2F%3Aeq%2F%2Fsku&s1=oid%2F%2F1&as=1&render=1&domains=rscatalog%3Aoid&text=&sf=
or simply put SWR Meter into their search engine.

Lee's suggestion is just as good too.

As for simple instructions, the web abounds with them for 2M, you
simply scale any one of them to your frequency. You could build one
for less than $5 and it would mostly be for the SO-239 connector that
is used as the basis for a quarter wave vertical with four radials.

Use ordinary #14 solid wire:
Vertical wire, 21"
each of 4 radials, 13"
droop the radials at 45ï¿½

...or so my quick measurements show. Your mileage may vary. Consult
other authorities for a sanity check.

73's
Richard Clark, KB7QHC

## 1591. Re: Is that a radio wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-01 04:47:54 UTC
From: theplanters95@aol.comnospam
Message-ID: <20041031234754.08576.00003247@mb-m07.aol.com>
Source record: 87242

Chuck wrote:

Propagandist indeed..

That can go for both major parties and the third parties.

Go vote on Tuesday. Vote your values and beliefs. Remember that your vote
last 4 years. I am afraid many people are going to vote out of emotions,
rather than informed decision making.

The Bible tells us to pray for our leaders. We need to pray for our leaders
from the local elections all the way to the national. And please, no Bible or
Christian bashing :-)

Randy ka4nma

# 1592. Re: New Smith Chart Program - "SmartSmith"

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-01 04:54:54 UTC
From: Barnacle Bill <quahog@fish.net>
Message-ID: <10obgcurt3hd969@corp.supernews.com>
Source record: 87286

In article <bkq9o0t1eh0m5tevv00vtr5cpoavk46qc6@4ax.com>, Bob Miller wrote:
> On Sat, 30 Oct 2004 23:52:24 -0000, Barnacle Bill <quahog@fish.net>
> wrote:
>
>
>>>
>>
>>Some of us have gotten spoiled rotten by our wideband connections. I for
>>one have a T1 at work and do most of my downloading there. Maybe it's time
>>to step back, take a deep breath, and recall when we had a 1200 baud modem!
>>;^)
>>
>>BB
>
> I still have my little Radio Shack Model 100 portable pc, with its
> mighty 300-baud modem. Them was the times...
>
> bob
> k5qwg
>
>
Hey, I still have mine too! In fact, I just dug it out of a 'mystery box'
in the attic. It still works. Back in the 80's, I used in my land survey
business; I wrote a COGO program in BASIC on it that worked like a charm...

BB

## 1593. Re: Is that a radio wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-01 04:59:54 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <cdfbo0t4bi3btd5ggit3merj0p4lsq6h5q@4ax.com>
Source record: 87287

On Mon, 01 Nov 2004 01:49:57 GMT, "NN7Kex<NOSPAM>k7zfg"
<"NN7Kex<NOSPAM>k7zfg"@sbcglobal.net> wrote:
> Not to mention that Lend - Lease could be (argueably) considered an act of
>war (certanly, NOT an act of Neutrality)!!

Point is, they never mentioned that.

>>>WHAT GIVES THE UN
>>>a free pass?? That institution , run by 3rd world DESPOTS,
>>
>> Was created by the United States, in San Francisco.
>
>Yeh, and also the League of Nations

In fact the League of Nations was not created by the United States,
and certainly not in San Francisco.

>Is George Washington, Jefferson,
>Adams, Franklin, ect. to be considered criminals

They were - consult any British source of that era.

>Is Ho-Chi Minh Castro? Stalin?

So were they - consult any American source of that era. As you offer,
it is merely the source of the who builds the indictment.

Curious point about this last bunch is that they all read and used the
writings of Washington, Jefferson, Adams, Franklin to achieve their
goals.

Ho Chi Minh modeled himself after Gandhi. Gandhi modeled himself
after Thoreau ("Civil Disobedience"). Do you count Thoreau among the
criminal element? Thoreau willingly embraced such a label. Was
Gandhi a terrorist? Ask the Brits - then ask the Indians - then ask
the Pakistanis - then ask the administration. :-)

3 out of 4 will give you a straight answer and the last will offer
"It's hard work!."

Absolutely none of the radical communists learned their craft from
those bourgeois elitists Marx/Engels, they only peddled their DOA
ideology. ALL of their success came from AMERICAN examples. ALL of
their failure came from communism - plain and simple.

73's
Richard Clark, KB7QHC

# 1594. Re: The "TRICK" to TV 'type' Coax Cable [Shielded] SWL Loop Antennas {RHF}

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-01 05:48:48 UTC
From: Telamon <telamon_spamshield@pacbell.net.is.invalid>
Message-ID: <telamon_spamshield-63400C.21484631102004@newssvr21-ext.news.prodigy.com>
Source record: 87288
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

In article <25eb70d7.0410312038.227d21f4@posting.google.com>,
nm5k@wt.net (Mark Keith) wrote:

> Telamon <telamon_spamshield@pacbell.net.is.invalid> wrote in message
> >
> > Well, OK there is just as much crap here but the posts in RRS do not
> > usually turn into a "thesis" or degenerate into soap operatic techno
> > babble with the usual cast of characters.
>
> Where was the technobabble? It made sense to me...

Well it did not make sense to me. One thing was said and then the
contrary was stated, then the the one sided discussion went off on
another tangent and then on to some thing else. The thread read like a
voyage of discovery and was not unlike babbling.

> >
> > Generally, the air of pretense does not exist in RRS, as people here do
> > not claim to be other than nonprofessional on the subject.
>
> Well, some on rraa *are* professionals. But again, many are not. I am
> not. My work has nothing at all to do with radio, antennas...
> >
> > Oh yeah and you are wrong about the shielded loop.
>
> Oh yeah? Prove it. I've built both, and tested both, and I couldn't
> tell a lick of difference. I have also used both shielded loops and
> plain wire loops for the "coupling" loop that feeds a regular wire
> loop. Again, no difference in noise pickup.
> None whatsoever. If I am wrong, why don't I see the results? I'm not
> just barking at the moon. I've built and compared both types just to
> test this exact theory. Both of my present loops are now plain wire.
> Don't you think that if there were really an advantage to a shielded
> loop, I would be using them? My mama didn't raise a total fool. If I
> see something that works according to common lore, I'll say so. If it
> doesn't , I'll say that too...So far, I haven't seen it...
> It's still my opinion that the shielded loops *do* help ensure balance
> in feeding, but as far as a magical "anti noise" property, I don't see
> it. If you feed the plain wire loop in a manner that also ensures the
> same balance, both antennas will respond to any noise in the same
> manner. You can disagree, which is fine, but until I see proof of this
> magical anti noise property in real life, I will continue to claim the
> *lower noise with a shielded loop theory* is a bunch of malarky... MK

No, I'm not proving basic theory and design to you over Usenet. This is the wrong newsgroup for that. Go play in rec.radio.amateur.antenna

Besides you have have already stated experimental results contrary to basic theory and practice to your own satisfaction. How am I going to challenge that?

Sorry Markey I'm not playing rec.radio.amateur.antenna game. Go play with the other "Professional Trolls."

--
Telamon
Ventura, California

# 1595. Re: Coax antenna for aircraft, help.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-01 05:54:50 UTC
From: Howard <mensch90249@yahoo.com>
Message-ID: <tbjbo0918j6l9o366nl4k0m8neq165it65@4ax.com>
Source record: 87289

On Sun, 31 Oct 2004 17:50:28 -0800, "Carl J. Hixon" <cjhixon1@cox.net>
wrote:

>
>> By the numbers:
>> >(1) So how do I calculate lengths for other frequencies? ie 121.5MHz,
>> >146.73MHZ, 123.0 MHz
>> By the proportion to the original frequency (this is called scalable).
>> This usually implies thickness too,
>
>Thank you for the reply. Care to show me an example? I don't know which
>lenghts are important, do I scale the radiator lenght, distance between
>radiator and shorting stub, and / or shorting stub?
>
>> >(3) Where can I finde a descent but cheap SWR meter?
>> Radio Shack.
>
>I had checked at my local radio shack and the kid had no idea what I was
>talking about. Walked around and said, "we must not have them." It's not a
>very good store...only good at selling their toys, phones, etc. The Shack
>isn't what it used to be. Can anybody recommend a brand / model for under
>$100?
>
>Thanks,
>Carl
>
Carl,
I know that this isn't the answer you are seeking but I'll give it a
go anyway. Whay not just use a quarter wave? If your ultralight
aircraft has a metal framework and/or skin you could use that as the
'missing half' and just use a 1/4 wave whip. This is done in land
mobile all the time, a 1/4 wave whip that uses the vehicle body as the
ground plane. While I might be missing something by not knowing much
of anything about the aircraft you wish to mount this on it seems like
the simplest solution. I've built 3 from published measurements and
the SWR was acceptable on all (under 1.5:1) without pruning. Figure
the center frequency of where you plan to operate (on each band) cut
for that and call it a day. If you do wish to get the SWR meter
anyway another poster recommeded a Daiwa - I have one of their SWR
meters and concurr with his recommendation.
Howard

# 1596. Re: The "TRICK" to TV 'type' Coax Cable [Shielded] SWL Loop Antennas {RHF}

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-01 05:57:22 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <emjbo0dc81k0jo7r4u15vgfuba5gnv81cl@4ax.com>
Source record: 87290

On Mon, 01 Nov 2004 05:48:48 GMT, Telamon
<telamon_spamshield@pacbell.net.is.invalid> wrote:

>Besides you have have already stated experimental results contrary to
>basic theory

Hi Mark,

This presents much the situation that W. C. Fields offered when he
stated "I've got the Bull by the Tail, and I am facing the problem."

The fellow hasn't the high beams to switch off cross-posting. Let
this Tritonic Minnow rule his puddle.

73's
Richard Clark, KB7QHC

# 1597. Re: Is that a radio wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-01 07:23:57 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <2wlhd.87747$kz3.12494@fed1read02>
Source record: 87291

"Chuck" <wa7rai@raibeam.com> wrote in message
news:sQehd.3217$GN4.1349@okepread02...
>
> Ed Price <edprice@cox.net> wrote in message
> news:qZdhd.87705$kz3.49376@fed1read02...
>>
>> "Chuck" <wa7rai@raibeam.com> wrote in message
>> news:%zbhd.3210$GN4.3006@okepread02...
>> > Yes, Saddam was a first-class jerk and two-
>> > bit tyrant, but was not an immediate threat to
>> > America - he lost 2 wars and was sanctioned
>> > by the UN - his army was left impotent, his
>> > major weapons were destroyed after the gulf
>> > war, his WMD programs were in shambles,
>>
>> But Sadaam PROMISED us the "mother of all battles". We had to assume he
>> was
>> armed to the teeth. If you can't trust a guy like Sadaam to make a threat
>> meaningful, gee, who can you trust?
>
> Do you honestly believe a de-fanged

Sadaam "de-fanged"? Hell, even his left-overs are still killing us.

> two-bit

If I had a penny for every 2-bits Sadaam had, I'd have my executive
assistant insult you.

> tyrant is going to admit to the world he's
> impotent? But then, true believers will believe
> in just about anything that fits their illusions...

Strange, I was just going to suggest you consult a mirror.

>> > GWB is a war criminal - too bad you support
>> > a real war criminal - and that's not spin.
>>
>> Indeed Chuck, that's not spin. I'd call you an honest, straightforward
>> propagandist; what we used to simply refer to as a liar.
>
> You mean like the debunked Swiftboat vets for Bush

Your judgement only. Odd, the only time Kerry managed anything, he left with
270-some "employees" pissed at him; and they still are, 35 years later.

> or WMDs that didn't exist,

Sadaam didn't need WMD to invade Kuwait or to threaten Saudi Arabia. He certainly had some previously, and had no compunction about using them. To me, WMD are a non-issue; it's not what he didn't have, it's what he did that matters.

> or the
> immediate nuclear threat that didn't exist,
> al Queda links that never were,

Usually, your types put the administration in the impossible position of trying to prove a negative, but this statement looks like you accept some way to do so. I'm impressed!

> or how about
> compassionate conservatism, or vote for
> me or the terrorists will get you...
>
> Propagandist indeed...
>
> Chuck

Lose the thought somewhere in that last rant, Chuckie? Successful big liars need to keep focused.

Ed
wb6wsn

# 1598. Re: Coax antenna for aircraft, help.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-01 07:39:54 UTC
From: kelly@dvol.com
Message-ID: <d22b54c3.0410312339.15ee657c@posting.google.com>
Source record: 87292

"Carl J. Hixon" <cjhixon1@cox.net> wrote in message
news:<jo_gd.85932$hj.69553@fed1read07>...
> I saw the following antenna being made by some ultralight guys in San Diego.
> I was wondering what to think of this. I am new to antennas and just
> starting down the path to hamdom. Anything I need to know before starting
> to experiment with making one? I don't want to fry my only radio, a Vertex
> Standard VX-700.
>
> Below are the plans for an antenna which does not require a ground plane.
>
> This antenna is a 1/2 wave vertical dipole made out of RG-58/U coax and a
> Radio shack FM radio antenna. The beauty of this design is that it is cheap,
> simple, and easy to make with readily available materials. The radiator
> should be 3', 9 1/2 inches long for 123.450 operation, but only the top foot
> or two needs to be the telescoping FM radio antenna. Or, you can make the
> entire radiator length out of regular antenna wire if you wish. The only
> critical thing is the total length.
>
> Start out with enough coax so that you will have enough to run up to the
> radio from your antenna mounting location.
>
> First, solder the telescoping antenna to the middle conductor on the coax.
> Make sure to strip back the shield far enough so that it does not short to
> the "radiator" or telescoping part of the antenna. Remember, you can make
> the "radiator" entirely out of the center conductor on the coax, so if you
> are going to do that, you must make sure the dimensions are correct. Next,
> on the other end of the coax, I cut off a piece of coax that is going to be
> the shorting stub. In all cases, I always make the lengths to the long side.
> This way the antenna can be trimmed in to the desired frequency with a SWR
> bridge.
>
> To connect the shorting stub to the feedline, carefully remove a small
> section of insulation from the center conductor (no more than 1/4 of an
> inch). Solder and tape the inner conductor, then join and solder the
> shields. To insure proper shielding, split a spare piece of braid lengthwise
> on top of the shield connection, and carefully solder the shield together.
> (Rather than disecting the coax cable and soldering, we used a BNC
> connector for the shorting stub. We then trimed back for tuning and ended
> up with almost no wire needed on the shorting stub. VERY SHORT.)
>
> Don't forget to put a BNC connector on the radio end.
>
> Finally, hang up your antenna in an open space, and tune it in with a SWR
> meter. I have found that adjusting the length of the shorting stub has the

> most affect in adjusting for minimum SWR but be careful. If you cut too much
> off you will have to re-do it.
>
> Radiator Length: 3' 9.5"
> Radiator to shorting stub: 12.9"
> Shorting Stub: 1.9" (imagine no BNC connector when
> measuring)
>
> QUESTIONS:
>
> (1) So how do I calculate lengths for other frequencies? ie 121.5MHz,
> 146.73MHZ, 123.0 MHz

For a half wave it's 5616 ï¿½ frequency in Mhz = Radiator length in
inches.

For a quarter wave it's 2808 ï¿½ freq.

> (2) Any chance of damaging my Vertex Standard VX-700 if I start playing
> around with this?

No. It protects itself, don't worry about it.

> (3) Where can I finde a descent but cheap SWR meter?

There is great beauty in the KISS theory. Don't bother with an swr
bridge for no-brainers like this with an HT, it's overkill for any
purposes, close enough is close enough. Cobble together two antennas,
one for the air band and one for the 2M ham band, swap antennas
depending on the band in use and be done with it which is easy with
BNC connectors.

The simplest cheapest type of VHF antenna is the ï¿½ wave coaxial "no
radials vertical" and is made from RG-58. Calculate the length of the
ï¿½ wave radiator minus one inch to roughly correct for the velocity
factor and strip off the plastic jacket to that length plus ï¿½ inch.
Don't strip the insulation off the center conductor. Then horse the
braided shield back down over the jacket of the coax toward the radio
end. Lay a length of nylon cord alongside the radiator which extends
some number of feet beyond the upper end of the radiator. Seal the
whole assembly with heat shrink tubing, plug the top end of it with
some Goop and hang it up somewhere handy. This is not a particularly
portable "shack on the belt" sort of solution but it's essentially
bulletproof.

I strung one of these up in the airframe of my Quicksilver MX in my
ultralight flying days and it didn't just work, it drove me batty, at
altitude I heard every weekender UNICOM chatterbox for a couple
hundred miles around and I quickly retreated back to the rubber duck
to get some "attenuation".

> Thanks,
> Carl

w3rv

# 1599. Re: anyone have any info on "BOBCAT CURTAIN" antenna???

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-01 12:44:00 UTC
From: thebear1290 <pouch@gci-net.com>
Message-ID: <1099313040.246890.13250@f14g2000cwb.googlegroups.com>
Source record: 87293

Bill-
If you have access to old 73 magazine there is articleon Bobtails in
July 1981. - Phil K7OS

# 1600. Re: Is that a radio wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-01 13:33:17 UTC
From: Ian Jackson <IanJacksonRemoveThisBit@g3ohx.demon.co.uk>
Message-ID: <tESJTUFdsjhBFwDV@g3ohx.demon.co.uk>
Source record: 87294

In message <undbo0lrmsinef4s0451a4loerbdolilbd@4ax.com>, Richard Clark
<kb7qhc@comcast.net> writes
>On Mon, 01 Nov 2004 03:36:52 GMT, "Tom Donaly"
><dtdonaly@sbcglobal.net> wrote:
>
>>Seriously,
>>fellows, you can get it out of your system just by voting on Tuesday.
>
>Hi Tom,
>
>DOING better than that. I got myself involved, been working 70 hour
>weeks for a month, helped register 2800 voters, and collected about
>100 ballots BEFORE November 2nd. And then there is Poll Watching to
>be done ON the 2nd.
>

Why can't you Mercans realise you only have ONE ballot for the
president. And it can't be 'cast', it can only be held.

Unfortunately, the interchangeability of 'ballot' and 'vote' has now
entered BBC English.

We Limeys have a lot the thank Uncle Sam for, but not, sadly, your
despoilation of our language (and your present President, of course).

Sorry, I just HAD to complain.
Cheers,
Ian.
--

# 1601. Re: 15m Vertical Matching help

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-01 13:34:44 UTC
From: "J. Laub" <wd0bka@netscape.net>
Message-ID: <10oces4jir8v553@news.supernews.com>
Source record: 87295

This is why I move the wires to the outside of the pvc. I have at least 2" of separation between wires now. In addition to the ability to tune up on 40m w/o transmatch have noticed that generally speaking it tunes much easier on each band when use the ant tuner. I bet the wires, when strung on the inside, were crossing over or too close to each other. In any event, my next step is to obtain an analyzer and move the alligator clips around on the load coil. Once this beast is functioning, I am going to write up a short how-to for the web site. This pvc actually looks okay in the backyard.

-=Jon

"Mark Keith" <nm5k@wt.net> wrote in message
news:25eb70d7.0410302324.57d7f373@posting.google.com...
> "J. Laub" <wd0bka@netscape.net> wrote in message
news:<10o5oubahfqjd30@news.supernews.com>...
> > I'd like to construct a 15m vert that does not require use of my MFJ
> > Versa Tuner II. Portability. I started over this afternoon on a new
> > vertical using plans from a web site.
> >
> > WIRING:
> > I've suspended an 11'1" #12 wire for 15 inside some pvc. (While I was
> > at it I also suspended a 16'5" #12 wire inside the same piping for 20m.)
>
> That may be half of your problem. #1, the PVC may be effecting the
> overall length of the wire a bit. #2, if you have another vertical
> wire right next to it, they will couple and all bets are off. You are
> not tuning on 15 because with that extra 20m wire next to it, you are
> now too long I bet.
> >
> > RADIALS:
> > I've got six underground radials, 2 @ 11' and 4 @ 5-1/2"
>
> Another comment...Ground mounting a 15 or 20 meter vertical is never
> going to be that great a performer. You would be much better off with
> something elevated off the ground. Of course, I realize this may not
> be possible in your case.
> >
> > FEEDER & CONNECT POINT:
> > Using 52ohm RG58 (the thin stuff) to feed into a female coax chassis
> > mount at base of system. I have a small (maybe 4") of line from the
> > center of the chassis mount leading to the connection point bolt/wing
> > nut for each/either wire. This wire is 4" and I suspect this 4" may
> > cause some electrical lengthening right?
>

> Right...
> >If it does, I'm over on
> > measurements for each. errr....
>
> errrr....Yep, that, and the 20m wire, and you are probably way too
> long...
> >
> > Other than this possible lengthening, I cannot think of what else to do.
> >
> > In short, I should probably borrow a dip meter and check for impedance
> > problem? I was reading that I should attach a silver mica capacitor
> > across the wires. Haven't tried this yet as they are still in the mail.
>
> You should not need *anything* to match a 1/4 wave vertical. I know I
> never have, on any band, or with any ground condition. If it doesn't
> tune at least under 2:1 SWR, something is wrong... Like running two
> verticals an inch apart...
> You also shouldn't need any fancy analysers...I've never owned one
> myself, and I don't have any trouble.
> >
> > I was thinking ahead too when I put this stinker up. I've got a 22-turn
> > base coil sitting there as my next try but that sort of defeats my
> > original simplicity plan.
>
> You shouldn't need it. Just curious...If this is going to be a
> portable antenna, what are you going to do about radials? Are you
> going to add ground radials at each location? What a pain....
> For a portable 15 m vertical, I would use something like a base fed
> half wave.
> Can be mounted anywhere, no radials are needed. Can be elevated, or
> near the ground, although the higher the better. But, you can get what
> you have to work, if you ditch the 20m wire that is next to the 15 in
> the PVC. Or at the least, ditch it until you get the other band tuned.
> In the real world, if you tried to make such a dual band antenna, it
> would be best to tune 20 first, and then 15. But I don't really
> recommend you doing that as it's a PIA to tune. I'm almost sure thats
> most of the trouble you are having. The PVC could be effecting the
> overall length also. MK

---
Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.786 / Virus Database: 532 - Release Date: 10/29/04

# 1602. Re: New Smith Chart Program - "SmartSmith"

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-01 15:06:02 UTC
From: Bob Miller <rmiller47@satx.rr.com>
Message-ID: <95kco0paat9u5lq2tkr6h54v0t7ubbj5bl@4ax.com>
Source record: 87296

On Mon, 01 Nov 2004 04:54:54 -0000, Barnacle Bill <quahog@fish.net>
wrote:

>In article <bkq9o0t1eh0m5tevv00vtr5cpoavk46qc6@4ax.com>, Bob Miller wrote:
>> On Sat, 30 Oct 2004 23:52:24 -0000, Barnacle Bill <quahog@fish.net>
>> wrote:
>>
>>
>>>>>>
>>>Some of us have gotten spoiled rotten by our wideband connections. I for
>>>one have a T1 at work and do most of my downloading there. Maybe it's time
>>>to step back, take a deep breath, and recall when we had a 1200 baud modem!
>>>;^)
>>>
>>>BB
>>
>> I still have my little Radio Shack Model 100 portable pc, with its
>> mighty 300-baud modem. Them was the times...
>>
>> bob
>> k5qwg
>>
>>
>Hey, I still have mine too! In fact, I just dug it out of a 'mystery box'
>in the attic. It still works. Back in the 80's, I used in my land survey
>business; I wrote a COGO program in BASIC on it that worked like a charm...
>
>BB

There's actually a user group for the little booger -- see
http://www.club100.org/

bob
k5qwg

# 1603. Re: Skywire coax cable vs. regular coax cable

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-01 16:04:20 UTC
From: Jim <IHateSpam@NoSpam.net>
Message-ID: <98thd.2302$TV1.2170@fe39.usenetserver.com>
Source record: 87297

"Jack" <jack_linden@hotmail.com> wrote in message
news:d920aa13.0410300717.59041206@posting.google.com...
> Is there a difference between a "Skywire" coax cable and a regular
> coax cable you get from Radio Shack in terms of quality or
> compatibilities?

One thing I didn't see mentioned in the other posts is the quality of the wire used to make the coax.

I have seen this problem with both Radio Shack Coax and their hook up wire. I beleive it is all made in Japan and they use a different copper alloy (or possibly tempering) than the US companies. This makes the wire more brittle and it tends to be stiffer. Read this as: You have to be >>>Very<<< careful not to nick the wire or it will break when it flexes. The US made copper wire I have used does not have this problem.

Jim
N8EE

# 1604. Re: Coax antenna for aircraft, help.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-01 16:04:21 UTC
From: John Smith <kd5yikes@mindspring.com>
Message-ID: <cm5mq802oqs@enews2.newsguy.com>
Source record: 87300

"Carl J. Hixon" <cjhixon1@cox.net> wrote in message
news:jo_gd.85932$hj.69553@fed1read07...
>I saw the following antenna being made by some ultralight guys in San
>Diego.
> I was wondering what to think of this. I am new to antennas and just
> starting down the path to hamdom. Anything I need to know before starting
> to experiment with making one? I don't want to fry my only radio, a
> Vertex
> Standard VX-700.
>
> Below are the plans for an antenna which does not require a ground plane.
>
> This antenna is a 1/2 wave vertical dipole made out of RG-58/U coax and a
> Radio shack FM radio antenna. The beauty of this design is that it is
> cheap,
> simple, and easy to make with readily available materials. The radiator
> should be 3', 9 1/2 inches long for 123.450 operation, but only the top
> foot
> or two needs to be the telescoping FM radio antenna. Or, you can make the
> entire radiator length out of regular antenna wire if you wish. The only
> critical thing is the total length.
>
> Start out with enough coax so that you will have enough to run up to the
> radio from your antenna mounting location.
>
> First, solder the telescoping antenna to the middle conductor on the coax.
> Make sure to strip back the shield far enough so that it does not short to
> the "radiator" or telescoping part of the antenna. Remember, you can make
> the "radiator" entirely out of the center conductor on the coax, so if you
> are going to do that, you must make sure the dimensions are correct. Next,
> on the other end of the coax, I cut off a piece of coax that is going to
> be
> the shorting stub. In all cases, I always make the lengths to the long
> side.
> This way the antenna can be trimmed in to the desired frequency with a SWR
> bridge.
>
> To connect the shorting stub to the feedline, carefully remove a small
> section of insulation from the center conductor (no more than 1/4 of an
> inch). Solder and tape the inner conductor, then join and solder the
> shields. To insure proper shielding, split a spare piece of braid
> lengthwise
> on top of the shield connection, and carefully solder the shield together.
> (Rather than disecting the coax cable and soldering, we used a BNC

> connector for the shorting stub. We then trimed back for tuning and ended
> up with almost no wire needed on the shorting stub. VERY SHORT.)
>
> Don't forget to put a BNC connector on the radio end.
>
> Finally, hang up your antenna in an open space, and tune it in with a SWR
> meter. I have found that adjusting the length of the shorting stub has the
> most affect in adjusting for minimum SWR but be careful. If you cut too
> much
> off you will have to re-do it.
>
> Radiator Length: 3' 9.5"
> Radiator to shorting stub: 12.9"
> Shorting Stub: 1.9" (imagine no BNC connector
> when
> measuring)
>
> QUESTIONS:
>
> (1) So how do I calculate lengths for other frequencies? ie 121.5MHz,
> 146.73MHZ, 123.0 MHz
> (2) Any chance of damaging my Vertex Standard VX-700 if I start playing
> around with this?
> (3) Where can I finde a descent but cheap SWR meter?
>
>
> Thanks,
> Carl

I don't know if I am understanding the instructions correctly. I take them to mean that the 3' 9.5" antenna is attached to the end of the coax and then you come back away from the base of the antenna 12.9" and splice in a 1.9" piece of shorted coax. If this is true, then working backwards from the stub I find that the antenna is about 2.4-j73 Ohms. Seems a bit strange for an end-fed half wave, but never mind that.

In any case, to adjust the lengths for a new frequency, simply divide 123.45 by the new frequency (in MHz) and then multiply the dimensions by this number. This is what Richard meant by scaling the antenna for different frequencies. For example, for 2 meters, you have
123.45/146.73 = 0.8413 so your antenna will be .8413 times 3' 9.5" or 3' 2.3". Adjust the distance from the antenna to the stub and the length of the stub in the same way.

I recommend that you build your own SWR meter. The one I have in mind will actually provide protection for your rig while you use it. It is a resistor bridge type. Read about it here:

http://www.qsl.net/xq2fod/Electron/swr/swr.html

He uses two meters, which I would not do (use a switch instead).This circuit can also be found in the ARRL literature and where it uses just one meter.

Frankly, I agree with other posters here in that this antenna could be very troublesome for you. Adjusting the shorted stub and its position on the feed line could have you pulling your hair out. Small errors in dimensions will have large impacts in SWR. Be sure to look at your SWR when the antenna is mounted in its new home. Proximity to other objects may have a big effect.

Good luck.

John

# 1605. Opinions on 4NEC2 and 4NEC2X?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-01 16:06:13 UTC
From: Jim <IHateSpam@NoSpam.net>
Message-ID: <Q9thd.2303$TV1.2168@fe39.usenetserver.com>
Source record: 87298

Any comments?

What does everyone think of these?

Jim
N8EE

# 1606. Re: Is that a radio wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-01 16:21:29 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <bsnco0p9j17egf02at7bm0a07mbksvksp0@4ax.com>
Source record: 87299

On Mon, 1 Nov 2004 13:33:17 +0000, Ian Jackson
<IanJacksonRemoveThisBit@g3ohx.demon.co.uk> wrote:

>Why can't you Mercans realise you only have ONE ballot for the
>president. And it can't be 'cast', it can only be held.
>
>Unfortunately, the interchangeability of 'ballot' and 'vote' has now
>entered BBC English.
>

Hi Ian,

According to my OED, Ballot has existed in the sense we all use it since 1549. I can't imagine which "Mericans" you could blame then. The notion of not being cast is foreign given the word Ballot derives from Ball, and if anything, for it to work as a secret vote (the meaning of Ballot according to the OED) it had to be placed into a Ballot Box (and having had stood next to one for these several weeks makes me a Balloteer) about as remote to being held as any.

Others may appreciate that this all devolves to the idiom "Black Ball." That is, the Ballot indicated if you voted For or Against and you held it hidden in your hand and deposited it unseen by others into the pool of other Ballots which were then reckoned after the completion of the process. If the majority were black, the candidate was defeated.

Anyway, back to my Ballotist activities. I've got more Ballots to collect.

73's
Richard Clark, KB7QHC

# 1607. Re: The "TRICK" to TV 'type' Coax Cable [Shielded] SWL Loop Antennas {RHF}

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-01 16:50:42 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <CPthd.3349$zx1.1888@newssvr13.news.prodigy.com>
Source record: 87301
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

Telamon wrote:
> In article <25eb70d7.0410312038.227d21f4@posting.google.com>,
> nm5k@wt.net (Mark Keith) wrote:
>
>
>>Telamon <telamon_spamshield@pacbell.net.is.invalid> wrote in message
>>
>>>Well, OK there is just as much crap here but the posts in RRS do not
>>>usually turn into a "thesis" or degenerate into soap operatic techno
>>>babble with the usual cast of characters.
>>
>>Where was the technobabble? It made sense to me...
>
>
> Well it did not make sense to me. One thing was said and then the
> contrary was stated, then the the one sided discussion went off on
> another tangent and then on to some thing else. The thread read like a
> voyage of discovery and was not unlike babbling.
>
>
>>>Generally, the air of pretense does not exist in RRS, as people here do
>>>not claim to be other than nonprofessional on the subject.
>>
>>Well, some on rraa *are* professionals. But again, many are not. I am
>>not. My work has nothing at all to do with radio, antennas...
>>
>>>Oh yeah and you are wrong about the shielded loop.
>>
>>Oh yeah? Prove it. I've built both, and tested both, and I couldn't
>>tell a lick of difference. I have also used both shielded loops and
>>plain wire loops for the "coupling" loop that feeds a regular wire
>>loop. Again, no difference in noise pickup.
>>None whatsoever. If I am wrong, why don't I see the results? I'm not
>>just barking at the moon. I've built and compared both types just to
>>test this exact theory. Both of my present loops are now plain wire.
>>Don't you think that if there were really an advantage to a shielded
>>loop, I would be using them? My mama didn't raise a total fool. If I
>>see something that works according to common lore, I'll say so. If it
>>doesn't , I'll say that too...So far, I haven't seen it...
>>It's still my opinion that the shielded loops *do* help ensure balance
>>in feeding, but as far as a magical "anti noise" property, I don't see
>>it. If you feed the plain wire loop in a manner that also ensures the

>>same balance, both antennas will respond to any noise in the same
>>manner. You can disagree, which is fine, but until I see proof of this
>>magical anti noise property in real life, I will continue to claim the
>>*lower noise with a shielded loop theory* is a bunch of malarky... MK
>
>
> No, I'm not proving basic theory and design to you over Usenet. This is
> the wrong newsgroup for that. Go play in rec.radio.amateur.antenna
>
> Besides you have have already stated experimental results contrary to
> basic theory and practice to your own satisfaction. How am I going to
> challenge that?
>
> Sorry Markey I'm not playing rec.radio.amateur.antenna game. Go play
> with the other "Professional Trolls."
>

Actually, Mark is right. For small loops it shouldn't make any
difference according to the theory in the Antenna Engineering
Handbook. Shielding larger loops may help deepen the null, which
is good for direction finding, but it isn't supposed to do anything
for small loops.
73,
Tom Donaly, KA6RUH

# 1608. Re: Coax antenna for aircraft, help.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-01 16:59:05 UTC
From: John Smith <kd5yikes@mindspring.com>
Message-ID: <cm5q1502bd5@enews1.newsguy.com>
Source record: 87304

Hey, Carl -

"John Smith" <kd5yikes@mindspring.com> wrote in message
news:cm5mq802oqs@enews2.newsguy.com...

> I don't know if I am understanding the instructions correctly. I take them
> to mean that the 3' 9.5" antenna is attached to the end of the coax and
> then you come back away from the base of the antenna 12.9" and splice in a
> 1.9" piece of shorted coax. If this is true, then working backwards from
> the stub I find that the antenna is about 2.4-j73 Ohms. Seems a bit
> strange for an end-fed half wave, but never mind that.

Oops! I forgot to include the velocity factor of RG58A. Using .73 would make
the antenna 23.9-j199 Ohms. But, this estimate is not really useful to you
and I probably should have left out that whole paragraph. Just ignore it.

John

# 1609. Re: Is that a radio wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-01 17:03:09 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <h%thd.16284$6q2.14006@newssvr14.news.prodigy.com>
Source record: 87302

Richard Clark wrote:

> On Mon, 01 Nov 2004 03:36:52 GMT, "Tom Donaly"
> <dtdonaly@sbcglobal.net> wrote:
>
>
>>Seriously,
>>fellows, you can get it out of your system just by voting on Tuesday.
>
>
> Hi Tom,
>
> DOING better than that. I got myself involved, been working 70 hour
> weeks for a month, helped register 2800 voters, and collected about
> 100 ballots BEFORE November 2nd. And then there is Poll Watching to
> be done ON the 2nd.
>
> Come what may - either way - it isn't what is going to happen on the
> 2nd that counts, it is going to be what happens every day AFTER
> Tuesday for very many years.
>
> 73's
> Richard Clark, KB7QHC

Hi Richard,
the present administration sure has revivified the
democratic process by angering everyone it could, and re-starting
the culture wars. I don't think a different president will change
foreign policy much, though. Once a nation gets as mighty as
ours, it seems to get power-drunk therefrom and blows all its resources
on controlling the world. The next four years should be interesting, but
painful, no matter who controls the White House.
73,
Tom Donaly, KA6RUH

# 1610. Re: New Smith Chart Program - "SmartSmith"

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-01 17:08:40 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41866bac$1_2@127.0.0.1>
Source record: 87303

Reg Edwards wrote:
> Smith Charts went out of date wth slide rules and log tables with the advent
> of the pocket calculator.

An abstract math equation will get one the answer but not necessarily
illustrate what is happening in reality. We see the results of that here
on this newsgroup. The appeal of the Smith Chart is that it gives one
a graphic conceptual grasp of reality while using those same equations
to solve the problem. A picture *is* worth a thousand words. We can
see the (Vfor+Vref)/(Ifor/Iref) impedance displayed right there on
the SWR circle.
--
73, Cecil http://www.qsl.net/w5dxp

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# 1611. Re: Is that a radio wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-01 17:23:38 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41866f31$1_3@127.0.0.1>
Source record: 87305

Ed Price wrote:
> Sadaam didn't need WMD to invade Kuwait or to threaten Saudi Arabia. He
> certainly had some previously, and had no compunction about using them.

Punishing someone for crimes yet un-committed is un-American and
un-Constitutional. Methinks the Iraq war is Bush's "One Bridge Too
Far" (WWII war movie).
--
73, Cecil http://www.qsl.net/w5dxp

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# 1612. Re: Is that a radio wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-01 18:27:54 UTC
From: chuck <wa7rai@raibeam.com>
Message-ID: <C8vhd.88148$kz3.43033@fed1read02>
Source record: 87306

```
"Ed Price" <edprice@cox.net> wrote in message
news:2wlhd.87747$kz3.12494@fed1read02...
>
> "Chuck" <wa7rai@raibeam.com> wrote in message
> news:sQehd.3217$GN4.1349@okepread02...
> >
> > Ed Price <edprice@cox.net> wrote in message
> > news:qZdhd.87705$kz3.49376@fed1read02...
> >>
> >> "Chuck" <wa7rai@raibeam.com> wrote in message
> >> news:%zbhd.3210$GN4.3006@okepread02...
> >> > Yes, Saddam was a first-class jerk and two-
> >> > bit tyrant, but was not an immediate threat to
> >> > America - he lost 2 wars and was sanctioned
> >> > by the UN - his army was left impotent, his
> >> > major weapons were destroyed after the gulf
> >> > war, his WMD programs were in shambles,
<... >
> >> > GWB is a war criminal - too bad you support
> >> > a real war criminal - and that's not spin.
> >>
> >> Indeed Chuck, that's not spin. I'd call you an honest, straightforward
> >> propagandist; what we used to simply refer to as a liar.
> >
> > You mean like the debunked Swiftboat vets for Bush
>
> Your judgement only. Odd, the only time Kerry managed anything, he left
with
> 270-some "employees" pissed at him; and they still are, 35 years later.

Perhaps I give greater credibility to the folks
who served with Kerry in this regard, than
the vile rhetoric of folks with an un-American
religious/political agenda. Kerry was not alone
in his distain for that war, but the hawks who
opposed his position then, are still carrying a
grudge now - after all these years - that's both
obsessive and perverted IMO!

When a President has more loyalty to his
mega-corporate cronies and the looney
megalomaniac Pat Robertson, than he has
for the common folk, he does not deserve
to hold the office.
```

Chuck

# 1613. Re: New Smith Chart Program - "SmartSmith"

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-01 18:44:40 UTC
From: chuck <wa7rai@raibeam.com>
Message-ID: <Vwvhd.88152$kz3.8071@fed1read02>
Source record: 87307

"Robert Lay W9DMK" <w9dmk@crosslink.net> wrote in message
news:4181a8d7.50504291@news.crosslink.net...
>
> Download your free copy of SmartSmith version 1.1 using the following
> link (slightly larger than 2 MB):
>

Hi Bob,

What a dissapointment - spending so much
time in downloading your progam (three
attempts), only to have it fail in its installation.

Your installer told me I have an outdated file it
needs to replace. Afer allowing - and rebooting
- the installer did not continue. When attempting
another install, I get the same response... ad
infinitum.

Chuck, WA7RAI

# 1614. Re: New Smith Chart Program - "SmartSmith"

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-01 19:31:53 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cm62v9$3pd$1@sparta.btinternet.com>
Source record: 87308

I can't deny its small educational value. There are other things besides transmissions lines. Its worth a single lecture in a 3 year course as are numerous other graphical methods of illustrating electrical principles..

But unless one is made aware of its limitations and its inaccuracies (which takes up half the lecture) it can in fact damage an education and turn a student into an old-wife.

But it's fine for old-timers who've had years of practice and can use it with their eyes shut as they already know the answer before they start.

It is a paper instrument which assists in performing very simple algebraic calculations - provided you already know what its all about.

I appreciate its historical, nostalgic, sentimental value. If you gaze at it long enough it acquires a certain beauty. And it served a very uselul, time-saving purpose when in vogue during the 1940's.
----
Reg

"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:41866bac$1_2@127.0.0.1...
> Reg Edwards wrote:
> > Smith Charts went out of date wth slide rules and log tables with the
advent
> > of the pocket calculator.
>
> An abstract math equation will get one the answer but not necessarily
> illustrate what is happening in reality. We see the results of that here
> on this newsgroup. The appeal of the Smith Chart is that it gives one
> a graphic conceptual grasp of reality while using those same equations
> to solve the problem. A picture *is* worth a thousand words. We can
> see the (Vfor+Vref)/(Ifor/Iref) impedance displayed right there on
> the SWR circle.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>
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# 1615. WTB Really Skinny Whip Material for 1/4 wave two meter

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-01 19:53:21 UTC
From: courir26@yahoo.com
Message-ID: <a0dd5fc9.0411011153.65856406@posting.google.com>
Source record: 87309

Hi all,

Looking for the really skinny stainless whip material for a mag mount two meter ant.

The current material on my mag mount is too stiff and when it hits the top of the garage door it pulls the magnet off.

Looking for the really flimsey material that will easily bend backward in the garage and not pull the magnet off.

Where can I get this material? I know with skinny material I give up bandwidth, but I only use one freq anyway.

Thanks
Tom

# 1616. Re: WTB Really Skinny Whip Material for 1/4 wave two meter

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-01 21:09:33 UTC
From: Crazy George <muNnscOh@attSglPobaAl.nMet>
Message-ID: <4186a86e_4@news1.prserv.net>
Source record: 87310

Tom:

Two answers:

1. Piano wire. Music store

2. Buy a Newtronics (Hustler) model UGM from HRO. Small, lightweight, very flexible.

--
Crazy George
Remove N O and S P A M imbedded in return address

# 1617. Microstrip PCB antenna for 2.4 GHz WLAN

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-01 22:43:18 UTC
From: Kasper Vibe Grevsen <kaspervg@post.cNOCAPSybercity.dENMARk>
Message-ID: <cm6e5v$l5d$1@news.cybercity.dk>
Source record: 87311

Hello HAMmers :)

I want to build an internal WLAN antenna for my notebook computer to be placed in the screen.
The available space is 163 x 12 mm. A quarter wavelength at 2442.5 MHz is 30.7 mm. I haven't been able to find much info about microstrip design so I hope you might be able to give some suggestions as to a good design.

I have thought about 'stretching' a bi-quad to fit the dimensions, but then the angles cannot be 90°. Would that be a problem? Can you suggest a better design to try? This is my first antenna design so please bear with me if these are beginner questions.

Thanks

--
Kasper

# 1618. Help designing trap dipole - ARRL Antenna book no help!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-01 23:13:54 UTC
From: Ken Bessler <kg0wx@NOSPAMyahoo.com>
Message-ID: <Tpzhd.40784$lp6.34766@okepread01>
Source record: 87312

The ARRL antenna book describes the inductive effect
of traps on lower freqs and how this physically shortens
the antenna. They talk about L/C ratio and give two
examples.

Problem is they don't give the formula! #$%#%$!

Here's my antenna - it's a 75/160 trap dipole. The traps
were designed with W8VVM's software. Cutting the
75m portion of the antenna is easy - I need to know how
long (as a starting point) to cut the 160 m end pieces!

Help!

Details: the traps are 8-1/3 turns of rg58 coax wound
around a 3-1/2" form. L is 7.211 uH, C is 232.15 pF.
X is 176.24 ohms. Design freq on 75 is 3.890. Target
freq for 160 is 1.925. I plan on cutting the 75m wires
60.5 feet to start and work up from there but what do
I cut the 160m ends to start?

Ken KG0WX

# 1619. Re: WTB Really Skinny Whip Material for 1/4 wave two meter

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-01 23:14:07 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <4186c153$1_3@127.0.0.1>
Source record: 87313

Tom M wrote:
> Looking for the really skinny stainless whip material for a mag mount
> two meter ant.

Try an RC hobby shop. RC antennas are what you want.
Make sure it is 20+ inches long so you can trim it
to resonance. I am amazed at the advances in RC model
planes. Almost everyone is using electric motors now.
A control servo that used to measure two inches by one
inch by 0.5 inches is now virtually microscopic. :-)
--
73, Cecil http://www.qsl.net/w5dxp

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# 1620. Re: New Smith Chart Program - "SmartSmith"

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-02 02:23:20 UTC
From: Barnacle Bill <quahog@fish.net>
Message-ID: <10odrsot75mv8a2@corp.supernews.com>
Source record: 87314

In article <95kco0paat9u5lq2tkr6h54v0t7ubbj5bl@4ax.com>, Bob Miller wrote:
> On Mon, 01 Nov 2004 04:54:54 -0000, Barnacle Bill <quahog@fish.net>
> wrote:
>
>>In article <bkq9o0t1eh0m5tevv00vtr5cpoavk46qc6@4ax.com>, Bob Miller wrote:
>>> On Sat, 30 Oct 2004 23:52:24 -0000, Barnacle Bill <quahog@fish.net>
>>> wrote:
>>>
>>>
>>>>
>>>>
>>>>Some of us have gotten spoiled rotten by our wideband connections. I for
>>>>one have a T1 at work and do most of my downloading there. Maybe it's time
>>>>to step back, take a deep breath, and recall when we had a 1200 baud modem!
>>>>;^)
>>>>
>>>>BB
>>>
>>> I still have my little Radio Shack Model 100 portable pc, with its
>>> mighty 300-baud modem. Them was the times...
>>>
>>> bob
>>> k5qwg
>>>
>>>
>>Hey, I still have mine too! In fact, I just dug it out of a 'mystery box'
>>in the attic. It still works. Back in the 80's, I used in my land survey
>>business; I wrote a COGO program in BASIC on it that worked like a charm...
>>
>>BB
>
> There's actually a user group for the little booger -- see
> http://www.club100.org/
>
> bob
> k5qwg
>
>
Wow! Tnx, I was gonna toss it. Not now!

BB

# 1621. Re: New Smith Chart Program - "SmartSmith"

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-02 02:31:25 UTC
From: Barnacle Bill <quahog@fish.net>
Message-ID: <10odsbt5irk5ece@corp.supernews.com>
Source record: 87315

In article <cm3o69$s9b$1@titan.btinternet.com>, Reg Edwards wrote:
> Smith Charts went out of date wth slide rules and log tables with the advent
> of the pocket calculator.
>
> Be real engineers. Get yourselves into the 21st century.
> ----
> Reg
>
>

You know, I thought the same way for a while. In my land survey business, I progressed quickly into using Autocad and total stations with data collectors, but I never forgot the old ways. I could tape a 10,000 ft. line through moderate terrain with 1/50,000 accuracy/precision, and close a traverse with book of log tables and trig tables. Thanks to frequent power outages around here, and dead batteries, I got to use both. keep the old technologies alive!

Bill

# 1622. Help!! AM Radio Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-02 02:54:57 UTC
From: James Harvey <spamzap@nowhere.com.invalid>
Message-ID: <spamzap-7BBD77.20565301112004@news1.west.earthlink.net>
Source record: 87316

Hi,

I have been recording vinyl LPs to my computer the past few days with a grounded phono preamp. I had no problems until today. I am now picking up serious hum and buzz, and I can hear broadcasts from an AM radio station that has a powerful transmitter located in my city, while using the recording software. WTF?
Is there any way to stop this bs? I have tried various isolation transformers, grounding schemes, and shielded cable configurations to no avail. I have complained to the station, but got no response from engineering.
Any ideas on what to do? Practical advice appreciated.

TIA,
James

--
Real replies may be sent to zookini33 <at> hotmail <dot> com.
Spam trap is in place. This posting does NOT constitute
an agreement to accept email of a bulk or commercial nature.

http://home.earthlink.net/~zewkini/

# 1623. Re: Is that a radio wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-02 03:30:34 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <vvudo0lq20qsmfd3rrbfkvs6l4og633dbb@4ax.com>
Source record: 87317

On Mon, 01 Nov 2004 17:03:09 GMT, "Tom Donaly"
<dtdonaly@sbcglobal.net> wrote:

>Once a nation gets as mighty as
>ours, it seems to get power-drunk therefrom and blows all its resources
>on controlling the world. The next four years should be interesting, but
>painful, no matter who controls the White House.

Hi Tom,

I agree, and that is why I said it was going to take YEARS and not one
day. We live in a decadent society that has lost all proportion of
integrity, commitment, and service. When one party rails against a
dope smoking president to offer us a crack smoking president; then you
know their (plural) system has all the morality of Sodom.

Well, I've finished my rounds for this cycle of registration/voting.
It's time to move on to my next project in starting another non-profit
(my buddies chuckle that I can now lose MORE money legally).

73's
Richard Clark, KB7QHC

## 1624. Re: Is that a radio wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-02 03:43:15 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <ob0eo0dq5mdlv6epal848q6sc0ui9hcgug@4ax.com>
Source record: 87318

On Sun, 31 Oct 2004 23:23:57 -0800, "Ed Price" <edprice@cox.net>
wrote:
>Usually, your types put the administration in the impossible position of
>trying to prove a negative
Consistent in that they couldn't prove a positive either.
As Philip Gold offered: "Screw Up, Move On."

# 1625. Re: Is that a radio wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-02 03:53:48 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <gxDhd.3668$zx1.1561@newssvr13.news.prodigy.com>
Source record: 87319

Richard Clark wrote:
> On Mon, 01 Nov 2004 17:03:09 GMT, "Tom Donaly"
> <dtdonaly@sbcglobal.net> wrote:
>
>
>>Once a nation gets as mighty as
>>ours, it seems to get power-drunk therefrom and blows all its resources
>>on controlling the world. The next four years should be interesting, but
>>painful, no matter who controls the White House.
>
>
> Hi Tom,
>
> I agree, and that is why I said it was going to take YEARS and not one
> day. We live in a decadent society that has lost all proportion of
> integrity, commitment, and service. When one party rails against a
> dope smoking president to offer us a crack smoking president; then you
> know their (plural) system has all the morality of Sodom.
>
> Well, I've finished my rounds for this cycle of registration/voting.
> It's time to move on to my next project in starting another non-profit
> (my buddies chuckle that I can now lose MORE money legally).
>
> 73's
> Richard Clark, KB7QHC

Hi Richard,
good luck with your non-profit. Around here, selfishness,
unbridled acquisitiveness, social paranoia, and soul-deforming greed,
are all considered to be the real manifestations of morality. I hope
the American people will stop shooting each other in the back and
learn to get along some day.
73,
Tom Donaly, KA6RUH

# 1626. Re: Help!! AM Radio Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-02 04:18:47 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <qj0eo0pcpvc1u5mgtcf1j66va5fsrh218d@4ax.com>
Source record: 87320

On Tue, 02 Nov 2004 02:54:57 GMT, James Harvey
<spamzap@nowhere.com.invalid> wrote:

>Hi,
>
>I have been recording vinyl LPs to my computer the past few days with a
>grounded phono preamp. I had no problems until today. I am now picking
>up serious hum and buzz, and I can hear broadcasts from an AM radio
>station that has a powerful transmitter located in my city, while using
>the recording software. WTF?

Hi James,

The proper usage is
"WTF, Over?"

>Is there any way to stop this bs? I have tried various isolation
>transformers, grounding schemes, and shielded cable configurations to no
>avail.

What you describe is a ground loop. I bet you have had a weather
change in the last day or two. (I know, that is almost certain, but a
recent rainfall, or cessation of raining often introduces these
problems.)

>I have complained to the station, but got no response from
>engineering.

It's not their problem.

>Any ideas on what to do? Practical advice appreciated.

Plug ALL of your electronics into the same power strip and plug that
into the wall. Strip out all wires that go to other equipment (like a
modem, printer, T1/network connection, scanner, you name it...) make
sure the monitor shares that same power strip. You say "grounded"
phono preamp. This is probably antediluvian equipment (a two wire AC
plug with a dangling wire or knurled nut in back for ground). There
is every chance that your ground wire is going to an open ground lead
(did you check the outlet for inverted hot/neutral, hot/ground,
neutral/ground, open ground?). Is this two wire AC plug polarized?
You may have a potential suicide adapter - be careful. You might be
more successful in simply connecting the Phono output directly into
the sound card Microphone input. If it makes a hellacious hum during
the connect process, then YES you do have ground problems - you also
stand the chance of that problem going away when the plug finally
seats though (my guess is that this has always been the case, and it

just got more noticeable).

I see you have tried isolation transformerS (why the plural?). If you neglect wires that trail off to foreign connections (already listed above) this will do nothing but confuse the situation (it only takes one wire).

There is a working solution and to find it means starting with a minimal working system. Add your system axillaries one at a time until it breaks and examine THAT item and notice how it is powered, and how it finds ground. If it isn't obvious, it may be working, but it may also be broken in the sense of a safety violation (a chassis screw punctured a PC board and hit a power land - or a connector shell nut fell off and the ground is floating).

The added clue of the AM station suggests that there is a POOR connection somewhere. The sense of poor is that it is corroded (this creates a crude radio detector circuit and the amplifiers do the rest). The solution here is to break ALL connections and clean them and reassemble. Often simply twisting connectors that twist will clear the problem, or unjacking and rejacking connector jacks does the same thing. Tightening screws that hold ground leads is the same thing. Corrosion will be obvious, if in doubt, abrade surfaces until you observe bright metal. Tarnish offers the same problem. Use a typing erasure or toothpaste to clean the metal (mild abrasives).

73's
Richard Clark, KB7QHC

# 1627. Re: Microstrip PCB antenna for 2.4 GHz WLAN

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-02 06:04:39 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <ab8eo0hl30mc7hp4dqpeiagvab92le9pi2@4ax.com>
Source record: 87221

On Mon, 1 Nov 2004 23:43:18 +0100, "Kasper Vibe Grevsen"
<kaspervg@post.cNOCAPSybercity.dENMARk> wrote:

>The available space is 163 x 12 mm. A quarter wavelength at 2442.5 MHz is
>30.7 mm.

Hi Kasper,

>I haven't been able to find much info about microstrip design so I
>hope you might be able to give some suggestions as to a good design.

The standard half-wave dipole comes to mind as it so easily fits into
your available space.

>I have thought about 'stretching' a bi-quad to fit the dimensions

Why introduce problems when a simple solution exists?

Or, as Einstein expressed it: "keep it simple, but not too simple."

73's
Richard Clark, KB7QHC

# 1628. Re: The "TRICK" to TV 'type' Coax Cable [Shielded] SWL Loop Antennas {RHF}

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-02 06:33:56 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0411012233.5088c893@posting.google.com>
Source record: 87222
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

Telamon <telamon_spamshield@pacbell.net.is.invalid> wrote in message
>
> No, I'm not proving basic theory and design to you over Usenet. This is
> the wrong newsgroup for that. Go play in rec.radio.amateur.antenna

rec.radio.shortwave is the wrong ng for an antenna related debate????
And we are talking about a receive antenna used by many MWL's, not one
used by hams for transmitting. Wrong NG???
Shit, all that off topic crap must have warped your frigging brain....
I guess if it ain't off topic, or written by some ignorant SOB that
just wants to stir up controversy about Bush/Kerry "dumb and dumber",
it don't belong....Get a grip...

>
> Besides you have have already stated experimental results contrary to
> basic theory and practice to your own satisfaction. How am I going to
> challenge that?

By providing contrasting experimemental results or data... How else???
Are you presently under experimental medication, or are you normally
this slow?

>
> Sorry Markey I'm not playing rec.radio.amateur.antenna game. Go play
> with the other "Professional Trolls."

Well, Telley, I take this to mean you can't provide contrasting
results or data to refute my claims...Fine. Go play with yourself
then. But every time I see you cut down rraa for no good reason, as
you have seen you do a few times recently, I'm gonna jump your ass
like stink on a turd. If you can't take the heat, keep out of the
kitchen. No one has a gun to your head, making you read certain posts,
even if crossposted. And if you disagree with someones "thesis", why
don't you just provide contrasting data or results to refute his
claims. Seems it would be more useful that acting like a jackass, and
calling him a troll, thesis writer, or whatever goofball tag you want
to attach. MK

# 1629. Re: The "TRICK" to TV 'type' Coax Cable [Shielded] SWL Loop Antennas {RHF}

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-02 06:47:16 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <nsaeo0dvhu2d0tt1s6pit45183saitr8bu@4ax.com>
Source record: 87223

On 1 Nov 2004 22:33:56 -0800, nm5k@wt.net (Mark Keith) wrote:

>rec.radio.shortwave is the wrong ng for an antenna related debate????

Hi Mark,

Cool your jets. I once closely observed this group for a month and
found that less than 0.5% of the postings actually corresponded to
discussing Shortwave. Offering advice on antennas resides just below
the noise level and those who get tired of listening to that
background trash come here anyway.

73's
Richard Clark, KB7QHC

# 1630. Re: New Smith Chart Program - "SmartSmith"

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-02 07:07:02 UTC
From: Chuck <wa7rai@raibeam.com>
Message-ID: <AmGhd.4864$GN4.3904@okepread02>
Source record: 87224

Bill Turner <noway@nohow.com> wrote in message
news:rjldo0t83h0scfe8dm89nqvajodq64vua3@4ax.com...
> On Mon, 1 Nov 2004 11:44:40 -0700, "chuck" <wa7rai@raibeam.com> wrote:
>
> >Hi Bob,
> >
> >What a disappointment - spending so much
> >time in downloading your program (three
> >attempts), only to have it fail in its installation.
> >
> >Your installer told me I have an outdated file it
> >needs to replace. After allowing - and rebooting
> >- the installer did not continue. When attempting
> >another install, I get the same response... ad
> >infinitum.
> >
> >Chuck, WA7RAI
>
> ____________________________________________________
>
> I had a similar problem during install. Use msconfig.exe to shut off
> all background apps, reboot and reinstall. Worked for me.
>
> --
> Bill W6WRT
>

Interesting... I've never run across anything
like this before. Did the apps that you shut
down include your firewall, web-bug or Trojan
detectors, and/or anti-virus apps as well?

Chuck

## 1631. Powdered Ferrite

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-02 08:23:40 UTC
From: Radio Man <puns@verizon.net>
Message-ID: <guHhd.4721$RA4.4665@trnddc06>
Source record: 87225

Where in the U.S. can i purchase powdered ferrite in
order to make very large ferrite rod antennas?

# 1632. Does anyone have the 2005 ARRL Handbook??

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-02 08:28:16 UTC
From: Paul Jordan <pauljordan@gci.net>
Message-ID: <10oehejhba3d39c@corp.supernews.com>
Source record: 87226

I'm trying to get a copy of the article about the 60 meter transceiver kit in the book. The stores up here don't have it available yet. I was wondering if someone might burn me a copy of the article so I can get started on the 60 meter kit.

Any help is greatly appreciated.

Paul Jordan
kl0an
Anchorage, AK

# 1633. Re: Powdered Ferrite

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-02 08:31:02 UTC
From: Murray <me@erewhon.com.au>
Message-ID: <418745b5$0$5880$5a62ac22@per-qv1-newsreader-01.iinet.net.au>
Source record: 87227

Look up Steward in Chattanooga.
$10/# last time I bought. (10 years ago! :-) )

Cheers
Murray vk4aok

Radio Man wrote:
> Where in the U.S. can i purchase powdered ferrite in
> order to make very large ferrite rod antennas?
>
>

# 1634. Re: Powdered Ferrite

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-02 08:50:47 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10oeijaojnb9g58@corp.supernews.com>
Source record: 87228

There's no such thing as "powdered ferrite". Ferrites are ceramics, made by firing special clays at high temperatures with proprietary processes. The process is similar in many ways to firing pottery, and making a ferrite rod from "powdered ferrite" would be as hopeless as making a ceramic vase from ground-up coffe mugs.

Roy Lewallen, W7EL

Radio Man wrote:
> Where in the U.S. can i purchase powdered ferrite in
> order to make very large ferrite rod antennas?
>
>

# 1635. Re: The "TRICK" to TV 'type' Coax Cable [Shielded] SWL Loop Antennas {RHF}

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-02 10:04:24 UTC
From: Telamon <telamon_spamshield@pacbell.net.is.invalid>
Message-ID: <telamon_spamshield-0EAD1B.02042302112004@newssvr21-ext.news.prodigy.com>
Source record: 87229
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

In article <25eb70d7.0411012233.5088c893@posting.google.com>,
nm5k@wt.net (Mark Keith) wrote:

> Telamon <telamon_spamshield@pacbell.net.is.invalid> wrote in message
> >
> > No, I'm not proving basic theory and design to you over Usenet. This is
> > the wrong newsgroup for that. Go play in rec.radio.amateur.antenna
>
> rec.radio.shortwave is the wrong ng for an antenna related debate????
> And we are talking about a receive antenna used by many MWL's, not one
> used by hams for transmitting. Wrong NG???
> Shit, all that off topic crap must have warped your frigging brain....
> I guess if it ain't off topic, or written by some ignorant SOB that
> just wants to stir up controversy about Bush/Kerry "dumb and dumber",
> it don't belong....Get a grip...
>
> >
> > Besides you have have already stated experimental results contrary to
> > basic theory and practice to your own satisfaction. How am I going to
> > challenge that?
>
> By providing contrasting experimemental results or data... How else???
> Are you presently under experimental medication, or are you normally
> this slow?
>
> >
> > Sorry Markey I'm not playing rec.radio.amateur.antenna game. Go play
> > with the other "Professional Trolls."
>
> Well, Telley, I take this to mean you can't provide contrasting
> results or data to refute my claims...Fine. Go play with yourself
> then. But every time I see you cut down rraa for no good reason, as
> you have seen you do a few times recently, I'm gonna jump your ass
> like stink on a turd. If you can't take the heat, keep out of the
> kitchen. No one has a gun to your head, making you read certain posts,
> even if crossposted. And if you disagree with someones "thesis", why
> don't you just provide contrasting data or results to refute his
> claims. Seems it would be more useful that acting like a jackass, and
> calling him a troll, thesis writer, or whatever goofball tag you want
> to attach. MK

Hey Markey here is how this is going to work.

< Plonk >

--
Telamon
Ventura, California

# 1636. Re: Help designing trap dipole - ARRL Antenna book no help!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-02 12:14:34 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cm7tn9$4a3$1@titan.btinternet.com>
Source record: 87230

Ken,

There are numerous different overall antenna lenghts which work as well as each other. There are also a variety of different L/C non-critical values. The only difference between them is the feedpoint impedance on the lower frequency band.

But there is only one L/C value which works with each overall antenna length. And vice-versa. And it must be the right one.

The distance of the traps from the feedpoint is determined simply by the frequency of the higher band.

If the overall antenna length is arbitrarily predetermined then you have to calculate the L/C ratio and coil and capacitor values which depend on antenna length in a very complicated manner. Unless you are very lucky you will never find the proper values by experiment.

If you arbitrarily predetermine the L/C value and hence the L and C values by guessing or copying somebody else's antenna, then the correct overall antenna length is easily found by pruning it in the usual manner. The only disadvantage is that the antenna length may not fit nicely into your back yard.

The set of simultaneous equations needed to select the L/C ratio and at the same time fitting the antenna into your back yard, can be solved without you being aware of it by the small, self-contained program TRAPDIP obtainable from website below. Download TRAPDIP in a few seconds. Not zipped-up. User friendly. Run immediately.
---
.....
Regards from Reg, G4FGQ
For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp
.....

"Ken Bessler" <kg0wx@NOSPAMyahoo.com> wrote in message
news:Tpzhd.40784$lp6.34766@okepread01...
> The ARRL antenna book describes the inductive effect
> of traps on lower freqs and how this physically shortens
> the antenna. They talk about L/C ratio and give two
> examples.
>
> Problem is they don't give the formula! #$%#%$!
>
> Here's my antenna - it's a 75/160 trap dipole. The traps

> were designed with W8VVM's software. Cutting the
> 75m portion of the antenna is easy - I need to know how
> long (as a starting point) to cut the 160 m end pieces!
>
> Help!
>
> Details: the traps are 8-1/3 turns of rg58 coax wound
> around a 3-1/2" form. L is 7.211 uH, C is 232.15 pF.
> X is 176.24 ohms. Design freq on 75 is 3.890. Target
> freq for 160 is 1.925. I plan on cutting the 75m wires
> 60.5 feet to start and work up from there but what do
> I cut the 160m ends to start?
>
> Ken KG0WX
>
>
>

# 1637. Re: Does anyone have the 2005 ARRL Handbook??

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-02 12:30:45 UTC
From: w9gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <V5Lhd.355459$D%.177463@attbi_s51>
Source record: 87231

"Paul Jordan" <pauljordan@gci.net> wrote in message
news:10oehejhba3d39c@corp.supernews.com...
> I'm trying to get a copy of the article about the 60 meter transceiver kit
> in the book. The stores up here don't have it available yet. I was
> wondering if someone might burn me a copy of the article so I can get
> started on the 60 meter kit.
>
> Any help is greatly appreciated.
>
> Paul Jordan
> kl0an
> Anchorage, AK

ARRL pre-orders were promptly shipped in October. I will have to look, but
I though this was a rework of an earlier kit.

gb

# 1638. Re: The "TRICK" to TV 'type' Coax Cable [Shielded] SWL Loop Antennas {RHF}

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-02 13:48:16 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <gq3fo0p9igbvmlc0dgii1du898ivle2mte@4ax.com>
Source record: 87232

On Tue, 02 Nov 2004 10:04:24 GMT, Telamon
<telamon_spamshield@pacbell.net.is.invalid> wrote:
>Hey Markey here is how this is going to work.
new-age fractal thinking

# 1639. Re: Microstrip PCB antenna for 2.4 GHz WLAN

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-02 14:28:39 UTC
From: Kasper Vibe Grevsen <kaspervg@post.cNOCAPSybercity.dENMARk>
Message-ID: <cm85ig$1ufo$1@news.cybercity.dk>
Source record: 87233

"Richard Clark" <kb7qhc@comcast.net> skrev i en meddelelse
news:ab8eo0hl30mc7hp4dqpeiagvab92le9pi2@4ax.com...
> On Mon, 1 Nov 2004 23:43:18 +0100, "Kasper Vibe Grevsen"
> <kaspervg@post.cNOCAPSybercity.dENMARk> wrote:
>
>>The available space is 163 x 12 mm. A quarter wavelength at 2442.5 MHz is
>>30.7 mm.
>
> Hi Kasper,
>
> The standard half-wave dipole comes to mind as it so easily fits into
> your available space.

Hi Richard,

thanks for your suggestion,

that means a T-shape as I understand?
The horizontal part should be 2 x 30,7 mm, right?
How long should the vertical line be?
How wide should I make the tracks?
The cable is a 50 ohm coax.

--
med venlig hilsen
Unlock &#65533;rhus - www.unlockaarhus.dk

Kasper Vibe Grevsen
Tlf 30 222 123

# 1640. Re: New Smith Chart Program - "SmartSmith"

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-02 14:43:30 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <2fedndBnNoKaABrcRVn-tQ@comcast.com>
Source record: 87234

"Chuck" <wa7rai@raibeam.com> wrote in message
news:AmGhd.4864$GN4.3904@okepread02...
>
> Bill Turner <noway@nohow.com> wrote in message
> news:rjldo0t83h0scfe8dm89nqvajodq64vua3@4ax.com...
>> On Mon, 1 Nov 2004 11:44:40 -0700, "chuck" <wa7rai@raibeam.com> wrote:
>>
>> >Hi Bob,
>> >
>> >What a disappointment - spending so much
>> >time in downloading your program (three
>> >attempts), only to have it fail in its installation.
>> >
>> >Your installer told me I have an outdated file it
>> >needs to replace. After allowing - and rebooting
>> >- the installer did not continue. When attempting
>> >another install, I get the same response... ad
>> >infinitum.
>> >
>> >Chuck, WA7RAI
>>
>> ------------------------------------------------------------
>>
>> I had a similar problem during install. Use msconfig.exe to shut off
>> all background apps, reboot and reinstall. Worked for me.
>>
>> --
>> Bill W6WRT
>>
>
> Interesting... I've never run across anything
> like this before. Did the apps that you shut
> down include your firewall, web-bug or Trojan
> detectors, and/or anti-virus apps as well?
>
> Chuck
>
I did not shut down anything, but on Windows XP I got 3 or 4 messages that
said the file I was trying to install was older than what was already there.
I kept the existing files. Installed and runs OK. BTW, downloaded at about 3
KBs.

Tam/WB2TT

# 1641. Re: Microstrip PCB antenna for 2.4 GHz WLAN

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-02 15:04:41 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <qf6fo09s5i6h7elkddiohqjq2ddecti9vr@4ax.com>
Source record: 87235

On Tue, 2 Nov 2004 15:28:39 +0100, "Kasper Vibe Grevsen"
<kaspervg@post.cNOCAPSybercity.dENMARk> wrote:
>thanks for your suggestion,
>
>that means a T-shape as I understand?
>The horizontal part should be 2 x 30,7 mm, right?
>How long should the vertical line be?
>How wide should I make the tracks?
>The cable is a 50 ohm coax.

Hi Klaus,

Although perfection requires precision and accuracy, your application
does not demand perfection. Besides, it is unlikely you are either
technically prepared to measure the properties of the antenna, nor buy
equipment that could do it simpler.

There are any number of factors that would impact the measurements you
describe above and one is simply building the antenna on a piece of PC
board (why not simply use wire?). Another point is that the dipole is
a "balanced" design, and your source of radiation is undoubtedly
"unbalanced." This, of course, probably means nothing to you, and
fortunately it has meant nothing to many who have ignored this
distinction too (which underlines that perfection is not required in
ordinary, day-to-day usage). Also, you don't include enough
information to offer an exact solution.

However, to answer your question by the parts:

Yes it is T shaped (see ASCII graphic below with fixed font);

Yes, the horizontal part should be about 2 x 30,7 mm;

The vertical lineS should be as long as they take to reach
the source
and
the ground;

The Horizontal tracks could be as wide as 1mm - if you make them wider
this reduces your need for precision if you wanted to be perfect;

If you are going to use 50 Ohm cable, you don't need vertical leads.

The pictorial equivalent (view with fixed font setting):

```
----------- -----------
| |
| |
```

| |
| |
| |

Returning to issues of perfection. If you encounter problems of reception/transmission, they will be more due to the antenna orientation and placement than they will be due to power level.

Back when we lived in caves, TV came through the air instead of through a cable. We had rituals to adjust Rabbit Ear antennas (a pagan WiMax shrine) until the picture got better. You are about to embark in that same arcane practice - welcome to a brave new world.

73's
Richard Clark, KB7QHC

# 1642. Re: Microstrip PCB antenna for 2.4 GHz WLAN

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-02 15:19:31 UTC
From: Mark <bigfathhairybiker@MAILhot.com>
Message-ID: <4187a44b$0$20212$ed9e5944@reading.news.pipex.net>
Source record: 87236

"Kasper Vibe Grevsen" <kaspervg@post.cNOCAPSybercity.dENMARk> wrote in
message news:cm85ig$1ufo$1@news.cybercity.dk...
> > Hi Kasper,
> >
> > The standard half-wave dipole comes to mind as it so easily fits into
> > your available space.
>
> Hi Richard,
>
> thanks for your suggestion,
>
> that means a T-shape as I understand?
> The horizontal part should be 2 x 30,7 mm, right?
> How long should the vertical line be?
> How wide should I make the tracks?
> The cable is a 50 ohm coax.

It is a lot simpler than that...

A half wave dipole would be two tracks approx 30.7mm long as you say.
But.. you do not need a vertical line.
Coax can attach directly to the centre point.
Width of the tracks also depends on how much space you have.
The wider the tracks the bigger the bandwidth affected.

Also what may effect the whole installation is the polarisation of the
antenna,
horizontal or vertical.

This depends on the antenna on the other device. Same polarisation
recommended!

# 1643. Re: Is that a radio wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-02 16:45:15 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <kQOhd.88751$kz3.76093@fed1read02>
Source record: 87237

"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:41866f31$1_3@127.0.0.1...
> Ed Price wrote:
>> Sadaam didn't need WMD to invade Kuwait or to threaten Saudi Arabia. He
>> certainly had some previously, and had no compunction about using them.
>
> Punishing someone for crimes yet un-committed is un-American and
> un-Constitutional. Methinks the Iraq war is Bush's "One Bridge Too
> Far" (WWII war movie).
> --
> 73, Cecil http://www.qsl.net/w5dxp

When one country (Iraq) invades and annexes another country (Kuwait), the proper response is not simply restoring the status quo. There have to be negative consequences for such aggression. Sadaam (and Iraq) never seemed to understand that concept. The fact that we did not dismember Iraq in 1991 came back to haunt us.

"Crimes yet un-committed"? How stupid do you have to be to not act in your own defense in light of clear threats?

BTW Cecil, as a "British citizen of the World", YOU don't have a Constitution. Some generation, you might want to correct that oversight.

Ed
wb6wsn

# 1644. Re: Is that a radio wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-02 17:13:53 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <afPhd.88762$kz3.24282@fed1read02>
Source record: 87238

```
"chuck" <wa7rai@raibeam.com> wrote in message
news:C8vhd.88148$kz3.43033@fed1read02...
>
> "Ed Price" <edprice@cox.net> wrote in message
> news:2wlhd.87747$kz3.12494@fed1read02...
>>
>> "Chuck" <wa7rai@raibeam.com> wrote in message
>> news:sQehd.3217$GN4.1349@okepread02...
>> >
>> > Ed Price <edprice@cox.net> wrote in message
>> > news:qZdhd.87705$kz3.49376@fed1read02...
>> >>
>> >> "Chuck" <wa7rai@raibeam.com> wrote in message
>> >> news:%zbhd.3210$GN4.3006@okepread02...
>> >> > Yes, Saddam was a first-class jerk and two-
>> >> > bit tyrant, but was not an immediate threat to
>> >> > America - he lost 2 wars and was sanctioned
>> >> > by the UN - his army was left impotent, his
>> >> > major weapons were destroyed after the gulf
>> >> > war, his WMD programs were in shambles,
> <... >
>> >> > GWB is a war criminal - too bad you support
>> >> > a real war criminal - and that's not spin.
>> >>
>> >> Indeed Chuck, that's not spin. I'd call you an honest, straightforward
>> >> propagandist; what we used to simply refer to as a liar.
>> >
>> > You mean like the debunked Swiftboat vets for Bush
>>
>> Your judgement only. Odd, the only time Kerry managed anything, he left
> with
>> 270-some "employees" pissed at him; and they still are, 35 years later.
>
> Perhaps I give greater credibility to the folks
> who served with Kerry in this regard, than
> the vile rhetoric of folks with an un-American
> religious/political agenda. Kerry was not alone
> in his distain for that war, but the hawks who
> opposed his position then, are still carrying a
> grudge now - after all these years - that's both
> obsessive and perverted IMO!
>
> When a President has more loyalty to his
> mega-corporate cronies and the looney
```

> megalomaniac Pat Robertson, than he has
> for the common folk, he does not deserve
> to hold the office.
>
> Chuck
>
>

Some things can be forgiven, some can be forgotten. But how can you savage the opinion of 270-some veterans with a judgement of "obsessive and perverted"? Of course, their feelings are being used for political influence (remember Kerry saying he was "reporting and ready for duty"). But you are way out of line to judge their memories.

I suppose your close really says it all; you say the candidate is loyal to "mega-corporate cronies" and "loonies". Ahhhh, I'm dealing with the Almighty Chuck, the mortal who can discern cronies from friends and who can define the Common Folk. Yep, that answers everything.

Ed
wb6wsn

# 1645. Re: Help!! AM Radio Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-02 17:16:18 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <iOidnVGXUaRLXRrcRVn-jQ@comcast.com>
Source record: 87239

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:qj0eo0pcpvc1u5mgtcf1j66va5fsrh218d@4ax.com...
> On Tue, 02 Nov 2004 02:54:57 GMT, James Harvey
> <spamzap@nowhere.com.invalid> wrote:
>
>>Hi,
>>
>>I have been recording vinyl LPs to my computer the past few days with a
>>grounded phono preamp. I had no problems until today. I am now picking
>>up serious hum and buzz, and I can hear broadcasts from an AM radio
>>station that has a powerful transmitter located in my city, while using
>>the recording software. WTF?
>
> Hi James,
>
> The proper usage is
> "WTF, Over?"
>
>>Is there any way to stop this bs? I have tried various isolation
>>transformers, grounding schemes, and shielded cable configurations to no
>>avail.
>
> What you describe is a ground loop. I bet you have had a weather
> change in the last day or two. (I know, that is almost certain, but a
> recent rainfall, or cessation of raining often introduces these
> problems.)
>
>>I have complained to the station, but got no response from
>>engineering.
>
> It's not their problem.
>
>>Any ideas on what to do? Practical advice appreciated.
>
> Plug ALL of your electronics into the same power strip and plug that
> into the wall. Strip out all wires that go to other equipment (like a
> modem, printer, T1/network connection, scanner, you name it...) make
> sure the monitor shares that same power strip. You say "grounded"
> phono preamp. This is probably antediluvian equipment (a two wire AC
> plug with a dangling wire or knurled nut in back for ground). There
> is every chance that your ground wire is going to an open ground lead
> (did you check the outlet for inverted hot/neutral, hot/ground,
> neutral/ground, open ground?). Is this two wire AC plug polarized?
> You may have a potential suicide adapter - be careful. You might be

> more successful in simply connecting the Phono output directly into
> the sound card Microphone input. If it makes a hellacious hum during
> the connect process, then YES you do have ground problems - you also
> stand the chance of that problem going away when the plug finally
> seats though (my guess is that this has always been the case, and it
> just got more noticeable).
>
> I see you have tried isolation transformerS (why the plural?). If
> you neglect wires that trail off to foreign connections (already
> listed above) this will do nothing but confuse the situation (it only
> takes one wire).
>
> There is a working solution and to find it means starting with a
> minimal working system. Add your system axillaries one at a time
> until it breaks and examine THAT item and notice how it is powered,
> and how it finds ground. If it isn't obvious, it may be working, but
> it may also be broken in the sense of a safety violation (a chassis
> screw punctured a PC board and hit a power land - or a connector shell
> nut fell off and the ground is floating).
>
> The added clue of the AM station suggests that there is a POOR
> connection somewhere. The sense of poor is that it is corroded (this
> creates a crude radio detector circuit and the amplifiers do the
> rest). The solution here is to break ALL connections and clean them
> and reassemble. Often simply twisting connectors that twist will
> clear the problem, or unjacking and rejacking connector jacks does the
> same thing. Tightening screws that hold ground leads is the same
> thing. Corrosion will be obvious, if in doubt, abrade surfaces until
> you observe bright metal. Tarnish offers the same problem. Use a
> typing erasure or toothpaste to clean the metal (mild abrasives).
>
> 73's
> Richard Clark, KB7QHC

In addition to what Richard mentioned, you might also plug a pair of
headphones into the preamp output, and see how that sounds. Furthermore, a
turntable usually has a ground lead. Connect that to the preamp ground.
Something is acting like an antenna, one of these split ferrite cores on the
cable between the turntable and and preamp might help. Keep all leadsshort.
'

Tam/WB2TT

# 1646. Re: Powdered Ferrite

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-02 17:39:09 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <SCPhd.88916$kz3.36776@fed1read02>
Source record: 87240

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:10oeijaojnb9g58@corp.supernews.com...
> There's no such thing as "powdered ferrite". Ferrites are ceramics, made
> by firing special clays at high temperatures with proprietary processes.
> The process is similar in many ways to firing pottery, and making a
> ferrite rod from "powdered ferrite" would be as hopeless as making a
> ceramic vase from ground-up coffe mugs.
>
> Roy Lewallen, W7EL

After the sintering step, the resultant granules are ground down to a reasonably uniform size. These powders (and I wouldn't know what else to call them) can then be compressed into pellets, extruded into rods, mixed with a vehicle and cast as thin films, or sprayed onto substrates. You can even blend them into a binding carrier (like wax or epoxy) and create physical shapes (like rods or blocks).

The density of the ferrite particles can be controlled, yielding inter-particle gaps as desired.

Ferrite exists in it's granular (powdered) form. However, since there's likely little market for this stage, you might have trouble buying a few pounds of it.

Ed
wb6wsn

# 1647. Re: New Smith Chart Program - "SmartSmith"

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-02 18:14:09 UTC
From: "J. Mc Laughlin" <jcm@power-net.net>
Message-ID: <10ofjhk4oua177b@corp.supernews.com>
Source record: 87241

Even though I did not have the advantage of attending Texas A&M, I agree with Cecil. In classes for real electrical engineers, the Smith Chart still provides a superb means for instilling important concepts. A means that can then be reinforced with computations.
In my experience, the greatest advantage of including the Smith Chart in real education resides in the long term effects. Forever, an engineer will be able to visualize effects and be able, even on the telephone, to describe effects to another similarly "equipped" engineer. The Smith Chart is an important part of the way we communicate. Its utility insures its preservation for a long time to come.

73 Mac N8TT

--
J. Mc Laughlin; Michigan U.S.A.
Home: JCM@Power-Net.Net
"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:41866bac$1_2@127.0.0.1...
> Reg Edwards wrote:
> > Smith Charts went out of date wth slide rules and log tables with the
advent
> > of the pocket calculator.
>
> An abstract math equation will get one the answer but not necessarily
> illustrate what is happening in reality. We see the results of that here
> on this newsgroup. The appeal of the Smith Chart is that it gives one
> a graphic conceptual grasp of reality while using those same equations
> to solve the problem. A picture *is* worth a thousand words. We can
> see the (Vfor+Vref)/(Ifor/Iref) impedance displayed right there on
> the SWR circle.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>

# 1648. Re: Is that a radio wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-02 19:29:44 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <IeRhd.57381$OD2.56549@bgtnsc05-news.ops.worldnet.att.net>
Source record: 87243

Randy,

I value and believe in my emotions.

Now what should I do?

Seriously, "informed decision making" is a personal action that of necessity includes the context of an individual's emotions. What is informed for you may be just plain stupid for me, and vice versa. How could one ever completely separate "informed" decisions from emotions?

73,
Gene
W4SZ

Theplanters95 wrote:

>
> Go vote on Tuesday. Vote your values and beliefs. Remember that your vote
> last 4 years. I am afraid many people are going to vote out of emotions,
> rather than informed decision making.
>

# 1649. Re: The "TRICK" to TV 'type' Coax Cable [Shielded] SWL Loop Antennas {RHF}

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-02 19:32:34 UTC
From: rhf-newsgroups@pacbell.net
Message-ID: <ff3145e8.0411021132.2e5e2f99@posting.google.com>
Source record: 87244
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

MK,

What you may be missing, is that the 'average' End-User of the
Coax Cable [Shielded] Shortwave Listener's (SWL) Loop Antenna
is simply 'interested' in the "Practical Application" and RESULTS
Gain from using [The Device].

Their "Focus Is:
* How To Build/Buy It.
* How To Use It.
* What To Expect From It.

The 'target' "Reader" of the 'original' "Post" was the everyday
Shortwave Listener { No License Required } .

Know Your Reader - Communicate Effectively - KISAP !
[ Keep It Simple And Practical ! ]

REMEMBER: What Works... WORKS ! { No Theory Required }

iane ~ RHF
.
.
= = = nm5k@wt.net (Mark Keith) wrote in message
= = = news:<25eb70d7.0411012233.5088c893@posting.google.com>...
> Telamon <telamon_spamshield@pacbell.net.is.invalid> wrote in message
> >
> > No, I'm not proving basic theory and design to you over Usenet. This is
> > the wrong newsgroup for that. Go play in rec.radio.amateur.antenna
>
> rec.radio.shortwave is the wrong ng for an antenna related debate????
> And we are talking about a receive antenna used by many MWL's, not one
> used by hams for transmitting. Wrong NG???
> Shit, all that off topic crap must have warped your frigging brain....
> I guess if it ain't off topic, or written by some ignorant SOB that
> just wants to stir up controversy about Bush/Kerry "dumb and dumber",
> it don't belong....Get a grip...
>
> >
> > Besides you have have already stated experimental results contrary to
> > basic theory and practice to your own satisfaction. How am I going to
> > challenge that?
>
> By providing contrasting experimemental results or data... How else???

> Are you presently under experimental medication, or are you normally
> this slow?
>
> >
> > Sorry Markey I'm not playing rec.radio.amateur.antenna game. Go play
> > with the other "Professional Trolls."
>
> Well, Telley, I take this to mean you can't provide contrasting
> results or data to refute my claims...Fine. Go play with yourself
> then. But every time I see you cut down rraa for no good reason, as
> you have seen you do a few times recently, I'm gonna jump your ass
> like stink on a turd. If you can't take the heat, keep out of the
> kitchen. No one has a gun to your head, making you read certain posts,
> even if crossposted. And if you disagree with someones "thesis", why
> don't you just provide contrasting data or results to refute his
> claims. Seems it would be more useful that acting like a jackass, and
> calling him a troll, thesis writer, or whatever goofball tag you want
> to attach. MK

# 1650. Re: Powdered Ferrite

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-02 19:34:49 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10ofoau3bvs6fbd@corp.supernews.com>
Source record: 87245

I stand corrected. I hadn't encountered ground down ferrite as you describe. I should have realized it existed, though, since I've used ferrite loaded paints and silicone rubber, which must contain ferrite in this form. Thanks for the correction, and to the original poster I apologize -- please disregard my posting.

Am I correct in assuming you'd end up with ferrites of lower permeability (and higher saturation flux density) than the unpowdered original, due the inevitable air gaps between particles?

A major manufacturer of ferrite-loaded materials such as paints and silicone rubbers is Emerson & Cuming. They might be a possible source of ferrite in powdered form.

Roy Lewallen, W7EL

Ed Price wrote:

>
> "Roy Lewallen" <w7el@eznec.com> wrote in message
> news:10oeijaojnb9g58@corp.supernews.com...
>
>> There's no such thing as "powdered ferrite". Ferrites are ceramics,
>> made by firing special clays at high temperatures with proprietary
>> processes. The process is similar in many ways to firing pottery, and
>> making a ferrite rod from "powdered ferrite" would be as hopeless as
>> making a ceramic vase from ground-up coffe mugs.
>>
>> Roy Lewallen, W7EL
>
>
>
> After the sintering step, the resultant granules are ground down to a
> reasonably uniform size. These powders (and I wouldn't know what else to
> call them) can then be compressed into pellets, extruded into rods,
> mixed with a vehicle and cast as thin films, or sprayed onto substrates.
> You can even blend them into a binding carrier (like wax or epoxy) and
> create physical shapes (like rods or blocks).
>
> The density of the ferrite particles can be controlled, yielding
> inter-particle gaps as desired.
>
> Ferrite exists in it's granular (powdered) form. However, since there's
> likely little market for this stage, you might have trouble buying a few
> pounds of it.
>

> Ed
> wb6wsn
>

## 1651. Re: Is that a radio wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-02 19:50:54 UTC
From: chuck <wa7rai@raibeam.com>
Message-ID: <HARhd.90365$kz3.85164@fed1read02>
Source record: 87247

```
"Ed Price" <edprice@cox.net> wrote in message
news:afPhd.88762$kz3.24282@fed1read02...
>
> "chuck" <wa7rai@raibeam.com> wrote in message
> news:C8vhd.88148$kz3.43033@fed1read02...
> >
> > "Ed Price" <edprice@cox.net> wrote in message
> > news:2wlhd.87747$kz3.12494@fed1read02...
> >>
> >> "Chuck" <wa7rai@raibeam.com> wrote in message
> >> news:sQehd.3217$GN4.1349@okepread02...
> >> >
> >> > Ed Price <edprice@cox.net> wrote in message
> >> > news:qZdhd.87705$kz3.49376@fed1read02...
> >> >>
> >> >> "Chuck" <wa7rai@raibeam.com> wrote in message
> >> >> news:%zbhd.3210$GN4.3006@okepread02...
> >> >> > Yes, Saddam was a first-class jerk and two-
> >> >> > bit tyrant, but was not an immediate threat to
> >> >> > America - he lost 2 wars and was sanctioned
> >> >> > by the UN - his army was left impotent, his
> >> >> > major weapons were destroyed after the gulf
> >> >> > war, his WMD programs were in shambles,
> > > <... >
> >> >> > GWB is a war criminal - too bad you support
> >> >> > a real war criminal - and that's not spin.
> >> >>
> >> >> Indeed Chuck, that's not spin. I'd call you an honest,
straightforward
> >> >> propagandist; what we used to simply refer to as a liar.
> >> >
> >> > You mean like the debunked Swiftboat vets for Bush
> >>
> >> Your judgement only. Odd, the only time Kerry managed anything, he left
> > with
> >> 270-some "employees" pissed at him; and they still are, 35 years later.
> > >
> > > Perhaps I give greater credibility to the folks
> > > who served with Kerry in this regard, than
> > > the vile rhetoric of folks with an un-American
> > > religious/political agenda. Kerry was not alone
> > > in his distain for that war, but the hawks who
> > > opposed his position then, are still carrying a
> > > grudge now - after all these years - that's both
```

> > obsessive and perverted IMO!
> >
> > When a President has more loyalty to his
> > mega-corporate cronies and the looney
> > megalomaniac Pat Robertson, than he has
> > for the common folk, he does not deserve
> > to hold the office.
> >
> > Chuck
> >
> >
>
> Some things can be forgiven, some can be forgotten. But how can you savage
> the opinion of 270-some veterans with a judgement of "obsessive and
> perverted"? Of course, their feelings are being used for political
influence
> (remember Kerry saying he was "reporting and ready for duty"). But you are
> way out of line to judge their memories.

---
Ed,

Out of line? ROTFLMAO!

One cannot give credence to a piddly few
malcontents (270 out of millions) who have
an agenda - mainly that of the Christian
Coaliton. In contrast, the folks who served
with Kerry, have an entirely different story to
tell - a credible one!

>
> I suppose your close really says it all; you say the candidate is loyal to
> "mega-corporate cronies" and "loonies". Ahhhh, I'm dealing with the
Almighty
> Chuck, the mortal who can discern cronies from friends and who can define
> the Common Folk. Yep, that answers everything.

It is common knowledge that the
Republican party is traditionally aligned
to the rich and powerful, which includes
mega-corporate interests - "no bid"
Halliburton included - only a fool would
refute this.

As far as loonies, I've named only one:
the one who's agenda is to "replace the
constitution with the 10 commandments"
and to "Disenfranchize all liberals".

Rather than offer a credible retort, you
attempt to demean my position.

Intellectual honesty isn't one of your
strong points, I see.

Chuck

> Ed
> wb6wsn
>

# 1652. Re: New Smith Chart Program - "SmartSmith"

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-02 20:00:36 UTC
From: chuck <wa7rai@raibeam.com>
Message-ID: <HARhd.90366$kz3.46900@fed1read02>
Source record: 87246

"Tam/WB2TT" <t-tammaru@c0mca$t.net> wrote in message
news:2fedndBnNoKaABrcRVn-tQ@comcast.com...
>
> "Chuck" <wa7rai@raibeam.com> wrote in message
> news:AmGhd.4864$GN4.3904@okepread02...
> >
> > Bill Turner <noway@nohow.com> wrote in message
> > news:rjldo0t83h0scfe8dm89nqvajodq64vua3@4ax.com...
> >> On Mon, 1 Nov 2004 11:44:40 -0700, "chuck" <wa7rai@raibeam.com> wrote:
> >>
> >> >Hi Bob,
> >> >
> >> >What a disappointment - spending so much
> >> >time in downloading your program (three
> >> >attempts), only to have it fail in its installation.
> >> >
> >> >Your installer told me I have an outdated file it
> >> >needs to replace. After allowing - and rebooting
> >> >- the installer did not continue. When attempting
> >> >another install, I get the same response... ad
> >> >infinitum.
> >> >
> >> >Chuck, WA7RAI
> >>
> >> _____________________________________________________
> >>
> >> I had a similar problem during install. Use msconfig.exe to shut off
> >> all background apps, reboot and reinstall. Worked for me.
> >>
> >> --
> >> Bill W6WRT
> >>
> >
> > Interesting... I've never run across anything
> > like this before. Did the apps that you shut
> > down include your firewall, web-bug or Trojan
> > detectors, and/or anti-virus apps as well?
> >
> > Chuck
> >
> I did not shut down anything, but on Windows XP I got 3 or 4 messages that
> said the file I was trying to install was older than what was already
there.
> I kept the existing files. Installed and runs OK. BTW, downloaded at about

3
> KBs.
>
> Tam/WB2TT
>
Hi Tam,

Since I'm not running XP, perhaps this explains it, though this dosen't dispell my curiosity... I naturally distrust any freeware that installs abnormally... spyware, and all that stuff, y'know.

Chuck

# 1653. Balun description: who is right

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-02 20:23:28 UTC
From: Johann Höchtl <johann.hoechtl@myrealbox.com>
Message-ID: <4187ec4f$0$16896$91cee783@newsreader02.highway.telekom.at>
Source record: 87248

I built an "ugly" air wound balun on a PVC water pipe according to this description
http://www.hamuniverse.com/balun.html

I get 24 turns on a pipe having 75mm (about 3 inches) diameter measured outside.

But recently i had the chance to look up the section in the ARRL antenna book and there the number of windings is considerably smaller at a higher winding radius.

Which description is right? Or does either have advantages and drawbacks?

# 1654. Dynamic dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-02 20:28:40 UTC
From: Johann Höchtl <johann.hoechtl@myrealbox.com>
Message-ID: <4187ed86$0$17936$91cee783@newsreader01.highway.telekom.at>
Source record: 87249

I constructed a dipole. Adjusting the swr requires me to shorten the ends. As it is meant for "semi-mobile" use it will eventually become to short.

I do not want to replace the wire after a short time. Is it possible to bend the ends back a bit. If so, can i fix this bent ends using electric tape or cable tie?

Greetings,
Johann

# 1655. Re: Is that a radio wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-02 20:48:17 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <4187f0a5$1_4@127.0.0.1>
Source record: 87250

Ed Price wrote:
> When one country (Iraq) invades and annexes another country (Kuwait),
> the proper response is not simply restoring the status quo. There have
> to be negative consequences for such aggression.

Seems the statue of limitations on that Kuwaiti invasion would have run
out after 13 years. Should England be punished some more for invading
the United States in 1812?

> "Crimes yet un-committed"? How stupid do you have to be to not act in
> your own defense in light of clear threats?

Nowhere in The Constitution does it grant the federal government the
right to fight an undeclared preemptive war like the present Iraqi war.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

# 1656. Re: Balun description: who is right

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-02 21:00:43 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <4187f38f$1_3@127.0.0.1>
Source record: 87251

Johann Hï¿½chtl wrote:

> I built an "ugly" air wound balun on a PVC water pipe according to this
> description
> http://www.hamuniverse.com/balun.html
>
> I get 24 turns on a pipe having 75mm (about 3 inches) diameter measured
> outside.
>
> But recently i had the chance to look up the section in the ARRL antenna
> book and there the number of windings is considerably smaller at a
> higher winding radius.
>
> Which description is right? Or does either have advantages and drawbacks?

The optimum number of turns depends upon the band. Such a balun optimized
for 160m may not be effective on 10m and vice versa. OTOH, ferrite baluns
can be designed to function over a 10:1 frequency range by the proper
choice of the material for the toroid.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

# 1657. Re: Is that a radio wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-02 21:04:33 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <4187f474$1_3@127.0.0.1>
Source record: 87252

Theplanters95 wrote:
> The Bible tells us to pray for our leaders. We need to pray for our leaders
> from the local elections all the way to the national. And please, no Bible or
> Christian bashing :-)

If anyone ever furnishes proof that there is someone listening
to those prayers, I will join in.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

# 1658. Re: So what happened to Mr Fractal?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-02 21:57:00 UTC
From: w1rfi@aol.com
Message-ID: <20041102165700.16106.00000002@mb-m27.aol.com>
Source record: 87253

He is on QRZ.com, advocating that amateurs should accept BPL because mobile operation is only nostalgic.

Ed

## 1659. Re: Dynamic dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-02 22:03:53 UTC
From: caskamite@hotmail.com
Message-ID: <cm9094$2le$1@newsg4.svr.pol.co.uk>
Source record: 87254

make the wire a bit longer at each end,
then wind the extra into a coil.
You can stretch or compress the coil to tune the ant then secure it with
plastic wrap tags to hold.

## 1660. Re: Is that a radio wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-02 22:11:52 UTC
From: microwaves@blueyonder.co.uk
Message-ID: <418905d2.33952421@news.blueyonder.co.uk>
Source record: 87255

On 01 Nov 2004 04:47:54 GMT, theplanters95@aol.comnospam
(Theplanters95) wrote:

>
>The Bible tells us to pray for our leaders. We need to pray for our leaders
>from the local elections all the way to the national. And please, no Bible or
>Christian bashing :-)
>
>Randy ka4nma

But several of your past presidents and famous men were agnostics, if
not atheists ... eg George Washington. Why pray for those who dont
believe in the power of prayer ( like me!)

## 1661. Re: Is that a radio wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-02 22:13:56 UTC
From: microwaves@blueyonder.co.uk
Message-ID: <418a0658.34087214@news.blueyonder.co.uk>
Source record: 87256

On Tue, 2 Nov 2004 08:45:15 -0800, "Ed Price" <edprice@cox.net> wrote:

>When one country (Iraq) invades and annexes another country (Kuwait), the
>proper response is not simply restoring the status quo. There have to be
>negative consequences for such aggression. Sadaam (and Iraq) never seemed to
>understand that concept. The fact that we did not dismember Iraq in 1991
>came back to haunt us.

What would you have said if the UK invaded the US when you
(USA)invaded Granada a few years ago?

# 1662. Re: Is that a radio wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-02 22:16:15 UTC
From: David J Windisch <davidw@copper.net>
Message-ID: <41880777_5@newsfeed.slurp.net>
Source record: 87257

Hi, Cecil:

Worldlings have made that challenge since time immemorial.

The someone listening is the author of prayer. Join in now, by praying for the grace of faith, just in case your position of apparent unbelief turns out to be the wrong one for all eternity.

73, Dave, N3HE

"Cecil Moore" <w5dxp@hotmail.com> wrote in message news:4187f474$1_3@127.0.0.1...
> Theplanters95 wrote:
> > The Bible tells us to pray for our leaders. We need to pray for our leaders
> > from the local elections all the way to the national. And please, no Bible or
> > Christian bashing :-)
>
> If anyone ever furnishes proof that there is someone listening
> to those prayers, I will join in.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>

# 1663. Re: Dynamic dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-02 22:21:31 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <cm91ei$8eq$1@newshost.mot.com>
Source record: 87261

"Johann Höchtl" <johann.hoechtl@myrealbox.com> wrote in message
news:4187ed86$0$17936$91cee783@newsreader01.highway.telekom.at...
> I constructed a dipole. Adjusting the swr requires me to shorten the
> ends. As it is meant for "semi-mobile" use it will eventually become to
> short.

Don't know what this means...? "...eventually become to short..." you
mean too short from all the bending and breakge from the many adjustments
you had to make over time ??

>
> I do not want to replace the wire after a short time. Is it possible to
> bend the ends back a bit. If so, can i fix this bent ends using electric
> tape or cable tie?
> Greetings,
> Johann

"Fix this"? Fix what?
Not sure just what you are asking, but...
My 40M dipole (inverted Vee) has the last two feet of wire wraped back up
the wire, inward toard the center. I just put the wire through the end
insulator and bring it back along the dipole and wrap it around to hold it
on place. No tape, just wrap it tight enough to hold itself. I adjust the
min SWR frequency that way. BTW, it is insulated wire.
73,
--
Steve N, K,9;d, c. i My email has no u's.

# 1664. Re: Is that a radio wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-02 22:27:22 UTC
From: microwaves@blueyonder.co.uk
Message-ID: <41880504.33746554@news.blueyonder.co.uk>
Source record: 87258

On Mon, 01 Nov 2004 00:15:12 GMT, "NN7Kex<NOSPAM>k7zfg"
<"NN7Kex<NOSPAM>k7zfg"@sbcglobal.net> wrote:

>And, as WE WERE ATTACKED ON 9/11, we were as justified in retaliating
>as in ANY period of time in the history of the Republic--

You were not attacked by Saddam Hussein on 9/11 so why attack him?

# 1665. Re: Help designing trap dipole - ARRL Antenna book no help!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-02 22:35:23 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <cm928h$8hu$1@newshost.mot.com>
Source record: 87260

"Ken Bessler" <kg0wx@NOSPAMyahoo.com> wrote in message
news:Tpzhd.40784$lp6.34766@okepread01...
> The ARRL antenna book describes the inductive effect
> of traps on lower freqs and how this physically shortens
> the antenna. They talk about L/C ratio and give two
> examples.
>
> Problem is they don't give the formula! #$%#%$!
>
> Here's my antenna - it's a 75/160 trap dipole. The traps
> were designed with W8VVM's software. Cutting the
> 75m portion of the antenna is easy - I need to know how
> long (as a starting point) to cut the 160 m end pieces!
> [...snip...] Trap data un needed.

Summarizing the other two posts and what you alredy know. With the effects of the surroundings the formulas won't be much good anyway.

Put the traps at the ends of the standard 75M dipole [["75m portion ...is easy ..."]]. Make this a little long if U like. Add a little too much wire for the 160, then measure the 75M and 160M min SWR freq. Adjust the 75M length for your 75M freq of interest. Then, using 468/F figure out how far off you appear to be on the 160 length. Trim off about 80% of that value, then trim-by-SWR the rest of the way.

Sound good fellas?

[[personally, i think if ur <2:1 makes no diff at the other end]]]
--
Steve N, K,9;d, c. i My email has no u's.

# 1666. Re: Dynamic dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-02 22:54:54 UTC
From: Floyd Sense <fsense@copper.net>
Message-ID: <418810a3_1@newsfeed.slurp.net>
Source record: 87259

I usually cut the dipole several feet too long, run the end through the insulator, then tie the end back to the wire using a copper "split nut". I can then tune the antenna to resonance by loosening the split nut and moving the ends as required.

K8AC

"Johann H&#65533;chtl" <johann.hoechtl@myrealbox.com> wrote in message news:4187ed86$0$17936$91cee783@newsreader01.highway.telekom.at...
>I constructed a dipole. Adjusting the swr requires me to shorten the ends.
>As it is meant for "semi-mobile" use it will eventually become to short.
>
> I do not want to replace the wire after a short time. Is it possible to
> bend the ends back a bit. If so, can i fix this bent ends using electric
> tape or cable tie?
>
> Greetings,
> Johann

# 1667. Re: Help!! AM Radio Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-02 23:19:07 UTC
From: James Harvey <spamzap@nowhere.com.invalid>
Message-ID: <spamzap-EC82BF.17201502112004@news1.west.earthlink.net>
Source record: 87262

In article <qj0eo0pcpvc1u5mgtcf1j66va5fsrh218d@4ax.com>,
Richard Clark <kb7qhc@comcast.net> wrote:

> On Tue, 02 Nov 2004 02:54:57 GMT, James Harvey
> <spamzap@nowhere.com.invalid> wrote:
>
> >Hi,
> >
> >I have been recording vinyl LPs to my computer the past few days with a
> >grounded phono preamp. I had no problems until today. I am now picking
> >up serious hum and buzz, and I can hear broadcasts from an AM radio
> >station that has a powerful transmitter located in my city, while using
> >the recording software. WTF?
>
> Hi James,
>
> The proper usage is
> "WTF, Over?"
>
> >Is there any way to stop this bs? I have tried various isolation
> >transformers, grounding schemes, and shielded cable configurations to no
> >avail.
>
> What you describe is a ground loop. I bet you have had a weather
> change in the last day or two. (I know, that is almost certain, but a
> recent rainfall, or cessation of raining often introduces these
> problems.)
>
> >I have complained to the station, but got no response from
> >engineering.
>
> It's not their problem.
>
> >Any ideas on what to do? Practical advice appreciated.
>
> Plug ALL of your electronics into the same power strip and plug that
> into the wall. Strip out all wires that go to other equipment (like a
> modem, printer, T1/network connection, scanner, you name it...) make
> sure the monitor shares that same power strip. You say "grounded"
> phono preamp. This is probably antediluvian equipment (a two wire AC
> plug with a dangling wire or knurled nut in back for ground). There
> is every chance that your ground wire is going to an open ground lead
> (did you check the outlet for inverted hot/neutral, hot/ground,
> neutral/ground, open ground?). Is this two wire AC plug polarized?

> You may have a potential suicide adapter - be careful. You might be
> more successful in simply connecting the Phono output directly into
> the sound card Microphone input. If it makes a hellacious hum during
> the connect process, then YES you do have ground problems - you also
> stand the chance of that problem going away when the plug finally
> seats though (my guess is that this has always been the case, and it
> just got more noticeable).
>
> I see you have tried isolation transformerS (why the plural?). If
> you neglect wires that trail off to foreign connections (already
> listed above) this will do nothing but confuse the situation (it only
> takes one wire).
>
> There is a working solution and to find it means starting with a
> minimal working system. Add your system axillaries one at a time
> until it breaks and examine THAT item and notice how it is powered,
> and how it finds ground. If it isn't obvious, it may be working, but
> it may also be broken in the sense of a safety violation (a chassis
> screw punctured a PC board and hit a power land - or a connector shell
> nut fell off and the ground is floating).
>
> The added clue of the AM station suggests that there is a POOR
> connection somewhere. The sense of poor is that it is corroded (this
> creates a crude radio detector circuit and the amplifiers do the
> rest). The solution here is to break ALL connections and clean them
> and reassemble. Often simply twisting connectors that twist will
> clear the problem, or unjacking and rejacking connector jacks does the
> same thing. Tightening screws that hold ground leads is the same
> thing. Corrosion will be obvious, if in doubt, abrade surfaces until
> you observe bright metal. Tarnish offers the same problem. Use a
> typing erasure or toothpaste to clean the metal (mild abrasives).
>
> 73's
> Richard Clark, KB7QHC

Thank you. I will try all of your suggestions. I did forget to mention that I am using a phono premp, which has a grounding lug on it for the phono. The phono IS rather old and so requires the use of a preamp. The phono and the preamp AC adapter are plugged into the same wall socket via a 3-socket extension cord, away from all other electrical equipment except the computer.

It just struck me as odd that I'm suddenly having this problem now. I had this setup working fine for over a week and now this. I did not unplug/replug any connections or move any of the equipment. I know it's not the radio station's problem but I was hoping they might at least try to explain to me what to do. Oh, well.

James

--
Real replies may be sent to zookini33 <at> hotmail <dot> com.
Spam trap is in place. This posting does NOT constitute
an agreement to accept email of a bulk or commercial nature.

http://home.earthlink.net/~zewkini/

## 1668. Telescopic to coax adaptor?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-02 23:35:14 UTC
From: mike.s.spence@btopenworld.com
Message-ID: <c549c044.0411021535.2328d81a@posting.google.com>
Source record: 87263

Is there a recognised way to connect a radio that just has a
telescopic aerial to a coax cable so that an external aerial can be
used?

If not, has anyone got any 'Heath Robinson' ideas?

Thanks

# 1669. Re: Is that a radio wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-02 23:47:04 UTC
From: "NN7Kex<NOSPAM>k7zfg" <"NN7Kex<NOSPAM>k7zfg"@sbcglobal.net>
Message-ID: <Y%Uhd.37871$QJ3.14089@newssvr21.news.prodigy.com>
Source record: 87264

Peter wrote:
> On Mon, 01 Nov 2004 00:15:12 GMT, "NN7Kex<NOSPAM>k7zfg"
> <"NN7Kex<NOSPAM>k7zfg"@sbcglobal.net> wrote:
>
>
>>And, as WE WERE ATTACKED ON 9/11, we were as justified in retaliating
>>as in ANY period of time in the history of the Republic--
>
>
> You were not attacked by Saddam Hussein on 9/11 so why attack him?
Then, just what was that training camp , in Iraq for? It sure wasn't
for a Flight Training School!

--
To reply, remove the <NOSPAM>

## 1670. Re: Telescopic to coax adaptor?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-03 00:06:14 UTC
From: jgboyles@aol.com
Message-ID: <20041102190614.06239.00000015@mb-m29.aol.com>
Source record: 87265

>Is there a recognised way to connect a radio that just has a telescopic aerial
to a coax cable so that an external aerial can be used?

Sure, just connect a short jumper from the center conductor of the coax to the
telescopic antenna.
What is a 'Heath Robinson' idea? Is that something desirable?

73 Gary N4AST

# 1671. Re: Balun description: who is right

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-03 00:53:51 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cm9a6v$2j3$1@hercules.btinternet.com>
Source record: 87266

From MY copy of the message I sent containing the binary attachment I get no response by clicking the program's icon or the 'paper clip'.

I get a message which says "Outlook Express has made the attachment inaccessible". So its in my computer somewhere but I can't get at it. Not that I want it.

At some time in the distant past I may have set OE to reject suspicious non-standard attachments.

But out of curiosity, has anyone managed to download program SELFRES2 ?

Or has it been rejected simply because its a binary file sent via a newsgroup?

Thank you for your cooperation.

Although the program is finished I am reluctant to make it generally available via my website because it has not been tested against actual coils for spurious responses in impedance resonant curves which might restrict the operating bandwidth at the higher frequencies. It's unexpected defects in the coils I am interested in rather than defects in the program.
---
Reg.

## 1672. Re: Is that a radio wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-03 01:02:42 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <G6Whd.91362$kz3.46015@fed1read02>
Source record: 87267

```
"chuck" <wa7rai@raibeam.com> wrote in message
news:HARhd.90365$kz3.85164@fed1read02...
>
> "Ed Price" <edprice@cox.net> wrote in message
> news:afPhd.88762$kz3.24282@fed1read02...
>>
>> "chuck" <wa7rai@raibeam.com> wrote in message
>> news:C8vhd.88148$kz3.43033@fed1read02...
>> >
>> > "Ed Price" <edprice@cox.net> wrote in message
>> > news:2wlhd.87747$kz3.12494@fed1read02...
>> >>
>> >> "Chuck" <wa7rai@raibeam.com> wrote in message
>> >> news:sQehd.3217$GN4.1349@okepread02...
>> >> >
>> >> > Ed Price <edprice@cox.net> wrote in message
>> >> > news:qZdhd.87705$kz3.49376@fed1read02...
>> >> >>
>> >> >> "Chuck" <wa7rai@raibeam.com> wrote in message
>> >> >> news:%zbhd.3210$GN4.3006@okepread02...
>> >> >> > Yes, Saddam was a first-class jerk and two-
>> >> >> > bit tyrant, but was not an immediate threat to
>> >> >> > America - he lost 2 wars and was sanctioned
>> >> >> > by the UN - his army was left impotent, his
>> >> >> > major weapons were destroyed after the gulf
>> >> >> > war, his WMD programs were in shambles,
>> > <... >
>> >> >> > GWB is a war criminal - too bad you support
>> >> >> > a real war criminal - and that's not spin.
>> >> >>
>> >> >> Indeed Chuck, that's not spin. I'd call you an honest,
> straightforward
>> >> >> propagandist; what we used to simply refer to as a liar.
>> >> >
>> >> > You mean like the debunked Swiftboat vets for Bush
>> >>
>> >> Your judgement only. Odd, the only time Kerry managed anything, he
>> >> left
>> > with
>> >> 270-some "employees" pissed at him; and they still are, 35 years
>> >> later.
>> >
>> > Perhaps I give greater credibility to the folks
>> > who served with Kerry in this regard, than
```

>> > the vile rhetoric of folks with an un-American
>> > religious/political agenda. Kerry was not alone
>> > in his distain for that war, but the hawks who
>> > opposed his position then, are still carrying a
>> > grudge now - after all these years - that's both
>> > obsessive and perverted IMO!
>> >
>> > When a President has more loyalty to his
>> > mega-corporate cronies and the looney
>> > megalomaniac Pat Robertson, than he has
>> > for the common folk, he does not deserve
>> > to hold the office.
>> >
>> > Chuck
>> >
>> >
>>
>> Some things can be forgiven, some can be forgotten. But how can you
>> savage
>> the opinion of 270-some veterans with a judgement of "obsessive and
>> perverted"? Of course, their feelings are being used for political
> influence
>> (remember Kerry saying he was "reporting and ready for duty"). But you
>> are
>> way out of line to judge their memories.
>
> ----------------------------------------------------------------
> Ed,
>
> Out of line? ROTFLMAO!
>
> One cannot give credence to a piddly few
> malcontents (270 out of millions) who have
> an agenda - mainly that of the Christian
> Coaliton. In contrast, the folks who served
> with Kerry, have an entirely different story to
> tell - a credible one!
>
>>
>> I suppose your close really says it all; you say the candidate is loyal
>> to
>> "mega-corporate cronies" and "loonies". Ahhhh, I'm dealing with the
> Almighty
>> Chuck, the mortal who can discern cronies from friends and who can define
>> the Common Folk. Yep, that answers everything.
>
> It is common knowledge that the
> Republican party is traditionally aligned
> to the rich and powerful, which includes
> mega-corporate interests - "no bid"

> Halliburton included - only a fool would
> refute this.
>
> As far as loonies, I've named only one:
> the one who's agenda is to "replace the
> constitution with the 10 commandments"
> and to "Disenfranchize all liberals".
>
> Rather than offer a credible retort, you
> attempt to demean my position.
> Intellectual honesty isn't one of your
> strong points, I see.
>
> Chuck

On the contrary, intellectual honesty is something you couldn't recognize if it were stuffed up your nose, sideways.

Ed

# 1673. Re: Balun description: who is right

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-03 01:07:20 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <cbWhd.828727$Gx4.307733@bgtnsc04-news.ops.worldnet.att.net>
Source record: 87268

Reg,

I downloaded and launched the program without difficulty.

It is generally considered "unsafe" to pass around naked 'exe' files in newsgroups. It is quite typical that newsreaders have a default to disallow such files. I have also seen downloads of 'exe' files that came through corrupted for some reason. I do not know why.

In any case the difficulty with bare 'exe' files is one reason that many files are zipped up.

73,
Gene
W4SZ

(This group is set up as a non-binary group. However, there is no mechanism that prevent binary attachments, so that would not be the cause of the problem you report.)

Reg Edwards wrote:
> From MY copy of the message I sent containing the binary attachment I get no
> response by clicking the program's icon or the 'paper clip'.
>
> I get a message which says "Outlook Express has made the attachment
> inaccessible". So its in my computer somewhere but I can't get at it. Not
> that I want it.
>
> At some time in the distant past I may have set OE to reject suspicious
> non-standard attachments.
>
> But out of curiosity, has anyone managed to download program SELFRES2 ?
>
> Or has it been rejected simply because its a binary file sent via a
> newsgroup?
>
> Thank you for your cooperation.
>
> Although the program is finished I am reluctant to make it generally
> available via my website because it has not been tested against actual coils
> for spurious responses in impedance resonant curves which might restrict
> the operating bandwidth at the higher frequencies. It's unexpected defects
> in the coils I am interested in rather than defects in the program.
> ----
> Reg.
>

>

# 1674. Re: Balun description: who is right

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-03 01:10:09 UTC
From: John Smith <kd5yikes@mindspring.com>
Message-ID: <RdWhd.2167$O11.438@newsread3.news.pas.earthlink.net>
Source record: 87269

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:cm9a6v$2j3$1@hercules.btinternet.com...
>
> From MY copy of the message I sent containing the binary attachment I get
> no
> response by clicking the program's icon or the 'paper clip'.
>
> I get a message which says "Outlook Express has made the attachment
> inaccessible". So its in my computer somewhere but I can't get at it.
> Not
> that I want it.
>
> At some time in the distant past I may have set OE to reject suspicious
> non-standard attachments.
>
> But out of curiosity, has anyone managed to download program SELFRES2 ?
>
> Or has it been rejected simply because its a binary file sent via a
> newsgroup?
>
> Thank you for your cooperation.

Hi, Reg -

I am using XP. The attachment is grayed out in OE for me and is not
available. I have heard that M$ did that intentionally to minimize the
transmission of virii. If you simply rename the file extension to something
else, like SelfRes2.run perhaps, the file might then become available and
could be executed after renaming. Or you could just zip it up and it will
transfer okay.

I think. That's what I've heard, anyway.

John

# 1675. Re: Is that a radio wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-03 01:16:14 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <mjWhd.91366$kz3.67612@fed1read02>
Source record: 87270

"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:4187f0a5$1_4@127.0.0.1...
> Ed Price wrote:
>> When one country (Iraq) invades and annexes another country (Kuwait), the
>> proper response is not simply restoring the status quo. There have to be
>> negative consequences for such aggression.
>
> Seems the statue of limitations on that Kuwaiti invasion would have run
> out after 13 years. Should England be punished some more for invading
> the United States in 1812?

Well, the Brits were still a bit pissed over that unpleasant business that ended in 1783, and then we did invade Canada. Certainly, by 1861, many Brits sympathized with the Confederacy out of spite.

What you gloss over is that Iraq in 1991 never really was contrite over invading Kuwait and getting their asses kicked out. We let them off far too easy, and their bellicosity festered for the next ten years.

>> "Crimes yet un-committed"? How stupid do you have to be to not act in
>> your own defense in light of clear threats?
>
> Nowhere in The Constitution does it grant the federal government the
> right to fight an undeclared preemptive war like the present Iraqi war.
> --
> 73, Cecil http://www.qsl.net/w5dxp

Shocking as it may be, Congress can vote to obliterate half the planet, and it would be legal (by our system). Our Congress has authorized our President to take certain measures aimed at the punishment and eradication of global terrorists; ergo, he is acting legally, within the bounds of our Constitution.

Feel free to file a legal appeal (should you prove to have standing), or appeal to our sense of fairness. Otherwise, continue to bitch and moan and raise specious arguments.

Ed

# 1676. Re: Balun description: who is right

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-03 01:17:33 UTC
From: John Smith <kd5yikes@mindspring.com>
Message-ID: <NkWhd.15628$KJ6.12720@newsread1.news.pas.earthlink.net>
Source record: 87171

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:cm9a6v$2j3$1@hercules.btinternet.com...
>
> From MY copy of the message I sent containing the binary attachment I get
> no
> response by clicking the program's icon or the 'paper clip'.
>
> I get a message which says "Outlook Express has made the attachment
> inaccessible". So its in my computer somewhere but I can't get at it.
> Not
> that I want it.
>
> At some time in the distant past I may have set OE to reject suspicious
> non-standard attachments.
>
> But out of curiosity, has anyone managed to download program SELFRES2 ?
>
> Or has it been rejected simply because its a binary file sent via a
> newsgroup?
>
> Thank you for your cooperation.

Update...

In XP, I clicked Tools/Options then selected the Security tab. Unchecked the
"Do not allow attachments to be saved or opened...". I can get the file now.
I runs just fine.

John

# 1677. Re: Is that a radio wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-03 01:23:43 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <nqWhd.91369$kz3.74024@fed1read02>
Source record: 87172

"Peter" <microwaves@blueyonder.co.uk> wrote in message
news:418a0658.34087214@news.blueyonder.co.uk...
> On Tue, 2 Nov 2004 08:45:15 -0800, "Ed Price" <edprice@cox.net> wrote:
>
>>When one country (Iraq) invades and annexes another country (Kuwait), the
>>proper response is not simply restoring the status quo. There have to be
>>negative consequences for such aggression. Sadaam (and Iraq) never seemed
>>to
>>understand that concept. The fact that we did not dismember Iraq in 1991
>>came back to haunt us.
>
> What would you have said if the UK invaded the US when you
> (USA)invaded Granada a few years ago?

Geez, maybe we would have reminded them about the Falklands? Really Peter,
that's a stupid premise.

Despite the fact that we were "invited" to intervene (just like the bleeding
hearts want "intervention" in Sudan now), we should have let Grenada rot in
place. For a very tiny shithole, I'm sure we have paid many times over in
cumulative aid and reconstruction. And of course, Grenada is now the jewel
of the Caribbean.

Ed

# 1678. Re: Powdered Ferrite

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-03 01:33:23 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <szWhd.91374$kz3.73156@fed1read02>
Source record: 87173

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:10ofoau3bvs6fbd@corp.supernews.com...
>I stand corrected. I hadn't encountered ground down ferrite as you
>describe. I should have realized it existed, though, since I've used
>ferrite loaded paints and silicone rubber, which must contain ferrite in
>this form. Thanks for the correction, and to the original poster I
>apologize -- please disregard my posting.
>
> Am I correct in assuming you'd end up with ferrites of lower permeability
> (and higher saturation flux density) than the unpowdered original, due the
> inevitable air gaps between particles?
>
> A major manufacturer of ferrite-loaded materials such as paints and
> silicone rubbers is Emerson & Cuming. They might be a possible source of
> ferrite in powdered form.
>
> Roy Lewallen, W7EL
>

I personally never saw ferrite any finer than a vaguely gritty powder, and we had no need for anything finer in the technical ceramics that we were making. But the ferrite paints are a good example that finer grinding is common.

I think you are right about the smaller particles yielding high saturation levels. And another possible source for ferrite in powdered form might be Steward (in Tennessee).

Ed
wb6wsn

## 1679. Re: Balun description: who is right

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-03 01:53:15 UTC
From: Ralph Mowery <rmowery28146@earthlink.net>
Message-ID: <fSWhd.16531$5i5.10221@newsread2.news.atl.earthlink.net>
Source record: 87174

> non-standard attachments.
>
> But out of curiosity, has anyone managed to download program SELFRES2 ?
>
> Or has it been rejected simply because its a binary file sent via a
> newsgroup?
>
> Thank you for your cooperation.

Running win 98 here. The file is grayed out but this hapens alot to me. I tell OUtlook Express ro forward the message and from there I can run and or save the program just fine. Thanks for the many fine programs.

# 1680. Now- back to serious antenna question ! (EZNEC)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-03 02:11:05 UTC
From: "NN7Kex<NOSPAM>k7zfg" <"NN7Kex<NOSPAM>k7zfg"@sbcglobal.net>
Message-ID: <Z6Xhd.17133$6q2.13800@newssvr14.news.prodigy.com>
Source record: 87175

Have a 6 meter yagi (the 7 El. M Squared), and modeled it - the pattern gain,front/back ratio, E & H Degs., were way off from those claimed- at 50 MHz. Upon reconsideration, changed freq to 49 MHz, and VIOLA, got the expected gain, ect ! I then shortened the elements by 2/3 of the boom diameter- then it seemed to meet the claimed gain, ect. at 50.5 MHz ! Changed that to 3/4 the boom dia. and then , got claimed gain, ect., where it should be. My question is : It is my understanding that this is correct for calculating (or building ) antennas , with elements THRU THE BOOM, but this antenna has the elements supported on TOP OF THE BOOM ! Am curious as to what is going on (what am I missing)? any ideas ? Just curious-- Jim NN7K

--
To reply, remove the <NOSPAM>

## 1681. Re: Is that a radio wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-03 02:34:06 UTC
From: theplanters95@aol.comnospam
Message-ID: <20041102213406.05551.00000033@mb-m25.aol.com>
Source record: 87176

Even if you do not believe in something does not mean it is not valid.

I do not believe in Islam. That does not mean it does not exist.

We need to be careful not to let our emotions cloud our reasoning.

nuff said,

Randy KA4NMA

# 1682. Re: Help designing trap dipole - ARRL Antenna book no help!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-03 05:04:16 UTC
From: Ken Bessler <kg0wx@NOSPAMyahoo.com>
Message-ID: <jEZhd.41398$lp6.36622@okepread01>
Source record: 87177

"Steve Nosko" <suteuve.nosukowicuz@moutouroula.com> wrote in message
news:cm928h$8hu$1@newshost.mot.com...

> > Summarizing the other two posts and what you alredy know. With the
> > effects
> of the surroundings the formulas won't be much good anyway.
>
> Put the traps at the ends of the standard 75M dipole [["75m portion ...is
> easy ..."]]. Make this a little long if U like. Add a little too much
> wire
> for the 160, then measure the 75M and 160M min SWR freq. Adjust the 75M
> length for your 75M freq of interest. Then, using 468/F figure out how
> far
> off you appear to be on the 160 length. Trim off about 80% of that value,
> then trim-by-SWR the rest of the way.
>
> Sound good fellas?
>
> [[personally, i think if ur <2:1 makes no diff at the other end]]]
> --
> Steve N, K,9;d, c. i My email has no u's.

That's basically what I did. I ran into an interesting issue tuning
the 75m portion - as I cut the antenna in shorter and shorter
increments as I approached my design freq, something wierd
happened - I was at 3.844 and cut 12" off each end which got
me 3.868. I cut another 6" and got 3.860? At that point I stopped
cutting. My traps were designed for 3.890 but I had no way to
measure them.

Why did trimming 6" lower my resonant freq 8 kHz? I'm guessing
but could my traps be closer to 3.86 than 3.89? I'm afraid to cut
more.

Here are the results I got:

Band 2:1 SWR range Bandwidth Center Best SWR
160 1.862-2.040 0.178 1.951.0 1.0:1
80 3.759-3.916 0.157 3.837.5 1.0:1

Ken KG0WX

# 1683. Re: Now- back to serious antenna question ! (EZNEC)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-03 05:48:54 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10ogsa6iqh4629d@corp.supernews.com>
Source record: 87178

Adding a boom of any diameter to a model as a single wire or series-connected single wires won't have any effect on results in EZNEC or similar programs, if it's placed exactly symmetrically with respect to the elements (the usual case). This is because of the simplified model of a wire and its current used by these programs. So the model has to be modified in order to account for the real-life effect of a boom (or clamps).

According to Lawson, in _Yagi Antenna Design_ (p. 7-11), when an element goes through a boom, the element should be lengthened by about 0.7 times the diameter of the boom in order to maintain optimum length. This means that the boom effectively shortens the element, and the model element should be made shorter by that amount. This is from an NBS report where measurements were made of actual Yagis. The report is available at http://www.boulder.nist.gov/timefreq/general/pdf/451.pdf.

Lawson also says that when an element is on the boom but not through it, "the element length should be increased by only six percent of the boom diameter; this small correction rapidly disappears as the element is spaced away from the boom (even by a small amount)." (p. 7-12)

Leeson details modeling requirements for a number of different clamping methods in Chapter 9 of _Physical Design of Yagi Antennas_. You haven't mentioned what sort of clamping system is used, and perhaps it's the presence of the clamp that makes the difference. I recommend taking a look at Leeson's analysis. Both Lawson's and Leeson's books are available from the ARRL.

Roy Lewallen, W7EL

NN7Kex<NOSPAM>k7zfg wrote:

> Have a 6 meter yagi (the 7 El. M Squared), and modeled it - the pattern
> gain,front/back ratio, E & H Degs., were way off from those claimed- at
> 50 MHz.
> Upon reconsideration, changed freq to 49 MHz, and VIOLA, got the
> expected gain, ect ! I then shortened the elements by 2/3 of the boom
> diameter- then it seemed to meet the claimed gain, ect. at 50.5 MHz !
> Changed that to
> 3/4 the boom dia. and then , got claimed gain, ect., where it should
> be. My question is : It is my understanding that this is correct for
> calculating (or building ) antennas , with elements THRU THE BOOM, but
> this antenna has
> the elements supported on TOP OF THE BOOM ! Am curious as to what is going
> on (what am I missing)? any ideas ? Just curious-- Jim NN7K

# 1684. Re: Powdered Ferrite

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-03 05:55:00 UTC
From: Murray <me@erewhon.com.au>
Message-ID: <4188729f$0$31917$5a62ac22@per-qv1-newsreader-01.iinet.net.au>
Source record: 87179

It seems all ferrite shapes are made from the fine powder.
I wanted some to put as a 'goop' on some coax to make
a choke balun. There are various grades - mine was 15000u.
(IIRC)

It is very fine indeed. There is some in the modern
toners for the cheap laser printers and copiers.
It replaces the 'developer' of yesteryear.
In fact I had a lot of the old toner and after some
experimenting came up with a brew of ferrite/toner
good enough to use in the copier here :-)

Try some toner with a magnet - it sticks if there
is ferrite in there.

Murray vk4aok

Ed Price wrote:
>
> "Roy Lewallen" <w7el@eznec.com> wrote in message
> news:10ofoau3bvs6fbd@corp.supernews.com...
>
>> I stand corrected. I hadn't encountered ground down ferrite as you
>> describe. I should have realized it existed, though, since I've used
>> ferrite loaded paints and silicone rubber, which must contain ferrite
>> in this form. Thanks for the correction, and to the original poster I
>> apologize -- please disregard my posting.
>>
>> Am I correct in assuming you'd end up with ferrites of lower
>> permeability (and higher saturation flux density) than the unpowdered
>> original, due the inevitable air gaps between particles?
>>
>> A major manufacturer of ferrite-loaded materials such as paints and
>> silicone rubbers is Emerson & Cuming. They might be a possible source
>> of ferrite in powdered form.
>>
>> Roy Lewallen, W7EL
>>
>
>
> I personally never saw ferrite any finer than a vaguely gritty powder,
> and we had no need for anything finer in the technical ceramics that we
> were making. But the ferrite paints are a good example that finer
> grinding is common.
>

> I think you are right about the smaller particles yielding high
> saturation levels. And another possible source for ferrite in powdered
> form might be Steward (in Tennessee).
>
> Ed
> wb6wsn
>

# 1685. Re: The "TRICK" to TV 'type' Coax Cable [Shielded] SWL Loop Antennas {RHF}

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-03 06:25:34 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0411022225.3fd23ee7@posting.google.com>
Source record: 87180
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

Telamon <telamon_spamshield@pacbell.net.is.invalid> wrote in message
>
> Hey Markey here is how this is going to work.
>
> < Plonk >

What a chicken shit Telley is.... MK

# 1686. Re: Is that a radio wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-03 06:47:27 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41887d12$1_1@127.0.0.1>
Source record: 87181

David J Windisch wrote:
> Join in now, by praying for
> the grace of faith, just in case your position of apparent unbelief turns
> out to be the wrong one for all eternity.

I've seen zero proof of immortality. If I have
an immortal soul, then so does my dog and so
do her fleas.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

# 1687. Re: The "TRICK" to TV 'type' Coax Cable [Shielded] SWL Loop Antennas {RHF}

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-03 06:53:12 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0411022253.24dd2f14@posting.google.com>
Source record: 87182
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

rhf-newsgroups@pacbell.net (RHF) wrote in message
news:<ff3145e8.0411021132.2e5e2f99@posting.google.com>...
> MK,
>
> What you may be missing, is that the 'average' End-User of the
> Coax Cable [Shielded] Shortwave Listener's (SWL) Loop Antenna
> is simply 'interested' in the "Practical Application" and RESULTS
> Gain from using [The Device].

No I'm not missing anything.
>
> Their "Focus Is:
> * How To Build/Buy It.

I have posted one version of that...

> * How To Use It.

Well, duhhhhh....

> * What To Expect From It.

I think my comments about low noise or the lack of it, follow under
this guideline.
>
> The 'target' "Reader" of the 'original' "Post" was the everyday
> Shortwave Listener { No License Required } .

And???? I guess that means you think all casual users of a device
should live in the dark, be fed clumps of shit, and be taught old
wive's tales... Right...

>
> Know Your Reader - Communicate Effectively - KISAP !

Know my reader? You must be kidding....I don't have *readers*....Or at
least, none of them have sent me a subscription yet...If you want me
to tailor my posts to a certain type of simple minded dumbass, you
will have to pay me.

> [ Keep It Simple And Practical ! ]

My PVC version can't get too much simplier...
>
> REMEMBER: What Works... WORKS ! { No Theory Required }

I'm sorry. I am not going through life as a crash test dummy....If you want to, be my guest. Remember! I didn't write the *thesis* as he called it. I just commented to the smartass that complained about it. If you don't want to read something, no one is holding a gun to your head. I find Telleys remarks about *censorship* on the shortwave NG to be really offensive. It ain't *his* NG. After reading his last two posts, I find *him* equally offensive. Only a childish asshole has to make up names for people he can't agree with. I'm glad the goofy bastard "plonked" me. He's obviously a smartass that wants to control how other people think or act on *his* shortwave NG. That was not the first time I'd seen him make smartass comments about RRAA for no good reason either...I live on both groups, although I don't normally crosspost, so I considered his comments to include me. MK

# 1688. Re: Is that a radio wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-03 06:53:24 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41887e77$1_2@127.0.0.1>
Source record: 87183

Ed Price wrote:
> What you gloss over is that Iraq in 1991 never really was contrite over
> invading Kuwait and getting their asses kicked out. We let them off far
> too easy, and their bellicosity festered for the next ten years.

Since it didn't seem to matter to Bush #41 and Clinton #42,
why should it matter to you?
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

## 1689. Re: Is that a radio wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-03 06:59:31 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41887fe6$1_5@127.0.0.1>
Source record: 87184

Theplanters95 wrote:
> Even if you do not believe in something does not mean it is not valid.

If you faithfully believe that the moon has a green cheese
core, does that make it valid?
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

# 1690. Re: The "TRICK" to TV 'type' Coax Cable [Shielded] SWL Loop Antennas {RHF}

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-03 07:10:09 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0411022310.d398c42@posting.google.com>
Source record: 87185

Richard Clark <kb7qhc@comcast.net> wrote in message
news:<gq3fo0p9igbvmlc0dgii1du898ivle2mte@4ax.com>...
> On Tue, 02 Nov 2004 10:04:24 GMT, Telamon
> <telamon_spamshield@pacbell.net.is.invalid> wrote:
> >Hey Markey here is how this is going to work.
> new-age fractal thinking

Hummmm. Maybe so. I received an antenna design today in an e-mail. It sure brings back memories of early fractal adventures I've heard described. I suspect this antenna will be a huge hit among the simple types who want an antenna that is easy to erect, but don't care how, or if, it actually works according to plan. The antenna was designed by KG5RQ, hence the name...No, it is not a slur against *the* G5RQ in England, whoever he may be... MK
http://web.wt.net/~nm5k/g5rq.jpg

# 1691. Re: Balun description: who is right

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-03 07:18:11 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0411022318.691c61cd@posting.google.com>
Source record: 87186

Johann Hï¿½chtl <johann.hoechtl@myrealbox.com> wrote in message
news:<4187ec4f$0$16896$91cee783@newsreader02.highway.telekom.at>...
> I built an "ugly" air wound balun on a PVC water pipe according to this
> description
> http://www.hamuniverse.com/balun.html
>
> I get 24 turns on a pipe having 75mm (about 3 inches) diameter measured
> outside.
>
> But recently i had the chance to look up the section in the ARRL antenna
> book and there the number of windings is considerably smaller at a
> higher winding radius.
>
> Which description is right?

Both should be right. If you vary the size of the coil in diameter,
you will need to change the number of turns. Think of a coil on a
mobile whip antenna. A big fat coil 4 inches diameter will need less
turns of wire to tune a certain freq, than a smaller 2 inch dia form.

Or does either have advantages and drawbacks?

Not sure...I would probably prefer the larger coil, if I had a choice,
but I don't know if there is really a large difference as long as both
are tuned properly. MK

# 1692. Re: Now- back to serious antenna question ! (EZNEC)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-03 07:35:54 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <8JLvhjCapIiBFA5Y@ifwtech.co.uk>
Source record: 87187

NN7Kex<NOSPAM>k7zfg wrote:
>Have a 6 meter yagi (the 7 El. M Squared), and modeled it - the pattern
>gain,front/back ratio, E & H Degs., were way off from those claimed- at 50 MHz.
>Upon reconsideration, changed freq to 49 MHz, and VIOLA, got the
>expected gain, ect ! I then shortened the elements by 2/3 of the boom
>diameter- then it seemed to meet the claimed gain, ect. at 50.5 MHz !
>Changed that to
>3/4 the boom dia. and then , got claimed gain, ect., where it should
>be. My question is : It is my understanding that this is correct for
>calculating (or building ) antennas , with elements THRU THE BOOM, but
>this antenna has
>the elements supported on TOP OF THE BOOM ! Am curious as to what is going
>on (what am I missing)? any ideas ?

Adding a metallic boom anywhere close to an element will shorten its
effective electrical length. The same applies to various kinds of
metallic mounting plates and clamps.

Before you model a yagi, you have to change all the element lengths that
you input to the program - in order to input the correct electrical
length, you must *subtract* the boom effect from each physical element
length.

In the reverse direction, if you want to build a yagi from a model, you
must either use a non-conducting boom, or else make your choice of
metallic boom diameter and mounting method, and then *add* an
appropriate correction to each element length.

This is exactly what M-Squared will have done, to develop their yagi
from a model... if you ask nicely, they might tell you the correction
they used, or even supply the NEC file.

This boom correction is not a simple fraction of the boom diameter.
There are a variety of formulas, and the ones for most forms of VHF/UHF
yagi construction are summarized at:
http://www.ifwtech.co.uk/g3sek/diy-yagi/

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

# 1693. Looking for TA33 or TA32

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-03 08:38:14 UTC
From: iw0hex@email.it
Message-ID: <30f47a04.0411030038.17628cd8@posting.google.com>
Source record: 87188

Hi
I'm an italian HAM op., Mr Pasquale IW0HEX. I live in Rome.
I'm looking for Mosley TA33-JR (3 elements) or TA32-JR (2 elements)
yagis beam tribands (10,15 and 20 meters)
Anybody can help me ?
Tnx in advance.
73s Pasquale IW0HEX

# 1694. CATV splitter question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-03 10:04:53 UTC
From: Jerry <jerry@nolikeyspam.com>
Message-ID: <4188AD44.3131@nolikeyspam.com>
Source record: 87189
Cross-posted to: rec.radio.amateur.antenna,rec.video.cable-tv,comp.home.automation

A question from a lay person. I'm looking for information on what kind of CATV splitter to buy. I have Time-Warner analog CATV and don't use any cable box. All my devices use coaxial RF cable as input. Here's my setup...

Cable comes into my house's outside junction box into a 4-way splitter with each output saying 7dB (whatever that means), then goes to four rooms.

Room 1: Bedroom without any TV. Coax not terminated.

Room 2: Office with cable modem and TV. Cable company used a 2-way splitter with each output saying 3.5dB.

Room 3: Bedroom with a TV.

Room 4: My main media room. Here's where I need the right coax splitter. I currently have a 2-way splitter connected to a VCR and a TiVo. I'd like to add a DVD recorder with a cable-ready tuner. All 3 devices would have coaxial RF cable input.

My two questions:

1. Should I get a 4-way coax splitter with each output at 7dB and terminate the unused output? This would leave an output free for future expansion in Room 4. I saw such a splitter at Radio Shack. Is there a better brand?

2. Should I terminate the cable in the unused Room 1?

Thanks for any suggestions.

Jerry

# 1695. CATV splitter question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-03 10:10:23 UTC
From: Jerry <jerry@nolikeyspam.com>
Message-ID: <4188AE8F.264A@nolikeyspam.com>
Source record: 87190

A question from a lay person. I'm looking for information on what kind of CATV splitter to buy. I have Time-Warner analog CATV and don't use any cable box. All my devices use coaxial RF cable as input. Here's my setup...

Cable comes into my house's outside junction box into a 4-way splitter with each output saying 7dB (whatever that means), then goes to four rooms.

Room 1: Bedroom without any TV. Coax not terminated.

Room 2: Office with cable modem and TV. Cable company used a 2-way splitter with each output saying 3.5dB.

Room 3: Bedroom with a TV.

Room 4: My main media room. Here's where I need the right coax splitter. I currently have a 2-way splitter connected to a VCR and a TiVo. I'd like to add a DVD recorder with a cable-ready tuner. All 3 devices would have coaxial RF cable input.

My two questions:

1. Should I get a 4-way coax splitter with each output at 7dB and terminate the unused output? This would leave an output free for future expansion in Room 4. I saw such a splitter at Radio Shack. Is there a better brand?

2. Should I terminate the cable in the unused Room 1?

Thanks for any suggestions.

Jerry

# 1696. Re: CATV splitter question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-03 10:31:20 UTC
From: Art <plotsligt@comcast.net>
Message-ID: <L7SdnW1bG9rhLhXcRVn-sg@comcast.com>
Source record: 87191

Generally the splitters are installed by "professionals" without even considering termination of the unused ports. I normally put the splitters closest to the main feed line coming into the residence. use high quality coax (RG-6) and high quality crimped connectors. Termination at the unused ports with a 75 ohm terminator available at most supply outlets and occasionally Rat Shack. The I take a nice portable tele to each final location, check the quality of the supplied signal at that point, if necessary, installation of a high quality distribution amplifier rather than the passive splitter in required. May want to contact a person who does this ona commercial basis and askk theire source of materials, etc.
"Jerry" <jerry@nolikeyspam.com> wrote in message
news:4188AE8F.264A@nolikeyspam.com...
>A question from a lay person. I'm looking for information on what kind
> of CATV splitter to buy. I have Time-Warner analog CATV and don't use
> any cable box. All my devices use coaxial RF cable as input. Here's my
> setup...
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> Cable comes into my house's outside junction box into a 4-way splitter
> with each output saying 7dB (whatever that means), then goes to four
> rooms.
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> Room 1: Bedroom without any TV. Coax not terminated.
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> Room 2: Office with cable modem and TV. Cable company used a 2-way
> splitter with each output saying 3.5dB.
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> Room 3: Bedroom with a TV.
>
> Room 4: My main media room. Here's where I need the right coax splitter.
> I currently have a 2-way splitter connected to a VCR and a TiVo. I'd
> like to add a DVD recorder with a cable-ready tuner. All 3 devices would
> have coaxial RF cable input.
>
> My two questions:
>
> 1. Should I get a 4-way coax splitter with each output at 7dB and
> terminate the unused output? This would leave an output free for future
> expansion in Room 4. I saw such a splitter at Radio Shack. Is there a
> better brand?
>
> 2. Should I terminate the cable in the unused Room 1?
>
>
> Thanks for any suggestions.

>
> Jerry

# 1697. Ground rod or water pipe?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-03 11:16:53 UTC
From: Ruben Undheim <saltmakrell@hotmail.com>
Message-ID: <4188cc35$1@news.wineasy.se>
Source record: 87194

Hello

I have my shack on the second floor, about 8 meters above ground. I am going to use a dipole antenna for 20M
Should I use the water pipe system as ground, or should I use a thick wire on the housewall down to a ground rod?
I fear that the wire down to the ground rod may emit unwanted RF (have read that somewhere).

Regards
Ruben

# 1698. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-03 11:53:31 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cmagrr$h0d$1@sparta.btinternet.com>
Source record: 87193

Cec sez,

> My solution is to get Reg to write a new program. :-)
>
=====================================

My patience is wearing thin.

Nevertheless, once more into the breach.

There's no need to write a new program. There's not even any need for an old one.

Knowledge of the current distribution along a loading coil has no practical use except to assist with drawing pictures of it in books and magazines.

FOR PRESENT PURPOSES THE LENGTH AND IMPEDANCE OF THE ANTENNA BELOW THE COIL IS NOT RELEVANT. IT CAN BE CONSIDERED TO BE PART OF THE GENERATOR.

LET THE ANGULAR LENGTH OF THE COIL = THETA DEGREES. OTHERWISE KNOWN AS THE PHASE SHIFT. THIS IS A FIXED, IMMUTABLE QUANTITY SET BY THE PROPAGATION VELOCITY = 1 / SQRT( L * C ).

THE MAGNITUDE OF THE CURRENT DISTRIBUTION ALONG THE COIL IS ALWAYS THE SAME COSINE CURVE BUT WHICH IS TRUNCATED (SLICED OFF) AT VARYING ANGULAR DEGREES AT EITHER OR BOTH ENDS.

THE ANGLE AT WHICH THE TOP END IS TRUNCATED DEPENDS ON THE INPUT IMPEDANCE OF THE ANTENNA ABOVE IT. IT IS ALSO RELATED TO Zo OF THE COIL WHICH IS THE USUAL SQRT( L / C ).

THE ANGLE AT WHICH THE BOTTOM END IS TRUNCATED IS ALWAYS THE TOP ANGLE MINUS THETA. IT CANNOT BE ANYTHING ELSE.

THUS, WHEN THE TOP END IS OPEN CIRCUIT AND THETA = 90 DEGREES WE HAVE A COMPLETE 1/4-CYCLE OF A COSINE CURVE - A 1/4-WAVE RESONANT HELICAL ANTENNA.

The foregoing applies to both short, fat coils and long, thin coils, close-wound or stretched-out.

Coil resistance is the uniformly-distributed radiation resistance plus conductor resistance.

For useful calculations such as Q, bandwidth, efficiency, etc., you can forget all about bewildering reflections, standing waves, forward and reflected power and use the well-known classical transmission line formulae, the everyday tools of all good engineers.
The final wanted characteristic, the radiation pattern, can be found with

number-crunching EZNEC-type computer programs which work in an entirely
different manner.
---
Reg, G4FGQ

# 1699. Re: So what happened to Mr Fractal?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-03 11:58:27 UTC
From: Mark <bigfathhairybiker@MAILhot.com>
Message-ID: <4188c6af$0$16437$ed9e5944@reading.news.pipex.net>
Source record: 87192

"W1RFI" <w1rfi@aol.com> wrote in message
news:20041102165700.16106.00000002@mb-m27.aol.com...
> He is on QRZ.com, advocating that amateurs should accept BPL because
mobile
> operation is only nostalgic.
>
> Ed

Excellent!

I thought he was just a plonker, now I am right.

I took up his offer to apply for the "fractal" information by emailing
him...

He eventually just didn't reply to my emails...

# 1700. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-03 12:50:14 UTC
From: k3bu@aol.comNoUsama
Message-ID: <20041103075014.08102.00000001@mb-m05.aol.com>
Source record: 87195

Reg Says:
>
>Knowledge of the current distribution along a loading coil has no practical
>use except to assist with drawing pictures of it in books and magazines.

WROOOONG!

Have you ever tried antenna shootouts? Cecil can enlighten you about the
difference in efficiency and signal levels radiated by various configurations
(bottom, center, top loading).
The efficiency is proportional to the AREA under the current curve on the
loaded radiator. That is dependent on the position of the loading element
within the radiator. That also depends on the current distribution (drop :-)
across the coil. Use that in the loaded parasitic element beams and the effect
is magnified.
So obvious, but hard to swallow for Rauchians?

Viva Bush!!! Sayonara sKerry botoxed flipflopping lying girlie man.

Yuri, K3BU.us

# 1701. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-03 13:07:38 UTC
From: "H. Adam Stevens, NQ5H" <NQ5H@ARRL.net>
Message-ID: <10ohm2opaiggrd0@corp.supernews.com>
Source record: 87196

Reg
Your patience is that of a saint.
H.
"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:cmagrr$h0d$1@sparta.btinternet.com...
> Cec sez,
>
> > My solution is to get Reg to write a new program. :-)
> >
> ======================================
>
> My patience is wearing thin.
>
> Nevertheless, once more into the breach.
>
> There's no need to write a new program. There's not even any need for an
old
> one.
>
> Knowledge of the current distribution along a loading coil has no
practical
> use except to assist with drawing pictures of it in books and magazines.
>
> FOR PRESENT PURPOSES THE LENGTH AND IMPEDANCE OF THE ANTENNA BELOW THE
COIL
> IS NOT RELEVANT. IT CAN BE CONSIDERED TO BE PART OF THE GENERATOR.
>
> LET THE ANGULAR LENGTH OF THE COIL = THETA DEGREES. OTHERWISE KNOWN AS
THE
> PHASE SHIFT. THIS IS A FIXED, IMMUTABLE QUANTITY SET BY THE PROPAGATION
> VELOCITY = 1 / SQRT( L * C ).
>
> THE MAGNITUDE OF THE CURRENT DISTRIBUTION ALONG THE COIL IS ALWAYS THE
SAME
> COSINE CURVE BUT WHICH IS TRUNCATED (SLICED OFF) AT VARYING ANGULAR
DEGREES
> AT EITHER OR BOTH ENDS.
>
> THE ANGLE AT WHICH THE TOP END IS TRUNCATED DEPENDS ON THE INPUT IMPEDANCE
> OF THE ANTENNA ABOVE IT. IT IS ALSO RELATED TO Zo OF THE COIL WHICH IS
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MINUS
> THETA. IT CANNOT BE ANYTHING ELSE.
>
> THUS, WHEN THE TOP END IS OPEN CIRCUIT AND THETA = 90 DEGREES WE HAVE A
> COMPLETE 1/4-CYCLE OF A COSINE CURVE - A 1/4-WAVE RESONANT HELICAL
> ANTENNA.
>
> The foregoing applies to both short, fat coils and long, thin coils,
> close-wound or stretched-out.
>
> Coil resistance is the uniformly-distributed radiation resistance plus
> conductor resistance.
>
> For useful calculations such as Q, bandwidth, efficiency, etc., you can
> forget all about bewildering reflections, standing waves, forward and
> reflected power and use the well-known classical transmission line
formulae,
> the everyday tools of all good engineers.
> The final wanted characteristic, the radiation pattern, can be found with
> number-crunching EZNEC-type computer programs which work in an entirely
> different manner.
> ----
> Reg, G4FGQ
>
>
>

# 1702. Re: Balun description: who is right

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-03 13:14:19 UTC
From: Jay in the Mojave <jay123a@qnet.com>
Message-ID: <10ohmdcjtt9f3e@corp.supernews.com>
Source record: 87197

Hello Johann:

Loose the coax Balun, and get a toroid balun.

All the coax Baluns I have used are now used to tie up bushs for pick up
on Thrusdays morning trash pick up.

http://www.amidoncorp.com/aai_cost_baluns.htm

After replacing the coax balun, with the Amodon 1 to 1 HBH50 current
type balun, on my yagi beams it was like night and day. Ten-4.

Jay in the Mojave

Johann Hï¿½chtl wrote:

> I built an "ugly" air wound balun on a PVC water pipe according to this
> description
> http://www.hamuniverse.com/balun.html
>
> I get 24 turns on a pipe having 75mm (about 3 inches) diameter measured
> outside.
>
> But recently i had the chance to look up the section in the ARRL antenna
> book and there the number of windings is considerably smaller at a
> higher winding radius.
>
> Which description is right? Or does either have advantages and drawbacks?

# 1703. Re: The "TRICK" to TV 'type' Coax Cable [Shielded] SWL Loop Antennas {RHF}

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-03 13:38:57 UTC
From: rhf-newsgroups@pacbell.net
Message-ID: <ff3145e8.0411030538.1f02bffa@posting.google.com>
Source record: 87198
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

MK

It's So Nice That We Are Communication ;-}

there is a 'trick' to that too ~ RHF
.
.
= = = nm5k@wt.net (Mark Keith) wrote in message
= = = news:<25eb70d7.0411022253.24dd2f14@posting.google.com>...
> rhf-newsgroups@pacbell.net (RHF) wrote in message
news:<ff3145e8.0411021132.2e5e2f99@posting.google.com>...
> > MK,
> >
> > What you may be missing, is that the 'average' End-User of the
> > Coax Cable [Shielded] Shortwave Listener's (SWL) Loop Antenna
> > is simply 'interested' in the "Practical Application" and RESULTS
> > Gain from using [The Device].
>
> No I'm not missing anything.
> >
> > Their "Focus Is:
> > * How To Build/Buy It.
>
> I have posted one version of that...
>
> > * How To Use It.
>
> Well, duhhhhh....
>
> > * What To Expect From It.
>
> I think my comments about low noise or the lack of it, follow under
> this guideline.
> >
> > The 'target' "Reader" of the 'original' "Post" was the everyday
> > Shortwave Listener { No License Required } .
>
> And???? I guess that means you think all casual users of a device
> should live in the dark, be fed clumps of shit, and be taught old
> wive's tales... Right...
>
>
> >

> > Know Your Reader - Communicate Effectively - KISAP !
>
> Know my reader? You must be kidding....I don't have *readers*....Or at
> least, none of them have sent me a subscription yet...If you want me
> to tailor my posts to a certain type of simple minded dumbass, you
> will have to pay me.
>
> > [ Keep It Simple And Practical ! ]
>
> My PVC version can't get too much simplier...
> >
> > REMEMBER: What Works... WORKS ! { No Theory Required }
>
> I'm sorry. I am not going through life as a crash test dummy....If you
> want to, be my guest. Remember! I didn't write the *thesis* as he
> called it. I just commented to the smartass that complained about it.
> If you don't want to read something, no one is holding a gun to your
> head. I find Telleys remarks about *censorship* on the shortwave NG to
> be really offensive. It ain't *his* NG. After reading his last two
> posts, I find *him* equally offensive. Only a childish asshole has to
> make up names for people he can't agree with. I'm glad the goofy
> bastard "plonked" me. He's obviously a smartass that wants to control
> how other people think or act on *his* shortwave NG. That was not the
> first time I'd seen him make smartass comments about RRAA for no good
> reason either...I live on both groups, although I don't normally
> crosspost, so I considered his comments to include me. MK

# 1704. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-03 13:59:58 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <yv5id.4101$zx1.1822@newssvr13.news.prodigy.com>
Source record: 87199

Yuri Blanarovich wrote:
> Reg Says:
>
>>Knowledge of the current distribution along a loading coil has no practical
>>use except to assist with drawing pictures of it in books and magazines.
>
>
> WROOOONG!
>
> Have you ever tried antenna shootouts? Cecil can enlighten you about the
> difference in efficiency and signal levels radiated by various configurations
> (bottom, center, top loading).
> The efficiency is proportional to the AREA under the current curve on the
> loaded radiator. That is dependent on the position of the loading element
> within the radiator. That also depends on the current distribution (drop :-)
> across the coil. Use that in the loaded parasitic element beams and the effect
> is magnified.
> So obvious, but hard to swallow for Rauchians?
>
> Viva Bush!!! Sayonara sKerry botoxed flipflopping lying girlie man.
>
> Yuri, K3BU.us

If you're really interested in the "AREA under the current curve,"
you'll have to figure out how to make an efficient, continuously loaded,
short antenna. You'll find, though, that the difference between a
continuously loaded antenna and an antenna with the loading coil,
say, halfway up from the feedpoint won't amount to a hill of beans.
There's still no such thing as a "current drop."
73,
Tom Donaly, KA6RUH

# 1705. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-03 14:11:05 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <ZF5id.38069$QJ3.4616@newssvr21.news.prodigy.com>
Source record: 87200

Reg Edwards wrote:

> Cec sez,
>
>
>>My solution is to get Reg to write a new program. :-)
>>
>
> ====================================
>
> My patience is wearing thin.
>
> Nevertheless, once more into the breach.
>
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> one.
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>
> FOR PRESENT PURPOSES THE LENGTH AND IMPEDANCE OF THE ANTENNA BELOW THE COIL
> IS NOT RELEVANT. IT CAN BE CONSIDERED TO BE PART OF THE GENERATOR.
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> LET THE ANGULAR LENGTH OF THE COIL = THETA DEGREES. OTHERWISE KNOWN AS THE
> PHASE SHIFT. THIS IS A FIXED, IMMUTABLE QUANTITY SET BY THE PROPAGATION
> VELOCITY = 1 / SQRT( L * C ).
>
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> COMPLETE 1/4-CYCLE OF A COSINE CURVE - A 1/4-WAVE RESONANT HELICAL
> ANTENNA.
>
> The foregoing applies to both short, fat coils and long, thin coils,
> close-wound or stretched-out.

> 
> Coil resistance is the uniformly-distributed radiation resistance plus
> conductor resistance.
> 
> For useful calculations such as Q, bandwidth, efficiency, etc., you can
> forget all about bewildering reflections, standing waves, forward and
> reflected power and use the well-known classical transmission line formulae,
> the everyday tools of all good engineers.
> The final wanted characteristic, the radiation pattern, can be found with
> number-crunching EZNEC-type computer programs which work in an entirely
> different manner.
> ----
> Reg, G4FGQ
> 
> 
> 

For a guy who is always excoriating people for believing old wives
tales, you've just told a whopper, Reg. It's true, you might get an
answer using the above theory that is "good enough for who it's for,"
but as an expression of what's actually happening in the antenna, it's
hopelessly simplistic.
73,
KA6RUH

# 1706. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-03 14:12:44 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <wH5id.38070$QJ3.34913@newssvr21.news.prodigy.com>
Source record: 87201

H. Adam Stevens, NQ5H wrote:

> Reg
> Your patience is that of a saint.
> H.
> "Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
> news:cmagrr$h0d$1@sparta.btinternet.com...
>
>>Cec sez,
>>
>>
>>>My solution is to get Reg to write a new program. :-)
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>>=======================================
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>>My patience is wearing thin.
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>>Nevertheless, once more into the breach.
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>>There's no need to write a new program. There's not even any need for an
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>>one.
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>
>>COSINE CURVE BUT WHICH IS TRUNCATED (SLICED OFF) AT VARYING ANGULAR
>
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>
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>>THE ANGLE AT WHICH THE BOTTOM END IS TRUNCATED IS ALWAYS THE TOP ANGLE
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>>The foregoing applies to both short, fat coils and long, thin coils,
>>close-wound or stretched-out.
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>>Coil resistance is the uniformly-distributed radiation resistance plus
>>conductor resistance.
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>>For useful calculations such as Q, bandwidth, efficiency, etc., you can
>>forget all about bewildering reflections, standing waves, forward and
>>reflected power and use the well-known classical transmission line
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> formulae,
>
>>the everyday tools of all good engineers.
>>The final wanted characteristic, the radiation pattern, can be found with
>>number-crunching EZNEC-type computer programs which work in an entirely
>>different manner.
>>----
>>Reg, G4FGQ
>>
>>
>>
>

>
>

If patience were money, Reg would be wearing a barrel.
73,
Tom Donaly, KA6RUH

# 1707. 80/160 trap dipole question - last one I hope

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-03 14:19:48 UTC
From: Ken Bessler <kg0wx@NOSPAMyahoo.com>
Message-ID: <tN5id.41424$lp6.2321@okepread01>
Source record: 87202

One leg of my trap dipole ran nice and high between two trees, The other ran to a telephone pole but in the process of installation, it caught halfway on a roof tile and ended up with the trap about 13 feet high. The other trap is about 30' up.

I fixed the situation and now both traps are even. It had interesting results:

160m resonant freq went up 50 kHz.
75m resonant freq went up 75 kHz
2:1 swr bandwidth on 160 got smaller by 20%
2:1 swr bandwidth on 75 got larger by 10%

Am I correct in assuming that the smaller b/w on 160 indicates better efficiancy via higher Q? It already works pretty good, I made a dozen contacts out to about 800 miles on 1975 last night with 50w and that was with the east trap @ 13'. I don't know really how good that is but everyone I talked to was impressed at how good I was getting out with "a trap dipole and only 50w".

Ken KG0WX

# 1708. Re: Ground rod or water pipe?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-03 14:21:12 UTC
From: Jack Painter <223bthp@cox.net>
Message-ID: <vP5id.44813$_g6.36113@okepread03>
Source record: 87203

"Ruben Undheim" <saltmakrell@hotmail.com> wrote

> I have my shack on the second floor, about 8 meters above ground. I am
going
> to use a dipole antenna for 20M
> Should I use the water pipe system as ground, or should I use a thick wire
> on the housewall down to a ground rod?
> I fear that the wire down to the ground rod may emit unwanted RF (have
read
> that somewhere).

Hi Ruben, sounds like three stories above ground, two stories would be 4 meters even if a 1 meter+ raised foundation was included. At any rate, a dipole is a complete antenna that does not use an RF ground or counterpoise. Transceiver mismatches will place high SWR on the feedline, not an RF ground should you install one anyway. If you later add some kind of longwire or other voltage-fed antenna then an RF ground would be important. You could use 12" wide 20 ga copper flashing (available at roofing companies) to make a workable ground from your elevated shack location. Anything less would have incredibly high impedance due to the distance to earth ground. Your dipole antenna feedline should enter the building at ground level, and the coax shield should be grounded there before coming "up" into the shack. There will remain a high potential between your shack equipment and the earth ground no matter what kind of ground you attempt at that height. The 12" wide copper strap connection would just be the lowest potential you could achieve, water piping or any solid wire size would not even come close.

Best regards,

Jack Painter
Virginia Beach VA

# 1709. Re: Is that a radio wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-03 14:23:08 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <4R5id.91449$kz3.19571@fed1read02>
Source record: 87204

"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:41887e77$1_2@127.0.0.1...
> Ed Price wrote:
>> What you gloss over is that Iraq in 1991 never really was contrite over
>> invading Kuwait and getting their asses kicked out. We let them off far
>> too easy, and their bellicosity festered for the next ten years.
>
> Since it didn't seem to matter to Bush #41 and Clinton #42,
> why should it matter to you?
> --
> 73, Cecil http://www.qsl.net/w5dxp

Cecil:

Your editing is commendable, but your memory is short. This thread started with the justification of force as valid due to Sadaam threatening our national interests (Kuwait & Saudi oil). The fact that he was a looney, playing six sides against the middle and balancing violent fanatics of multiple flavors, didn't help, but that alone wasn't the primary reason. (And I'm sure that in the realpolitick of Iraq, Sadaam alternately used, funded and sought to exterminate Al Quaida.)

We should, by all means, use diplomacy and incentives, but they seem to have not worked very well when Sadaam announced that Kuwait was the newest province of Iraq.

Ed
wb6wsn

# 1710. Re: CATV splitter question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-03 14:31:15 UTC
From: Jack Painter <223bthp@cox.net>
Message-ID: <WY5id.44894$_g6.27272@okepread03>
Source record: 87205

"Jerry" <jerry@nolikeyspam.com> wrote
> Room 4: My main media room. Here's where I need the right coax splitter.
> I currently have a 2-way splitter connected to a VCR and a TiVo. I'd
> like to add a DVD recorder with a cable-ready tuner. All 3 devices would
> have coaxial RF cable input.

One device input for cable (the DVD) can feed all other devices, including surround sound theatre system when you later add that. If for some reason you want to record separate events simultaneously, then you could use a passive splitter between the DVD cable output and the VCR. If not, an AB switch between VCR and TiVo would work fine.

Jack

# 1711. Re: CATV splitter question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-03 14:38:05 UTC
From: Rich Gosselin <"rich gossel org">
Message-ID: <CIOdnZFSXajRcBXcRVn-qA@comcast.com>
Source record: 87206
Cross-posted to: rec.radio.amateur.antenna,rec.video.cable-tv,comp.home.automation

> My two questions:
>
> 1. Should I get a 4-way coax splitter with each output at 7dB and
> terminate the unused output? This would leave an output free for future
> expansion in Room 4. I saw such a splitter at Radio Shack. Is there a
> better brand?
**********
Yes & no...if the splitter is a 1 gig splitter, it'll work. Don't use the 900mhz splitters...they'll work...so so...but you'll get better signal through the 1 gig splitter, and they are not expensive...I get them at Home Despots...about $5...can't remember if they are Ideal or RCA branded...you will probably not need any signal amps...unless your really working with a bad cable company. They take special care to boost their signal throughout their network, and really try hard (in my area with Comcast) to pump good signal to their users.
**********
> 2. Should I terminate the cable in the unused Room 1?
**********
Always terminate unused coax ends tied to the distribution network.
**********

Rich

# 1712. Re: anyone have any info on "BOBCAT CURTAIN" antenna???

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-03 14:52:37 UTC
From: carl <carl@nospam.com>
Message-ID: <4188F0B4.368BBCCB@nospam.com>
Source record: 87207

http://www.cebik.com/bc40ab.html

Wealth of info on anytypes of antenna.

carl

# 1713. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-03 15:01:47 UTC
From: k3bu@aol.comNoUsama
Message-ID: <20041103100147.08102.00000011@mb-m05.aol.com>
Source record: 87208

>
> If you're really interested in the "AREA under the current curve,"
>you'll have to figure out how to make an efficient, continuously loaded,
>short antenna. You'll find, though, that the difference between a
>continuously loaded antenna and an antenna with the loading coil,
>say, halfway up from the feedpoint won't amount to a hill of beans.
> There's still no such thing as a "current drop."
>73,
>Tom Donaly, KA6RUH

You are flying in a dreamland. Check the results of shootouts comparing
Haasticks and other continuously loaded antennas vs. Bugcatchers or top loaded.
You guys get your noses out of the books and check the reality.

73 Yuri

# 1714. Re: Is that a radio wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-03 15:03:56 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <wr6id.4107$zx1.3649@newssvr13.news.prodigy.com>
Source record: 87209

Ed Price wrote:
>
> "Cecil Moore" <w5dxp@hotmail.com> wrote in message
> news:41887e77$1_2@127.0.0.1...
>
>> Ed Price wrote:
>>
>>> What you gloss over is that Iraq in 1991 never really was contrite
>>> over invading Kuwait and getting their asses kicked out. We let them
>>> off far too easy, and their bellicosity festered for the next ten years.
>>
>>
>> Since it didn't seem to matter to Bush #41 and Clinton #42,
>> why should it matter to you?
>> --
>> 73, Cecil http://www.qsl.net/w5dxp
>
>
>
> Cecil:
>
> Your editing is commendable, but your memory is short. This thread
> started with the justification of force as valid due to Sadaam
> threatening our national interests (Kuwait & Saudi oil). The fact that
> he was a looney, playing six sides against the middle and balancing
> violent fanatics of multiple flavors, didn't help, but that alone wasn't
> the primary reason. (And I'm sure that in the realpolitick of Iraq,
> Sadaam alternately used, funded and sought to exterminate Al Quaida.)
>
> We should, by all means, use diplomacy and incentives, but they seem to
> have not worked very well when Sadaam announced that Kuwait was the
> newest province of Iraq.
>
> Ed
> wb6wsn
>

Everything you get you have to pay for. "Getting" Hussein wasn't
really worth the money, lives, and loss of international good will
we expended getting him. Moreover, now that we've got him, what are
we going to do next? Where are we going to get the troops to
pacify Iraq and turn it into a compliant, friendly, little
police state like Saudi Arabia? When are we going to see the price
of gasoline and heating oil drop? Where's the reward?

73,
Tom Donaly, KA6RUH

# 1715. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-03 15:25:20 UTC
From: richardharrison@webtv.net
Message-ID: <15840-4188F860-13@storefull-3257.bay.webtv.net>
Source record: 87210

Reg, G4FGQ wrote:
"For present purposes the length and impedance of the antenna below the coil is not relevant. It can be part of the generator."

I infer that Reg is saying that at a particular frequency, a loading coil has a unique voltage across and a unique current through it.

Probably sometimes so, but the simple argument was that the current at the coil ends can be different. This is caused by superposition of forward and reflected waves. The same power may have any number of voltage to current ratios (impedances). The purpose of a loading coil is to transform an antenna impedance to an impedance more compatible with a radio. There is a difference in impedance between the ends of a loading coil so that the current at its ends are different.

The length and impedance of the antenna below the coil participate in the imbalance seen at opposite ends of the loading coil. The height of the loading coil on an antenna is thus significant.

The length and impedance of the antenna below the coil participates in radiation. The function of a transmission line is to convey energy. The function of an antenna is to radiate energy.

Radiation is a function of unbalanced current and the length through which it travels (page 864, Terman`s 1955 edition). The current per unit length below a loading coil is higher than above the coil. More radiation per unit length results from more current. This affects impedance at the coil ends.

"For present purposes" we may declare anything so long as we don`t define our purposes, but Fig 9-22 on page 9-15 of ON4UN`s "Low-Band DXing" is significant and no one has said his pictures are wrong and given reasons.

Best regards, Richard Harrison, KB5WZI

# 1716. Re: Ground rod or water pipe?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-03 15:59:09 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cmav8d$45m$1@titan.btinternet.com>
Source record: 87211

```
>
> I have my shack on the second floor, about 8 meters above ground. I am
going
> to use a dipole antenna for 20M
> Should I use the water pipe system as ground, or should I use a thick wire
> on the housewall down to a ground rod?
> I fear that the wire down to the ground rod may emit unwanted RF (have
read
> that somewhere).
>
====================================
```

One of the advantages of a dipole antenna is that it doesn't need a ground connection. There's nowhere to connect one.

The transmtter does need a ground and it usually obtains one from the domestic 110-volt power socket.

But a much better ground can be obtained from the nearest domestic metal water pipe or central heating system which eventually finds its way to the incoming water main.

Two separate well-spaced ground connections, running in different directions from the transmiter to different parts of the plumbing system are better still. There is usually a threaded bolt with a wing nut at the rear of the transmitter for connecting to ground wires.

A wire down the wall to a single ground rod makes a very poor ground. It is worse than the connection to the 110-volt power socket. The rod is no better than a shallow buried wire of about the same length. It is only of use when there's nothing else available.

Grounding wires need be no larger than 16 or 12 gauge. Think in terms of mechanical durability and reliability.

All wires in the vicinity of a transmitting antenna pick up and re-radiate energy or transfer it somewhere else. It is of low level, usually imperceptible and nothing to worry about.

Only when connected directly to an antenna to form part of the radiating system will relatively large amounts of power find its way along wires to where its not wanted. Something is usually seriously wrong if you should get small harmless burns on the lips when using the microphone with a Tx power of 100 watts or less.

There are a score of different ways in which things can happen. All are curable. Most likely you will never be afflicted. No need to do anything

until something actually occurs.

It's very rare for earth wires to re-radiate anything that is harmful or interferes with anything or is even detectable. Since 99 percent of radiation comes from the antenna that's where most of the interference in or around your house originates - if you should get any.
---
Reg

# 1717. Re: 80/160 trap dipole question - last one I hope

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-03 17:05:56 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <cmb3ao$i58$1@newshost.mot.com>
Source record: 87217

"Ken Bessler" <kg0wx@NOSPAMyahoo.com> wrote in message
news:tN5id.41424$lp6.2321@okepread01...
> [...snip...]\
>... I don't know really how
> good that is but everyone I talked to was impressed
> at how good I was getting out with "a trap dipole and
> only 50w".
>
> Ken KG0WX

I can't answer the BW / efficiency question, but the above answers it's own
query.....
73,
--
Steve N, K,9;d, c. i My email has no u's.

## 1718. Hopefully not a dumb question per CATV

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-03 17:20:23 UTC
From: Ace <ace@telnet.com>
Message-ID: <rr8id.292960$wV.137673@attbi_s54>
Source record: 87212

I was thinking of experimenting with 2 meters and with 20, 40, & 80 meters by seeing what would happen if I used cable TV as an antenna. Do any of you think I could xmit or receive?

# 1719. Re: CATV splitter question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-03 17:32:24 UTC
From: BruceR <brNOSPAM@hawaii.com>
Message-ID: <IC8id.59864$KI3.30953@twister.socal.rr.com>
Source record: 87213
Cross-posted to: rec.radio.amateur.antenna,rec.video.cable-tv,comp.home.automation

That 7db label means that the splitter is reducing the signal by 7db. As you add more splitters down the line you further reduce the signal. Try the 4 port splitter and see how your picture looks. At that point you'll have a 14db signal loss but if the picture is good that's all the counts. If it's grainy you may need to use a 4 port drop amp. You can get good ones (Electrohome, Scientific Atlanta, etc) on ebay for about $20.

From:Jerry
jerry@nolikeyspam.com

> A question from a lay person. I'm looking for information on what kind
> of CATV splitter to buy. I have Time-Warner analog CATV and don't use
> any cable box. All my devices use coaxial RF cable as input. Here's my
> setup...
>
> Cable comes into my house's outside junction box into a 4-way splitter
> with each output saying 7dB (whatever that means), then goes to four
> rooms.
>
> Room 1: Bedroom without any TV. Coax not terminated.
>
> Room 2: Office with cable modem and TV. Cable company used a 2-way
> splitter with each output saying 3.5dB.
>
> Room 3: Bedroom with a TV.
>
> Room 4: My main media room. Here's where I need the right coax
> splitter. I currently have a 2-way splitter connected to a VCR and a
> TiVo. I'd like to add a DVD recorder with a cable-ready tuner. All 3
> devices would have coaxial RF cable input.
>
> My two questions:
>
> 1. Should I get a 4-way coax splitter with each output at 7dB and
> terminate the unused output? This would leave an output free for
> future expansion in Room 4. I saw such a splitter at Radio Shack. Is
> there a better brand?
>
> 2. Should I terminate the cable in the unused Room 1?
>
>
> Thanks for any suggestions.
>

> Jerry

# 1720. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-03 17:35:36 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <IF8id.4184$zx1.900@newssvr13.news.prodigy.com>
Source record: 87214

Yuri Blanarovich wrote:
>> If you're really interested in the "AREA under the current curve,"
>>you'll have to figure out how to make an efficient, continuously loaded,
>>short antenna. You'll find, though, that the difference between a
>>continuously loaded antenna and an antenna with the loading coil,
>>say, halfway up from the feedpoint won't amount to a hill of beans.
>> There's still no such thing as a "current drop."
>>73,
>>Tom Donaly, KA6RUH
>
>
>
> You are flying in a dreamland. Check the results of shootouts comparing
> Haasticks and other continuously loaded antennas vs. Bugcatchers or top loaded.
> You guys get your noses out of the books and check the reality.
>
> 73 Yuri

I wrote that you'd have to make an _efficient_, continuously loaded,
short antenna if you want to get the most area under the curve. That's
easier said than done. Certainly, you can't do it.
So a shootout is your idea of a reliable
antenna test. I guess it's no worse than using fish tank
thermometers to measure efficiency.
73,
Tom Donaly, KA6RUH

## 1721. 32 ft end tuned vertical or??

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-03 17:39:49 UTC
From: denton <denton@oregontrail.net>
Message-ID: <10oi5v1a3knkh0a@corp.supernews.com>
Source record: 87215

Hi all...
I have a 32 ft aluminum mast that I want to feed at the bottom with an extensive radial system laying on or just below the ground.
I plan on homebrewing a matching network at the base, with tuning stubbs on the vertical radiator and plan to use the antenna on 30 thru 10 meters.
Before I get too into the project, I am wondering if I would have a better antenna if I simply purchase a Gap Titan, butternut or something of their irk. Thanks in advance.

# 1722. Re: Balun description: who is right

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-03 17:46:44 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <o46io0lkhq2lqfcavd5brec20c12rfl7tc@4ax.com>
Source record: 87216

On Wed, 03 Nov 2004 01:17:33 GMT, "John Smith"
<kd5yikes@mindspring.com> wrote:
>In XP, I clicked Tools/Options then selected the Security tab. Unchecked the
>"Do not allow attachments to be saved or opened..."

Hi John,

You are now standing at the edge of the abyss.

73's
Richard Clark, KB7QHC

# 1723. Re: Telescopic to coax adaptor?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-03 17:49:05 UTC
From: Dave Piggin <d.piggin@zetnet.co.uk>
Message-ID: <20041103174905878337@zetnet.co.uk>
Source record: 87083

The message <20041102190614.06239.00000015@mb-m29.aol.com>
from jgboyles@aol.com (JGBOYLES) contains these words:

> >Is there a recognised way to connect a radio that just has a
> >telescopic aerial
> to a coax cable so that an external aerial can be used?

> Sure, just connect a short jumper from the center conductor of the
> coax to the
> telescopic antenna.
> What is a 'Heath Robinson' idea? Is that something desirable?

> Gary
>>> Typicaly a British bit of vocabalry, meaning "Any other answer or
>>> thing I could do to make it work" in it's simplist term. Dave d;-)

--
Amateur Radio Call Sign M1BTI, Located in IO-83-TK, Manchester. England.
Chairman of Trafford Radio Group, G0TRG/M1BBP Located at UMIST, Manchester.
Share what you know, learn what you dont know

# 1724. Re: Hopefully not a dumb question per CATV

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-03 18:00:27 UTC
From: Phil <Phil@spamgenoeg.be>
Message-ID: <%09id.10135$QX3.528494@phobos.telenet-ops.be>
Source record: 87218

"Ace" <ace@telnet.com> wrote in message
news:rr8id.292960$wV.137673@attbi_s54...
> I was thinking of experimenting with 2 meters and with 20, 40, & 80 meters
> by seeing what would happen if I used cable TV as an antenna. Do any of
you
> think I could xmit or receive?
>
>

Use the phone line to begin with.

Success!

Phil

# 1725. Re: Ground rod or water pipe?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-03 18:13:49 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <pm6io0ttmshb5bu8dqaa4t59oleiikul6a@4ax.com>
Source record: 87219

On 3 Nov 2004 13:16:53 +0200, "Ruben Undheim"
<saltmakrell@hotmail.com> wrote:
>Should I use the water pipe system as ground, or should I use a thick wire
>on the housewall down to a ground rod?

Hi Ruben,

The water pipe is better, a ground rod is OK. For a balanced system,
ground's only use is for AC safety (to protect YOU).

>I fear that the wire down to the ground rod may emit unwanted RF (have read
>that somewhere).

As you are using a dipole, this unwanted radiation will occur only if
it is unbalanced. The radiation comes from "Common Mode" current.
"Common Mode" current is the difference in the two currents in each
half of the system that is unbalanced. Dipoles are balanced designs,
but not always balanced installations.

How can you tell when you have an unbalanced system? This is not
easy, OR if it is easy, it is a real problem.

One SWR reading does NOT indicate an unbalanced system. One SWR
reading does NOT indicate a balanced system.

The most obvious sign of "Common Mode" current occurs when your
transmitter acts odd by being difficult to tune, folding back its
power, or you can actually feel the sensation of current on bare metal
(like connector shells or a chassis). A minor sign of "Common Mode"
current is receiving signals on your dipole that should be in its
null. This last sign may even be a preferred condition, thus subtler
signs may go unnoticed.

What this means is that "Common Mode," or system unbalance, or ground
wire radiation may not be a problem even if it exists.

73's
Richard Clark, KB7QHC

# 1726. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-03 18:20:13 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41891f9d$1_1@127.0.0.1>
Source record: 87121

Reg Edwards wrote:

>W5DXP wrote:
>>My solution is to get Reg to write a new program. :-)

> My patience is wearing thin.

Reg, the smiley face means it was a joke. Is you patience
wearing thin concerning my feeble attempts at humor? :-)

> THE MAGNITUDE OF THE CURRENT DISTRIBUTION ALONG THE COIL IS ALWAYS THE SAME
> COSINE CURVE BUT WHICH IS TRUNCATED (SLICED OFF) AT VARYING ANGULAR DEGREES
> AT EITHER OR BOTH ENDS.

Yep, I previously guessed the SQRT(L/C) would be very high for a large coil.
After using your Solonoid program, it seems my guess was much too high. The
Z0 of the coil seems to be more like 1k-2k than the 10k I first guessed.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

# 1727. Re: Telescopic to coax adaptor?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-03 18:21:05 UTC
From: mike.s.spence@btopenworld.com
Message-ID: <c549c044.0411031021.301d6d8b@posting.google.com>
Source record: 87220

jgboyles@aol.com (JGBOYLES) wrote in message
news:<20041102190614.06239.00000015@mb-m29.aol.com>...
> Sure, just connect a short jumper from the center conductor of the coax to the
> telescopic antenna.
> What is a 'Heath Robinson' idea? Is that something desirable?
>
>
> 73 Gary N4AST

A 'Heath Robinson' idea is one like you've suggested. A bit of a
bodge but it'll do the job for now.

Mike

# 1728. Re: CATV splitter question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-03 18:30:07 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <lb8io0dmsp3397ced3dob4jq2nh3bckifc@4ax.com>
Source record: 87122
Cross-posted to: rec.radio.amateur.antenna,rec.video.cable-tv,comp.home.automation

On Wed, 03 Nov 2004 10:04:53 GMT, Jerry <jerry@nolikeyspam.com> wrote:
>1. Should I get a 4-way coax splitter with each output at 7dB and
>terminate the unused output? This would leave an output free for future
>expansion in Room 4. I saw such a splitter at Radio Shack. Is there a
>better brand?

Hi Jerry,

Sounds fine. Better brand? Probably not (in other words, same
chinese product with a different label).

>2. Should I terminate the cable in the unused Room 1?

Only if your picture appears to be fuzzy or distorted; however, it is
a simple matter to perform and doing it tends toward a better
solution. If you do, you should also terminate the unused splitter
output too.

73's
Richard Clark, KB7QHC

# 1729. Re: CATV splitter question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-03 18:41:29 UTC
From: Sylvan Butler <ZsdbUse1+noZs_0411@Zbigfoot.Zcom.invalid>
Message-ID: <slrncoi9ip.m60.ZsdbUse1+noZs_0411@knoppix.internal>
Source record: 87166
Cross-posted to: rec.radio.amateur.antenna,rec.video.cable-tv,comp.home.automation

On Wed, 03 Nov 2004 10:04:53 GMT, Jerry <jerry@nolikeyspam.com> wrote:
> Cable comes into my house's outside junction box into a 4-way splitter
> with each output saying 7dB (whatever that means), then goes to four
> rooms.

Usually that "7dB" means the output has 7dB less signal strength than the input. In this context, 3dB down means one-half (1/2) the signal, so 7dB means 1dB less than 1/4 the signal. In an ideal 4-way splitter, each output would have 1/4 the signal, so your splitter has some 1db additional real-world loss (expected, and 1db is OK, 1.5db is bad).

To overcome loss and signal division, you might need to add a distribution amplifier before the first splitter in the junction box. Usually a cable company will install one, especially if using a cable modem. This is usually a box with a cable in, cable out, and a cable connected to a power adapter. Sometimes you can get an amplifier combined with a splitter. I don't like those.

In addition to a loss specification, the bandwidth of the splitter (or amplifier) is often specified. For satellite and digital cable, and my preference in all installs, are splitters with a bandwidth up to at least 1ghz.

> Room 1: Bedroom without any TV. Coax not terminated.
>
> Room 2: Office with cable modem and TV. Cable company used a 2-way
> splitter with each output saying 3.5dB.

That splitter shows that each output gets a little less than 1/2 the input signal, or less than 1/8 of the original signal (1/4 divided by 2).

> Room 3: Bedroom with a TV.
>
> Room 4: My main media room. Here's where I need the right coax splitter.
> I currently have a 2-way splitter connected to a VCR and a TiVo. I'd
> like to add a DVD recorder with a cable-ready tuner. All 3 devices would
> have coaxial RF cable input.
>
> My two questions:
>
> 1. Should I get a 4-way coax splitter with each output at 7dB and
> terminate the unused output? This would leave an output free for future
> expansion in Room 4.

A 4-way splitter would cut signal strength in half to each of the devices currently connected to the 2-way (from 1/8 to 1/16).

A 3-way splitter (or two of them) would give a slightly stronger signal if used instead of the four-ways. Splitters are also available in 6-way and on up. Just a bit harder to find. :) I've had good results with the high-grade (low loss, wide bandwidth) splitters from MCM Electronics.

Can you run any additional coax from the junction box to the various rooms? My preference would be to disconnect (at the junction box) Room 1 (since it isn't used) and run that output via a new line to Room 4.

Now with 1/2 the available signal in room 4, you can run 1/8 1/8 1/4 to three devices, or add a 2-way splitter and run 1/8 1/8 1/8 1/8 to four. Or you could replace the splitter in the junction box with a bigger number of outputs and that way everything would have equal signal.

If you ever have cable modem problems with signal strength, you could either run a second line to room 2 (one for each device) or else use a 2-way splitter at the junction box before the 4-way, connecting the 4-way to one output (1/2 the signal) and the room 2 line to the other (1/2 the signal to room 2, where it gets split so each device gets 1/4 instead of the current 1/8).

> 2. Should I terminate the cable in the unused Room 1?

In theory, all unused outputs should be terminated. It might or might not make any noticable difference.

sdb

# 1730. Re: 32 ft end tuned vertical or??

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-03 18:43:47 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <j19io0dgrlve60sljd6edppmbu36aqn0gn@4ax.com>
Source record: 87123

On Wed, 3 Nov 2004 09:39:49 -0800, "denton" <denton@oregontrail.net>
wrote:

>Hi all...
>I have a 32 ft aluminum mast that I want to feed at the bottom with an
>extensive radial system laying on or just below the ground.

Hi Denton,

Sounds like a good start.

>I plan on homebrewing a matching network at the base, with tuning stubbs on
>the vertical radiator and plan to use the antenna on 30 thru 10 meters.

Do you really want to run outside to change bands?

>Before I get too into the project, I am wondering if I would have a better
>antenna if I simply purchase a Gap Titan, butternut or something of their
>irk. Thanks in advance.

Not particularly, except maybe for the higher frequencies. Your 10M
of radiator being used on a 10M wavelength portends difficult tune up
(perhaps part of your motivation for the matching box). However,
being one wave long, it also has major radiation lobes pointing up
rather than out.

It is most suited for 40M (quarterwave) through roughly 15M (5/8'ths).

73's
Richard Clark, KB7QHC

# 1731. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-03 18:47:59 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <418925f2$1_4@127.0.0.1>
Source record: 87124

Tom Donaly wrote:
> You'll find, though, that the difference between a
> continuously loaded antenna and an antenna with the loading coil,
> say, halfway up from the feedpoint won't amount to a hill of beans.

Wrong! Bragging rights after a 75m shootout are worth a lot more
than a hill of beans. A helical antenna has NEVER beaten a center-
loaded antenna in a 75m shootout. And in fact, my junk box *top-
loaded* antenna beat all the center-loaded bugcatchers in one of
the CA shootouts. The current below the coil is the highest current
in the average 75m mobile antenna. The longer that uninhibited
section is, the stronger the radiated signal, thus my success in
the shootout. My bottom section was about ten feet long, then a
horizontal coil and horizontal top hat. I'm going to refine that
configuration when I get time.

> There's still no such thing as a "current drop."

The decrease (drop) in current across a loading coil installed in
a standing-wave antenna does NOT in any way violate Kirchhoff's current
law. One can imply from Kirchhoff's current law that there is no current
decrease (drop) across a point. I don't know anyone who disagrees with
that so any argument is just a straw man. Kirchhoff never said the
current at one point in a network had to equal the current at another
point in the network.

Many patches have been added to the DC circuit model to try to adapt
it to RF networks. Some function after a fashion and some fail utterly.
We all need to be able to recognize the difference. For EM waves, the
E-field and H-field are often affected in the same way. Saying that
the E-field voltage drops but the H-field current doesn't drop is
simply nonsense. Likewise, saying that the H-field current flows and
the E-field voltage doesn't flow is nonsense. The E-field and H-field
are usually inseparable.
--
73, Cecil http://www.qsl.net/w5dxp

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# 1732. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-03 18:50:53 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <4189269f$1_4@127.0.0.1>
Source record: 87125

Tom Donaly wrote:
> For a guy who is always excoriating people for believing old wives
> tales, you've just told a whopper, Reg. It's true, you might get an
> answer using the above theory that is "good enough for who it's for,"
> but as an expression of what's actually happening in the antenna, it's
> hopelessly simplistic.

For this discussion, the magnitude of radiation is irrelevant except
as it relates to "losses" from the system. So please enlighten us as
to "what's actually happening" to the standing-wave current "in the
antenna".
--
73, Cecil http://www.qsl.net/w5dxp

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# 1733. Re: Ground rod or water pipe?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-03 19:05:52 UTC
From: Jack Painter <223bthp@cox.net>
Message-ID: <m_9id.47139$_g6.37776@okepread03>
Source record: 87127

Ruben, some corrections from:
"Richard Clark" <kb7qhc@comcast.net> writing:
Ruben Undheim" <saltmakrell@hotmail.com> wrote:
> >Should I use the water pipe system as ground, or should I use a thick
wire
> >on the housewall down to a ground rod?
>
> Hi Ruben,
>
> The water pipe is better, a ground rod is OK. For a balanced system,
> ground's only use is for AC safety (to protect YOU).

About the worst advice ever given, offering a water pipe in a second or third story structure as an AC safety ground. First, unless you can verify that the cold water supply in your structure is a bonded grounding electrode conductor (and it probably is not), it must not be used for any kind of electrical safety connection. Secondly, the AC circuit breakers that are designed to protect your life by limiting the time-frame of a current overload or neutral-sensing return voltage deficit cannot do so if you modify the circuit path. This is dangerous even if the ground is as poor as you would achieve from the elevated potential of your second or third story flat. Only the bonding of all shack equipment, at least some of which would be directly connected to the AC mains would provide additional electrical safety. Grounding does NOT provide electrical safety, bonding does. It was a typical "unbalanced amateur's response" to tell you otherwise. In an equipment fault event, you could easily be killed by the current diverted to a separate station ground if the equipment was not properly bonded first.

Best regards,

Jack Painter
Virginia Beach

# 1734. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-03 19:06:01 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <8naio0dvv4i7oftmd9ab0t58ou5so7u3sv@4ax.com>
Source record: 87126

On Wed, 03 Nov 2004 12:50:53 -0600, Cecil Moore <w5dxp@hotmail.com>
wrote:
>magnitude of radiation is irrelevant
in an antenna forum, this is ludicrous.

# 1735. Re: Is that a radio wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-03 19:08:45 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41892acf$1_3@127.0.0.1>
Source record: 87128

Ed Price wrote:
> We should, by all means, use diplomacy and incentives, but they seem to
> have not worked very well when Sadaam announced that Kuwait was the
> newest province of Iraq.

Whoa there, Ed. Kuwait was once part of Iraq. Like the Damned Yankees
fought to re-annex Texas (even though Texas had the legal right to
secede) Sadaam was fighting to re-annex Kuwait. The winners get to
write the history. If the Confederacy had won the war, Lincoln would
probably have gone down in Confederate history as a terrorist.

And the fact remains - we waited much too long to do something about
Sadaam. The statue of limitations had run out on the Kuwaiti invasion.
That oversight stuck in the gut of Bush #41 and therefore stuck in
the gut of Bush #43. IMO, it was more *personal* revenge against Sadaam
than any real threat to the USA. P.S. I didn't vote for Kerry either -
I voted Libertarian. The Libertarian presidential candidate promised
to bring all of our troops back to the USA where they can perform their
constitutional duties.
--
73, Cecil http://www.qsl.net/w5dxp

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# 1736. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-03 19:09:26 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <dvaio0lhtj1hjtoe5n0ps8r78723ba3pai@4ax.com>
Source record: 87129

On Wed, 03 Nov 2004 12:47:59 -0600, Cecil Moore <w5dxp@hotmail.com>
wrote:
>current across a loading coil installed in a standing-wave antenna does NOT in any way
violate Kirchhoff's current
>law.
There is no such law of a current into anything but a point (both
dimensionless and componentless).

# 1737. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-03 19:10:48 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41892b4a$1_3@127.0.0.1>
Source record: 87130

Yuri Blanarovich wrote:
> Check the results of shootouts comparing
> Haasticks and other continuously loaded antennas vs. Bugcatchers or top loaded.

Good idea, Yuri. Rename Hamsticks to Hahasticks. :-)
--
73, Cecil http://www.qsl.net/w5dxp

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# 1738. Re: 32 ft end tuned vertical or??

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-03 19:19:23 UTC
From: denton <denton@oregontrail.net>
Message-ID: <10oibppf7s8pe13@corp.supernews.com>
Source record: 87131

Well I am planning on the matching network to be a remote....something
tweekable from the shack.
"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:j19io0dgrlve60sljd6edppmbu36aqn0gn@4ax.com...
> On Wed, 3 Nov 2004 09:39:49 -0800, "denton" <denton@oregontrail.net>
> wrote:
>
>>Hi all...
>>I have a 32 ft aluminum mast that I want to feed at the bottom with an
>>extensive radial system laying on or just below the ground.
>
> Hi Denton,
>
> Sounds like a good start.
>
>>I plan on homebrewing a matching network at the base, with tuning stubbs
>>on
>>the vertical radiator and plan to use the antenna on 30 thru 10 meters.
>
> Do you really want to run outside to change bands?
>
>>Before I get too into the project, I am wondering if I would have a better
>>antenna if I simply purchase a Gap Titan, butternut or something of their
>>irk. Thanks in advance.
>
> Not particularly, except maybe for the higher frequencies. Your 10M
> of radiator being used on a 10M wavelength portends difficult tune up
> (perhaps part of your motivation for the matching box). However,
> being one wave long, it also has major radiation lobes pointing up
> rather than out.
>
> It is most suited for 40M (quarterwave) through roughly 15M (5/8'ths).
>
> 73's
> Richard Clark, KB7QHC

# 1739. Re: CATV splitter question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-03 19:26:20 UTC
From: dplatt@radagast.org
Message-ID: <10oic6sfjjn254b@corp.supernews.com>
Source record: 87132
Cross-posted to: rec.radio.amateur.antenna,rec.video.cable-tv,comp.home.automation

In article <4188AD44.3131@nolikeyspam.com>,
Jerry <jerry@nolikeyspam.com> wrote:

>A question from a lay person. I'm looking for information on what kind
>of CATV splitter to buy. I have Time-Warner analog CATV and don't use
>any cable box. All my devices use coaxial RF cable as input. Here's my
>setup...
>
>Cable comes into my house's outside junction box into a 4-way splitter
>with each output saying 7dB (whatever that means), then goes to four
>rooms.

That means that the RF signal level at each output port is 7 dB below
the level being fed into the input. That's not too bad - a perfectly
lossless 4-port splitter would divide the power four ways, resulting
in an output level at each port which was 6 dB below the input level.
This splitter has 1 dB of additional loss.

>
>Room 1: Bedroom without any TV. Coax not terminated.
>
>Room 2: Office with cable modem and TV. Cable company used a 2-way
>splitter with each output saying 3.5dB.

Again, that's not too bad - 3 dB of reduction per port (50% of the
power going each way), plus an additional .5 dB of loss in line with
each port.

This means that your TV and cable modem are seeing signal levels 10.5
dB below the level that your cable company is feeding your house.

>Room 3: Bedroom with a TV.
>
>Room 4: My main media room. Here's where I need the right coax splitter.
>I currently have a 2-way splitter connected to a VCR and a TiVo. I'd
>like to add a DVD recorder with a cable-ready tuner. All 3 devices would
>have coaxial RF cable input.
>
>My two questions:
>
>1. Should I get a 4-way coax splitter with each output at 7dB and
>terminate the unused output? This would leave an output free for future
>expansion in Room 4. I saw such a splitter at Radio Shack. Is there a
>better brand?

You could do that. You'll be wasting some of the RF power fed to that room, into the termination resistor on the fourth port.

Or, you could daisy-chain an additional 3.5 dB splitter off of one of the two ports on the existing two-way splitter. This approach will give you three outputs, two of which have lower RF levels than the third. Use the third port (the one coming out of the first splitter) to feed whichever device seems to need the strongest signal for a decent picture.

>2. Should I terminate the cable in the unused Room 1?

Generally a good idea, for several reasons. RFI is one such reason... unterminated ports can "leak" RF, and some of the cable-TV channels overlap with amateur bands (e.g. 2 meter) and aircraft/public-safety bands. Cable companies are required to [try to] keep their cable plants leak-free, due to the interference that these cable channels can cause.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will boycott any company which has the gall to send me such ads!

# 1740. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-03 19:27:51 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41892f60$1_2@127.0.0.1>
Source record: 87133

Richard Harrison wrote:
> There is a difference in impedance between the ends of a loading
> coil so that the current at its ends are different.

Good point, Richard. Why isn't anyone arguing that the current on each side of a loading coil in an antenna tuner is equal? It can easily be proven to be different using a Smith Chart.

> "For present purposes" we may declare anything so long as we don`t
> define our purposes, but Fig 9-22 on page 9-15 of ON4UN`s "Low-Band
> DXing" is significant and no one has said his pictures are wrong and
> given reasons.

I haven't seen that book, but I have seen reproductions of his diagrams on the net. The situation is not as simple as asserting that the coil occupies the number of degrees not occupied by the vertical sections. As usual, the facts lie somewhere in between the two rail arguments.

1. The currents at each end of the coil are not equal. (shoots down rail #1 argument)

2. The current distribution over the entire loaded mobile antenna is not a standing cosine wave. (shoots down rail #2 argument)

Since the coil is a different characteristic impedance than the vertical sections, there exist reflections, both ways, from each end of the coil. Taking four additional sets of reflections into account mathematically is extremely difficult. That's probably why nobody has ever attempted it.

However, a bugcatcher antenna can be approximated by the following:

---600 ohm feedline---+---1600 ohm feedline---+---600 ohm feedline---open
bottom section loading coil top section

By modeling with EZNEC, I am attempting to ascertain the VF of the loading coil. That's the only thing standing in the way of a conventional analysis.
--
73, Cecil http://www.qsl.net/w5dxp

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# 1741. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-03 19:30:51 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41892ffd$1_2@127.0.0.1>
Source record: 87134

Tom Donaly wrote:
> So a shootout is your idea of a reliable antenna test.

Before you dismiss those efforts, I suggest you find out who was
involved in the design of the measurements. (Hint: It wasn't me)
--
73, Cecil http://www.qsl.net/w5dxp

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# 1742. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-03 19:37:50 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <418931a2$1_2@127.0.0.1>
Source record: 87135

Richard Clark wrote:

> Cecil Moore <w5dxp@hotmail.com> wrote:
>>magnitude of radiation is irrelevant
>
> in an antenna forum, this is ludicrous.

Sorry, I thought the meaning was clear. The "magnitude of radiation is irrelevant" to the argument which is confined to current through a loading coil. You must be getting senile, Richard. You keep forgetting what the argument is all about. I trust that's not a deliberate diversion. :-)
--
73, Cecil http://www.qsl.net/w5dxp

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# 1743. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-03 19:39:57 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41893220_2@127.0.0.1>
Source record: 87136

Richard Clark wrote:

> Cecil Moore <w5dxp@hotmail.com> wrote:
>
>>current across a loading coil installed in a standing-wave antenna does NOT in any way violate Kirchhoff's current
>>law.
>
> There is no such law of a current into anything but a point (both
> dimensionless and componentless).

My "point" exactly!!! A bugcatcher coil is NOT a point.
--
73, Cecil http://www.qsl.net/w5dxp

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# 1744. Re: 32 ft end tuned vertical or??

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-03 20:32:22 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <sWIbWDNWBUiBFA6B@ifwtech.co.uk>
Source record: 87137

Richard Clark wrote:
>On Wed, 3 Nov 2004 09:39:49 -0800, "denton" <denton@oregontrail.net>
>wrote:
>
>>Hi all...
>>I have a 32 ft aluminum mast that I want to feed at the bottom with an
>>extensive radial system laying on or just below the ground.
>
>Hi Denton,
>
>Sounds like a good start.
>
>>I plan on homebrewing a matching network at the base, with tuning stubbs on
>>the vertical radiator and plan to use the antenna on 30 thru 10 meters.
>
>Do you really want to run outside to change bands?
>
>>Before I get too into the project, I am wondering if I would have a better
>>antenna if I simply purchase a Gap Titan, butternut or something of their
>>irk. Thanks in advance.
>
>Not particularly, except maybe for the higher frequencies. Your 10M
>of radiator being used on a 10M wavelength portends difficult tune up
>(perhaps part of your motivation for the matching box). However,
>being one wave long, it also has major radiation lobes pointing up
>rather than out.
>
>It is most suited for 40M (quarterwave) through roughly 15M (5/8'ths).

It will make an excellent antenna for the bands Richard indicates: down
to 40m, and up to about 15m.

You do seem to be prepared to spend some money, so if you don't want to
run outside to change bands, a remote auto-ATU would be a very good buy.

That is exactly what I am using now - a 32ft mast with an auto-ATU at
the bottom. If you can tilt the mast over easily, you can also plug in a
horizontal loading wire at the top to make an inverted-L for 80m and
even 160m.

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

## 1745. Re: Is that a radio wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-03 20:48:55 UTC
From: Chuck <wa7rai@raibeam.com>
Message-ID: <mQbid.6441$GN4.4710@okepread02>
Source record: 87142

```
Ed Price <edprice@cox.net> wrote in message news:G6Whd.91362$kz3.46015@fed1read02...
>
> "chuck" <wa7rai@raibeam.com> wrote in message
> news:HARhd.90365$kz3.85164@fed1read02...
> >
> > Rather than offer a credible retort, you
> > attempt to demean my position.
> > Intellectual honesty isn't one of your
> > strong points, I see.
> >
> > Chuck
>
> On the contrary, intellectual honesty is something you couldn't recognize if
> it were stuffed up your nose, sideways.
>
> Ed
```

A response which only serves to confirm...

# 1746. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-03 20:55:20 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <YAbid.38204$QJ3.9899@newssvr21.news.prodigy.com>
Source record: 87138

Cecil Moore wrote:
> Tom Donaly wrote:
>
>> You'll find, though, that the difference between a
>> continuously loaded antenna and an antenna with the loading coil,
>> say, halfway up from the feedpoint won't amount to a hill of beans.
>
>
> Wrong! Bragging rights after a 75m shootout are worth a lot more
> than a hill of beans. A helical antenna has NEVER beaten a center-
> loaded antenna in a 75m shootout. And in fact, my junk box *top-
> loaded* antenna beat all the center-loaded bugcatchers in one of
> the CA shootouts. The current below the coil is the highest current
> in the average 75m mobile antenna. The longer that uninhibited
> section is, the stronger the radiated signal, thus my success in
> the shootout. My bottom section was about ten feet long, then a
> horizontal coil and horizontal top hat. I'm going to refine that
> configuration when I get time.
>
>> There's still no such thing as a "current drop."
>
>
> The decrease (drop) in current across a loading coil installed in
> a standing-wave antenna does NOT in any way violate Kirchhoff's current
> law. One can imply from Kirchhoff's current law that there is no current
> decrease (drop) across a point. I don't know anyone who disagrees with
> that so any argument is just a straw man. Kirchhoff never said the
> current at one point in a network had to equal the current at another
> point in the network.
>
> Many patches have been added to the DC circuit model to try to adapt
> it to RF networks. Some function after a fashion and some fail utterly.
> We all need to be able to recognize the difference. For EM waves, the
> E-field and H-field are often affected in the same way. Saying that
> the E-field voltage drops but the H-field current doesn't drop is
> simply nonsense. Likewise, saying that the H-field current flows and
> the E-field voltage doesn't flow is nonsense. The E-field and H-field
> are usually inseparable.

Ahm still ignorin' you, Cecil. You don't actually read posts, you just
respond to what you think they ought to mean in order to be able to
say whatever you've just made up in your head.
73,
Tom Donaly, KA6RUH

# 1747. Re: Balun description: who is right

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-03 20:55:39 UTC
From: Johann Höchtl <johann.hoechtl@myrealbox.com>
Message-ID: <4189455c$0$12346$91cee783@newsreader01.highway.telekom.at>
Source record: 87139

Jay in the Mojave wrote:
> Hello Johann:
>
> Loose the coax Balun, and get a toroid balun.
>
>
> After replacing the coax balun, with the Amodon 1 to 1 HBH50 current
> type balun, on my yagi beams it was like night and day. Ten-4.
>
> Jay in the Mojave
>

Did you throw it because of signal loss or because the coax balun did
not worked as expected, so what a balun (balanced <--> unbalanced) is
meant to be?

It's not all about that i really need a balun when running a dipole
antenna and rg58 but i fear RIF with neighbors ....

## 1748. Re: Is that a radio wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-03 21:03:00 UTC
From: theplanters95@aol.comnospam
Message-ID: <20041103160300.06264.00000011@mb-m18.aol.com>
Source record: 87140

More proof for the true and living Christian God than for evolution.

This is an antenna group. Let's get back to antennas.

The election is over. Bush won. The people have spoken. Let's all work together to return America to a great nation.

Randy

# 1749. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-03 21:07:25 UTC
From: k3bu@aol.comNoUsama
Message-ID: <20041103160725.08186.00000016@mb-m05.aol.com>
Source record: 87141

>
>Good point, Richard. Why isn't anyone arguing that the current on
>each side of a loading coil in an antenna tuner is equal? It can
>easily be proven to be different using a Smith Chart.
>

I mentioned way back too, question for Rauchians: How come we get RF current
drop across the RF choke, hmmm?
Or Are you going to argue that it is the same at both ends?
Extreme case but proves the point.
Get your "books" out, say it ain't so and look even more foolish.

I like the Hahastick :-) Yea, should have been Hamstick.

Yuri, K3BU.us
Viva Bush!

# 1750. Re: Balun description: who is right

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-03 21:32:05 UTC
From: Johann Höchtl <johann.hoechtl@myrealbox.com>
Message-ID: <41894de7$0$5282$91cee783@newsreader02.highway.telekom.at>
Source record: 87143

Reg Edwards wrote:

> Johann,
>
> Practically ANYTHING will do for a coaxial or similar choke balun. It's the
> most uncritical component in the whole of radio engineering.
>

...

>
>
> I have a program which does the calculations but which I have not yet fully
> tested except for the resonant frequency. So it is not yet available from my
> website.
>
> I have attached small program (43 kilo-bytes) named SELFRES2 to this
> message, for which I may be reprimanded. It is not zipped up. You should be
> able to run it immediately after download just by clicking its icon. Let's
> see.
>
Thank you very much for your in depth explanaition. The program worked
just fine.

I am not a "hamer" but do CB-radio and the only thing which is legal
there is to play around with different antenna types. I am still
starting to get into the whole matter by reading books and info on the
internet.

> What do you get?

I get a self resonance frequency of 23MHz and ~ 9 kOhm @ 28MHz test
frequency. For CB radio this should be pretty much sufficient, though
now i would try to get resonance frequency closer to operation frequency.

> ----
> Reg, G4FGQ
>
>
>

# 1751. Re: Is that a radio wire?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-03 21:48:12 UTC
From: Chuck <wa7rai@raibeam.com>
Message-ID: <Kmcid.6443$GN4.302@okepread02>
Source record: 87144

Ed Price <edprice@cox.net> wrote in message news:kQOhd.88751$kz3.76093@fed1read02...
>
> "Cecil Moore" <w5dxp@hotmail.com> wrote in message
> news:41866f31$1_3@127.0.0.1...
> > Ed Price wrote:
> >> Sadaam didn't need WMD to invade Kuwait or to threaten Saudi Arabia. He
> >> certainly had some previously, and had no compunction about using them.
> > >
> > > Punishing someone for crimes yet un-committed is un-American and
> > > un-Constitutional. Methinks the Iraq war is Bush's "One Bridge Too
> > > Far" (WWII war movie).
> > > --
> > > 73, Cecil http://www.qsl.net/w5dxp
> >
> >
> When one country (Iraq) invades and annexes another country (Kuwait), the
> proper response is not simply restoring the status quo. There have to be
> negative consequences for such aggression. Sadaam (and Iraq) never seemed to
> understand that concept. The fact that we did not dismember Iraq in 1991
> came back to haunt us.

Ed,

We didn't finish off Saddam simply because
it would have de-stabilized the area. Bush Sr.
advised Dubya not to invade for this reason...
advice which he chose to ignore for personal
political advantage (and Halliburton's gain).

As evil a tyrant as he was, Saddam kept the
fanatical Shiites suppressed. Dubya mindlessly
opened this Pandora's Box, as is evidenced by
the current situation there now. As much as
we'd like to believe otherwise, we cannot win
in Iraq unless we become as evil as Saddam.

Is this who we are to become?

Chuck

# 1752. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-03 22:36:30 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <v3nio09mebmdghr2euk95el8t80r797635@4ax.com>
Source record: 87145

On Wed, 03 Nov 2004 13:39:57 -0600, Cecil Moore <w5dxp@hotmail.com>
wrote:
>>>current across a loading coil installed in a standing-wave antenna does NOT in any way violate Kirchhoff's current
>>>law.
>> There is no such law of a current into anything but a point (both
>> dimensionless and componentless).
>My "point" exactly!!! A bugcatcher coil is NOT a point.
Hence, the first statement above was a troll.

# 1753. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-03 22:40:22 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <1anio09smos7j2m08u6rfbbe79fh6r1l6n@4ax.com>
Source record: 87146

On Wed, 03 Nov 2004 13:37:50 -0600, Cecil Moore <w5dxp@hotmail.com>
wrote:
>The "magnitude of radiation is irrelevant" to the argument which is confined to current through a loading coil.
Which is a ludicrous observation in an antenna forum.

# 1754. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-03 22:42:19 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41895cdd$1_3@127.0.0.1>
Source record: 87147

Tom Donaly wrote:
> Ahm still ignorin' you, Cecil. You don't actually read posts, ...

Actually, I do read the posts and respond mostly to the old wives tales.
You and I probably agree on 99% of the physics. It's that other one per-
cent of physics based on old wives' shortcuts to which I object. Shortcuts
are NOT the laws of physics!!!

Hint: Every shortcut has a shortcoming.
--
73, Cecil http://www.qsl.net/w5dxp

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# 1755. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-03 22:50:31 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <Xgdid.17418$6q2.13558@newssvr14.news.prodigy.com>
Source record: 87148

Yuri Blanarovich wrote:
>>Good point, Richard. Why isn't anyone arguing that the current on
>>each side of a loading coil in an antenna tuner is equal? It can
>>easily be proven to be different using a Smith Chart.
>>
>
>
> I mentioned way back too, question for Rauchians: How come we get RF current
> drop across the RF choke, hmmm?
> Or Are you going to argue that it is the same at both ends?
> Extreme case but proves the point.
> Get your "books" out, say it ain't so and look even more foolish.
>
> I like the Hahastick :-) Yea, should have been Hamstick.
>
> Yuri, K3BU.us
> Viva Bush!
>
>
>

Since when has anyone claimed it's impossible to make a coil that
has a non-constant current distribution? You guys sure go out of
your way to pat yourselves on the back for proving something no
one has ever argued about. For those who really want to learn
about loading coils on small antennas, go to Tom
Rauch's web page and learn how a real engineer deals with
the problem.
73,
Tom Donaly, KA6RUH

# 1756. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-03 22:53:00 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41895f5e$1_4@127.0.0.1>
Source record: 87149

Richard Clark wrote:
> Hence, the first statement above was a troll.

Nope, just a statement of fact, contradicting W8JI's assertion that
the current has to be the same at both ends of a coil in order to
satisfy Kirchhoff's laws. I'm finding it hard to ascertain which
side you are on, Richard - reality or W8JI's? Come to think of it,
the only thing upon which you have ever disagreed with me is
my style, not my technical assertions.
--
73, Cecil http://www.qsl.net/w5dxp

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# 1757. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-03 23:02:13 UTC
From: k3bu@aol.comNoUsama
Message-ID: <20041103180213.06333.00000038@mb-m18.aol.com>
Source record: 87150

>For those who really want to learn
>about loading coils on small antennas, go to Tom
>Rauch's web page and learn how a real engineer deals with
>the problem.
>73,
>Tom Donaly, KA6RUH
>

Yea, that current across the coil is constant.
Can you specify what engineering degree Tom has, from what school?

Yuri

# 1758. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-03 23:08:55 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <03pio01ukei4qlomv9murg18dgffelkc1o@4ax.com>
Source record: 87151

On Wed, 03 Nov 2004 16:53:00 -0600, Cecil Moore <w5dxp@hotmail.com>
wrote:

>reality or W8JI's? Come to think of it,
>the only thing upon which you have ever disagreed with me is
>my style, not my technical assertions.

# 1759. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-03 23:10:19 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <l3pio0djmq3o1juba6rt672a1um1mmjqqs@4ax.com>
Source record: 87152

On Wed, 03 Nov 2004 16:53:00 -0600, Cecil Moore <w5dxp@hotmail.com>
wrote:
>Come to think of it, the only thing upon which you have ever disagreed with me is
>my style, not my technical assertions
which side you are on, reality or your own?

# 1760. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-03 23:19:29 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41896593$1_3@127.0.0.1>
Source record: 87153

Tom Donaly wrote:
> Since when has anyone claimed it's impossible to make a coil that
> has a non-constant current distribution?

Tom, W8JI claimed such in the following quote from eHam.net:

"If you look at HOW an inductor works, the current flowing in
one terminal ALWAYS equals the current flowing out the other
terminal."

Maybe you should catch up on the argument before you expose your
ignorance of the argument any farther. Tom's above assertion is
what the argument was/is all about. Your posting proves that you
are ignorant of what the argument is all about.

> You guys sure go out of your way to pat yourselves on the back
> for proving something no one has ever argued about.

You are continuing to exhibit your ignorance. W8JI (your hero)
asserted the above quotation that the current flowing in one terminal
of an inductor "ALWAYS" equals the current flowing out the other
terminal. Are you going to back him up on that assertion or not?

> For those who really want to learn
> about loading coils on small antennas, go to Tom
> Rauch's web page and learn how a real engineer deals with
> the problem.

Tom Rauch is the person who made the above assertion of which you
are obviously ignorant. Please alleviate your ignorance and get
back to us. Do you really believe that, for an inductor, "the current
flowing in one terminal ALWAYS equals the current flowing out
the other terminal"? It's a simple yes/no question and it's time
for you to $hit or get off the pot.
--
73, Cecil http://www.qsl.net/w5dxp

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# 1761. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-03 23:28:18 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <418967a4$1_5@127.0.0.1>
Source record: 87154

Yuri Blanarovich wrote:

>>For those who really want to learn
>>about loading coils on small antennas, go to Tom
>>Rauch's web page and learn how a real engineer deals with
>>the problem.

> Yea, that current across the coil is constant.
> Can you specify what engineering degree Tom has, from what school?

Not only that, can he defend this assertion of Tom Rauch in his
response to your posting on eHam.net?

"If you look at HOW an inductor works, the current flowing in one
terminal ALWAYS equals the current flowing out the other terminal."

Has the definition of "ALWAYS" changed while I wasn't looking?????
--
73, Cecil http://www.qsl.net/w5dxp

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# 1762. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-03 23:32:22 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41896898$1_4@127.0.0.1>
Source record: 87155

Richard Clark wrote:

> Cecil Moore <w5dxp@hotmail.com> wrote:
>>Come to think of it, the only thing upon which you have ever disagreed with me is
>>my style, not my technical assertions
>
> which side you are on, reality or your own?

The aliens instructed me to deliver this knowledge to earthlings.
--
73, Cecil http://www.qsl.net/w5dxp

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# 1763. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-03 23:36:12 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cmbq1c$dgi$1@sparta.btinternet.com>
Source record: 87156

"My patience is getting thin" was also a joke. Seems it fell flat.

# 1764. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-03 23:50:05 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <m4rio0hq3hkc23occ27rp0aq0amh4mua9p@4ax.com>
Source record: 87157

On Wed, 03 Nov 2004 17:32:22 -0600, Cecil Moore <w5dxp@hotmail.com>
wrote:
>The aliens instructed me to deliver this knowledge to earthlings.
Any Eric Cartman DNA in your bloodline?

# 1765. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-04 00:00:28 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <wieid.17458$6q2.16841@newssvr14.news.prodigy.com>
Source record: 87158

Cecil Moore wrote:
> Tom Donaly wrote:
>
>> Since when has anyone claimed it's impossible to make a coil that
>> has a non-constant current distribution?
>
>
> Tom, W8JI claimed such in the following quote from eHam.net:
>
> "If you look at HOW an inductor works, the current flowing in
> one terminal ALWAYS equals the current flowing out the other
> terminal."
>
> Maybe you should catch up on the argument before you expose your
> ignorance of the argument any farther. Tom's above assertion is
> what the argument was/is all about. Your posting proves that you
> are ignorant of what the argument is all about.
>
>> You guys sure go out of your way to pat yourselves on the back
>
> > for proving something no one has ever argued about.
>
> You are continuing to exhibit your ignorance. W8JI (your hero)
> asserted the above quotation that the current flowing in one terminal
> of an inductor "ALWAYS" equals the current flowing out the other
> terminal. Are you going to back him up on that assertion or not?
>
>> For those who really want to learn
>> about loading coils on small antennas, go to Tom
>> Rauch's web page and learn how a real engineer deals with
>> the problem.
>
>
> Tom Rauch is the person who made the above assertion of which you
> are obviously ignorant. Please alleviate your ignorance and get
> back to us. Do you really believe that, for an inductor, "the current
> flowing in one terminal ALWAYS equals the current flowing out
> the other terminal"? It's a simple yes/no question and it's time
> for you to $hit or get off the pot.

Go to Tom's home page and read _everything_ he wrote about loading
coils and come back here and tell us what he really thinks.
73,
Tom Donaly, KA6RUH

# 1766. Re: CATV splitter question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-04 00:14:26 UTC
From: Jerry <jerry@nolikeyspam.com>
Message-ID: <41897464.24D7@nolikeyspam.com>
Source record: 87159
Cross-posted to: rec.radio.amateur.antenna,rec.video.cable-tv,comp.home.automation

Thanks to everyone for all the good input.

Please tell me if the following would be the best solution. As mentioned in my first post, my Room 1 which currently has the CATV outlet unused, is adjacent to my main media room. Would it be best to run a coax from Room 1's unused outlet through the wall to my main media room and have no additional loss for one of my recording devices? Hugging the wall, that would be a 50 foot run. I'm not sure how much loss 50 feet of cable would create. Is RG-6 the best coax to run?

Also, I want to make the best choice for the existing 2-way split in the main media room. What's the difference between...

- 1GHz 90dB 2-Way F-Pin Splitter
- 1GHz 130dB 2-Way F-Pin Splitter
- 2GHz 90dB 2-Way F-Pin Splitter DC Passing

I saw these at
http://www.national-tech.com/catalog/fcoaxialsplitters.htm

Thanks to you all, I'm learning.

Jerry

Jerry wrote:
>
> A question from a lay person. I'm looking for information on what kind
> of CATV splitter to buy. I have Time-Warner analog CATV and don't use
> any cable box. All my devices use coaxial RF cable as input. Here's my
> setup...
>
> Cable comes into my house's outside junction box into a 4-way splitter
> with each output saying 7dB (whatever that means), then goes to four
> rooms.
>
> Room 1: Bedroom without any TV. Coax not terminated.
>
> Room 2: Office with cable modem and TV. Cable company used a 2-way
> splitter with each output saying 3.5dB.
>
> Room 3: Bedroom with a TV.
>
> Room 4: My main media room. Here's where I need the right coax splitter.
> I currently have a 2-way splitter connected to a VCR and a TiVo. I'd
> like to add a DVD recorder with a cable-ready tuner. All 3 devices would

> have coaxial RF cable input.
>
> My two questions:
>
> 1. Should I get a 4-way coax splitter with each output at 7dB and
> terminate the unused output? This would leave an output free for future
> expansion in Room 4. I saw such a splitter at Radio Shack. Is there a
> better brand?
>
> 2. Should I terminate the cable in the unused Room 1?
>
> Thanks for any suggestions.
>
> Jerry

# 1767. Re: Balun description: who is right

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-04 00:25:49 UTC
From: Jay in the Mojave <jay123a@qnet.com>
Message-ID: <10oitoe9200an38@corp.supernews.com>
Source record: 87160

Johann Hï¿½chtl wrote:

> Jay in the Mojave wrote:
>
>> Hello Johann:
>>
>> Loose the coax Balun, and get a toroid balun.
>>
>>
>> After replacing the coax balun, with the Amodon 1 to 1 HBH50 current
>> type balun, on my yagi beams it was like night and day. Ten-4.
>>
>> Jay in the Mojave
>>
>
> Did you throw it because of signal loss or because the coax balun did
> not worked as expected, so what a balun (balanced <--> unbalanced) is
> meant to be?
>
> It's not all about that i really need a balun when running a dipole
> antenna and rg58 but i fear RIF with neighbors ....

Hello Johann:

The Yagi beam antenna with the coax coil balun, showed very little change in SWR as compared to significant changes in the driven element lengths. Regardless to the amount of cussing, different type of coax coiled configurations and such, beer bottles thrown at the tower, or facing east produced a poor antenna pattern, and signal straight.

When the Amaidon 1 to 1 Current Balun was installed, this all went away. The SWR could now be changed by lengths in the driven and parasitic elements, the signal strength went to where is was supposed to, referenced to a dipole antenna, and the beams pattern sharpen up.

The coiled up coax balun, was allowing RF Energy to travel down the coax resulting in detuning the antenna significantly.

Jay in the Mojave

# 1768. GMC Speedometer RF Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-04 00:30:24 UTC
From: laborkei <laborkeiNOSPAM@hotmail.com>
Message-ID: <rleid.16221$Om6.13963@bignews5.bellsouth.net>
Source record: 87161

Hello,

Someone posed that they were having a problem with RF Interference on 40
Meters (Speedometer moves 0 to 100) some time back.
If you know solution, please send email to K4KAL. Look me up on QRZ.com

Thanks,
Keith

# 1769. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-04 00:38:59 UTC
From: jgboyles@aol.com
Message-ID: <20041103193859.06216.00000030@mb-m23.aol.com>
Source record: 87162

>"If you look at HOW an inductor works, the current flowing in one
>terminal ALWAYS equals the current flowing out the other terminal."

I think that is true. If you define current as electron flow, then the fields and radiation that a large coil may be subjected to, will not increase or decrease the number of electrons that the coil contains. As such, the amount of electrons entering the base of the coil, will equal the same number exiting the coil, with time displacement.
Consider a large physically long capcitor, with multiple plates. One can use this as a loading element. There is no electron flow between plates. However there is "displacement" current between the plates that has no physical meaning. Now what? The capacitor will be just affected as a coil.
So, from the conservation of electron flow I don't know what to believe.

73 Gary N4AST

# 1770. Re: CATV splitter question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-04 01:00:09 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <5bvio093j82a4kn8jebepkkodlscd6ftbf@4ax.com>
Source record: 87163
Cross-posted to: rec.radio.amateur.antenna,rec.video.cable-tv,comp.home.automation

On Thu, 04 Nov 2004 00:14:26 GMT, Jerry <jerry@nolikeyspam.com> wrote:

>Would it be best to run a coax from
>Room 1's unused outlet through the wall to my main media room and have
>no additional loss for one of my recording devices?

Hi Jerry,

Don't make things difficult, just spend the big bucks for the high
price spread.

>Also, I want to make the best choice for the existing 2-way split in the
>main media room. What's the difference between...
>
>- 1GHz 90dB 2-Way F-Pin Splitter
>- 1GHz 130dB 2-Way F-Pin Splitter
>- 2GHz 90dB 2-Way F-Pin Splitter DC Passing

DC passing would suggest that all these are rated for satellite TV
systems (hence the high frequency rating). The dB ratings are port
isolation (one side interfering with the other). Choose one with
highest number (either frequency or dB or both) in anticipation of
future needs - price is hardly an issue with these components.

73's
Richard Clark, KB7QHC

# 1771. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-04 01:02:59 UTC
From: Wes Stewart <n7ws_@_yahoo.com>
Message-ID: <e9vio0d0s1up3r5n8dnt809b54aei7latc@4ax.com>
Source record: 87164

On Wed, 3 Nov 2004 09:25:20 -0600, richardharrison@webtv.net (Richard Harrison) wrote:

[snip]

|"For present purposes" we may declare anything so long as we don`t
|define our purposes, but Fig 9-22 on page 9-15 of ON4UN`s "Low-Band
|DXing" is significant and no one has said his pictures are wrong and
|given reasons.

There are multiple editions of this book. Could you describe in more detail what the "pictures" are saying.

They are probably the same as in my third edition, just on different pages with different figure numbers.

I should wait for your answer, but I'm going out on a limb and guessing that they are the ones showing current distribution and "area under the curve."

If my guess is correct, then I submit that using them in the current context (no pun intended) is not applicable.

This whole "shootout" nonsense pertains to antennas with (unloaded) electrical lengths well under 0.1 lambda. Devoldere shows no examples of loaded antennas that are this short.

If I guessed wrong, then I will standby for clarification.

# 1772. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-04 01:06:35 UTC
From: dplatt@radagast.org
Message-ID: <10oj04r4h37smf7@corp.supernews.com>
Source record: 87165

>>"If you look at HOW an inductor works, the current flowing in one
>>terminal ALWAYS equals the current flowing out the other terminal."

>I think that is true. If you define current as electron flow, then the fields
>and radiation that a large coil may be subjected to, will not increase or
>decrease the number of electrons that the coil contains. As such, the amount
>of electrons entering the base of the coil, will equal the same number exiting
>the coil, with time displacement.

I think you've just proven that all antennas must have a constant
current distribution on their driven element... the same argument can
probably be made about a piece of straight wire!

More generally: I'd like to propose a thought experiment, which I
think may cause you to reconsider your conclusions.

The experiment: start with a straight length of wire 1/4 wavelength
long (minus a bit) at a frequency of interest. Install it over an
infinite ground plane and feed it at the base. You've got a resonant
"1/4 wavelength" monopole.

I think most people will agree that the net-current distribution in
said monopole is tolerably close to being a cosine function - highest
at the feedpoint, and lowest near the tip.

Mark two positions on the wire, 1/3 and 2/3 of the way along its
length. Consider the three sections of wire to be the "base", "mid",
and "tip" sections.

I think most people will agree that the net currents at the two ends
of the "mid" section are not equal. We haven't changed the
cosine-like current distribution by simply marking the third-of-the-
way points.

Now... take the "2/3" point, and pull it back (or down) towards the
base of the antenna, by some small amount... say, 1% of the length of
the "mid" section. Leave the "1/3" point right where it was. There's
now a small amount of slack in the "mid" wire. Shape the "mid"
section into a small-diameter helix, with uniform spacing between the
turns, so that the helixing of the wire just takes up the slack.

The antenna has now been shortened slightly, and some inductance has
been added to the "mid" section. Add or subtract wire at the end of
the "tip" to bring the antenna back into resonance.

Now... are the net currents at the "1/3" and "2/3" points suddenly
equal? Or, are they still unequal (but perhaps different from what

they were when the mid section was straight)? If unequal, by how much?

Now, continue repeating this process... pull the "2/3" point back towards the base by the same amount you did before (1% of the original length of the "mid" section), re-coil the "mid" section into a helix to take up the slack, adjust the length of the "tip" to re-resonate the antenna, and re-evaluate the net currents at the "1/3" and "2/3" points. You can do this "shorten and re-resonate" step a total of 100 times, at which point the "mid" section has no physical length and is a "pure" inductance. [Let me know what page you find it on in the Digi-Key catalog, please!]

You may use any strategy you wish for deciding how many turns are in the helix at each step, and what its diameter is at each step, as long as you're consistent and as long as all of the slack is used up each time.

So... we now have a total of 101 sets of measurements... all the way from "mid is a straight length of wire" to "mid is a pure inductance having no physical length". We could graph "difference in net current between points 1/3 and 2/3" on the Y axis, and "number of shortening steps taken" along the X axis.

Question: exactly how many shorten/re-coil/re-trim steps must we go through, before the net currents at the two ends of the mid-section / helix / coil become the same (mathematically identical, assuming zero resistance in the wire)?

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will boycott any company which has the gall to send me such ads!

# 1773. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-04 01:08:53 UTC
From: Wes Stewart <n7ws_@_yahoo.com>
Message-ID: <buvio0pee1b533groo8dn42gofu1je095m@4ax.com>
Source record: 87167

On 03 Nov 2004 15:01:47 GMT, k3bu@aol.comNoUsama (Yuri Blanarovich)
wrote:

|>
|> If you're really interested in the "AREA under the current curve,"
|>you'll have to figure out how to make an efficient, continuously loaded,
|>short antenna. You'll find, though, that the difference between a
|>continuously loaded antenna and an antenna with the loading coil,
|>say, halfway up from the feedpoint won't amount to a hill of beans.
|> There's still no such thing as a "current drop."
|>73,
|>Tom Donaly, KA6RUH
|
|
|You are flying in a dreamland. Check the results of shootouts comparing
|Haasticks and other continuously loaded antennas vs. Bugcatchers or top loaded.
|You guys get your noses out of the books and check the reality.

When someone posts the results of a "shootout" where the *same*
vehicle, in the *same* location, with the test antenna located at the
*same* position on the vehicle, fed with the *same* transmitter and
where the *same* receiver is used for field strength then *maybe* I'll
give some credence to the results. Otherwise, it's all hogwash.

# 1774. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-04 01:25:24 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <8yfid.61968$OD2.21018@bgtnsc05-news.ops.worldnet.att.net>
Source record: 87168

Gary,

There is not the slightest bit of mystery in the "conservation of electron flow". An important relationship in electromagnetics is the so-called continuity equation. In simple terms this is an expansion of Kirchhoff's current law. It says that any current imbalance at a point in space must be compensated by a change in the stored charge at that point in space. You can see the exact equation in any mid-level text on E&M.

This is how capacitors work. Current flows in but does not pass through the gap between the plates. Instead, charge is stored on the plates. It is sometimes convenient to describe this behavior in terms of displacement current through the gap, but of course no electrons actually pass between the capacitor plates.

Antennas work the same way. Any change in current along the antenna must be accompanied by a change in stored charge. The antenna acts as a capacitor. Everyone talks about high voltage at the tips of a dipole antenna, but perhaps fewer people understand there is a buildup of stored charge as well.

73,
Gene
W4SZ

JGBOYLES wrote:
>>"If you look at HOW an inductor works, the current flowing in one
>>terminal ALWAYS equals the current flowing out the other terminal."
>
>
> I think that is true. If you define current as electron flow, then the fields
> and radiation that a large coil may be subjected to, will not increase or
> decrease the number of electrons that the coil contains. As such, the amount
> of electrons entering the base of the coil, will equal the same number exiting
> the coil, with time displacement.
> Consider a large physically long capcitor, with multiple plates. One can use
> this as a loading element. There is no electron flow between plates. However
> there is "displacement" current between the plates that has no physical
> meaning. Now what? The capacitor will be just affected as a coil.
> So, from the conservation of electron flow I don't know what to believe.
>
> 73 Gary N4AST

# 1775. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-04 01:30:42 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10oj1i3lbl2pv9e@corp.supernews.com>
Source record: 87169

You have to use some care in applying the conservation of charge to a system that includes radiation or other manifestations of displacement current. Imagine a capacitor with widely spaced plates. Charge flows into one plate of the capacitor, and an equal amount of charge flows out of the other plate. You have to include both plates in the system when counting up the total amount of charge that's conserved. Similarly, in the case of a radiating coil, you have to count the charge that flows on all nearby and distant conductors as a result of the (field created by) the charge flowing on the inductor. That is, some of the charge that flows into a radiating inductor flows out of other nearby and distant conductors.

In the absence of radiation, all the charge that flows into an inductor has to flow out, a point I and (much more eloquently) Ian and others have tried to make, but which is lost on some of the most vocal contributors to the newsgroup. This concept doesn't seem to fit neatly into some of the preconceived theories, so is simply being ignored. In the end, any theory that truly explains observed phenomena has to work with physically vanishingly small inductors, for which the currents in and out must be equal, as well as larger ones.

Roy Lewallen, W7EL

JGBOYLES wrote:
>>"If you look at HOW an inductor works, the current flowing in one
>>terminal ALWAYS equals the current flowing out the other terminal."
>
>
> I think that is true. If you define current as electron flow, then the fields
> and radiation that a large coil may be subjected to, will not increase or
> decrease the number of electrons that the coil contains. As such, the amount
> of electrons entering the base of the coil, will equal the same number exiting
> the coil, with time displacement.
> Consider a large physically long capcitor, with multiple plates. One can use
> this as a loading element. There is no electron flow between plates. However
> there is "displacement" current between the plates that has no physical
> meaning. Now what? The capacitor will be just affected as a coil.
> So, from the conservation of electron flow I don't know what to believe.
>
> 73 Gary N4AST

# 1776. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-04 01:34:03 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <fGfid.61991$OD2.12386@bgtnsc05-news.ops.worldnet.att.net>
Source record: 87170

Yes, but Tom modified his statement shortly thereafter.

Are you guys actually interested in antennas, or is this just some sort
of pissing contest?

(Clearly a rhetorical question.)

73,
Gene
W4SZ

Cecil Moore wrote:

>
> Tom, W8JI claimed such in the following quote from eHam.net:
>
> "If you look at HOW an inductor works, the current flowing in
> one terminal ALWAYS equals the current flowing out the other
> terminal."
>

## 1777. Re: 32 ft end tuned vertical or??

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-04 01:54:15 UTC
From: k9sqg@aol.com
Message-ID: <20041103205415.06587.00000031@mb-m24.aol.com>
Source record: 87071

You might try feeding it with open wire line, have a tuner in the shack, and see what it does...

# 1778. Re: CATV splitter question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-04 02:27:14 UTC
From: Ed Nielsen <egnlsn@comcast.net>
Message-ID: <6sgid.461044$mD.385108@attbi_s02>
Source record: 87072
Cross-posted to: rec.radio.amateur.antenna,rec.video.cable-tv,comp.home.automation

Port to port isolation is typically in the upper teens to mid twenties, depending on manufacturer and frequency. The 90 and 130dB you see in those specs (that appears to be about the only spec they give, in addition to bandwidth) is the RFI immunity. One of the specs they don't list is the return loss. Are the 90dB ones solder backed or epoxy? Are they made utilizing a PCB design, or are the components just soldered together and stuck in the housing?

Like Richard wrote, fork out the extra couple of bucks and get some real splitters. One good place to get some is <http://www.cencom94.com/gpage.html>. They're made by CATV industry manufacturers and used by cable companies. Holland is Comcast approved and PDI is widely used by Time Warner.

CIAO!

Richard Clark wrote:
>>- 1GHz 90dB 2-Way F-Pin Splitter
>>- 1GHz 130dB 2-Way F-Pin Splitter
>>- 2GHz 90dB 2-Way F-Pin Splitter DC Passing
>
>
> DC passing would suggest that all these are rated for satellite TV
> systems (hence the high frequency rating). The dB ratings are port
> isolation (one side interfering with the other). Choose one with
> highest number (either frequency or dB or both) in anticipation of
> future needs - price is hardly an issue with these components.
>
> 73's
> Richard Clark, KB7QHC

# 1779. Re: CATV splitter question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-04 02:57:03 UTC
From: Ed Nielsen <egnlsn@comcast.net>
Message-ID: <3Ugid.42511$HA.7633@attbi_s01>
Source record: 87073
Cross-posted to: rec.radio.amateur.antenna,rec.video.cable-tv,comp.home.automation

Most cable systems are designed to provide 15-20dBmV at the tap, which equates to about 10-15dBmV at the groundblock. For safety's sake, use the lower number in your calculations.

As you've seen and others have written, a 4-way splitter loses ~7dB on each leg. The actual loss varies with the frequency. The 7dB is at 50MHz. In the 550-1000MHz bandwidth, it goes up to 8dB. Since the higher frequencies have more loss through both the cable and the passives (splitters), calculate using the loss at the high end of the spectrum, which is 5-750MHz.

10dBmV going into a 4-way splitter has (10-8=) 2dBmV at each port to go out to each outlet. RG 6 loses ~5.8dB per 100' (@750MHz), so an outlet that's 50' from the splitter loses ~2.9dB in the cable. You had only 2dBmV to begin with and the cable is attenuating it another 2.9dB, which means that you're going to have a signal level of -0.9dBmV at the outlet. Throw in another 4 for a 2-way splitter, and you're down to -4.9dBmV. Time Warner may run their systems with 20dBmV at the tap, which would, so go ahead and add 5 to the above numbers if you want. But that still leaves you with only +0.1dBmV at a 2-way splitter.

A pretty good rule of thumb is that if there are more than 3 outlets, use a 15dB gain amplifier.

Always terminate unused outlets and ports on a splitter. There's ingress and reflections to worry about.

CIAO!

Rich Gosselin wrote:

>>My two questions:
>>
>>1. Should I get a 4-way coax splitter with each output at 7dB and
>>terminate the unused output? This would leave an output free for future
>>expansion in Room 4. I saw such a splitter at Radio Shack. Is there a
>>better brand?
>
> **********
> Yes & no...if the splitter is a 1 gig splitter, it'll work. Don't use the
> 900mhz splitters...they'll work...so so...but you'll get better signal
> through the 1 gig splitter, and they are not expensive...I get them at Home
> Despots...about $5...can't remember if they are Ideal or RCA branded...you
> will probably not need any signal amps...unless your really working with a
> bad cable company. They take special care to boost their signal throughout

> their network, and really try hard (in my area with Comcast) to pump good
> signal to their users.
> **********
>
>>2. Should I terminate the cable in the unused Room 1?
>
> **********
> Always terminate unused coax ends tied to the distribution network.
> **********
>
>
> Rich
>
>

## 1780. Rabbit's ears as drivenelement in Yagi?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-04 03:20:42 UTC
From: Richard Lane <rqlhgl@ieee.org>
Message-ID: <4189a1ea$1@sys13.hou.wt.net>
Source record: 87074

Has anyone experimented with adding directors and a reflector to a TV
VHF rabbit's ears or a Terk TV5 amplified dipole?
Dick

# 1781. Re: Balun description: who is right

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-04 03:31:40 UTC
From: Tom Ring <news0000@taring.org>
Message-ID: <4189a29c$0$91012$39cecf19@news.twtelecom.net>
Source record: 87075

Richard Clark wrote:

> On Wed, 03 Nov 2004 01:17:33 GMT, "John Smith"
> <kd5yikes@mindspring.com> wrote:
>
>>In XP, I clicked Tools/Options then selected the Security tab. Unchecked the
>>"Do not allow attachments to be saved or opened..."
>
>
> Hi John,
>
> You are now standing at the edge of the abyss.
>
> 73's
> Richard Clark, KB7QHC

As someone with well over 10000 customers, I can assure you that Richard
is correct.

There was also announced today, an exploit that doesn't even need you to
click on it if you run, gasp!, Microsoft clients.

Here is the link to the story-

http://software.silicon.com/security/0,39024655,39125549,00.htm

and here is a link to the slashdot discussion of it -

http://it.slashdot.org/article.pl?sid=04/11/03/1829252&tid=172&tid=201&tid=218

I also have to admit that the exploit needs a dummy on the receiving end
to complete the circuit by having poor judgement/settings. They may be
able to write it to be better yet, though, and I'm hoping against hope, not.

tom
K0TAR

# 1782. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-04 04:30:56 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <4189ae91$1_2@127.0.0.1>
Source record: 87077

Reg Edwards wrote:
> "My patience is getting thin" was also a joke. Seems it fell flat.

Oops, sorry Reg. I'm guilty of what I accused you of.
--
73, Cecil http://www.qsl.net/w5dxp

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# 1783. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-04 04:46:47 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <4189b24a$1_4@127.0.0.1>
Source record: 87078

Tom Donaly wrote:
> Go to Tom's home page and read _everything_ he wrote about loading
> coils and come back here and tell us what he really thinks.

Once again, the argument is not about what is on Tom's web page. The
argument is about what Tom asserted in his argument with Yuri on
eHam.net. Diverting attention to his web page is just, well, an
obvious diversion of the issue.

If I say there is no God on eHam.net and don't say it on my web page
does that prove I never said it?

You said:
> Since when has anyone claimed it's impossible to make a coil that
> has a non-constant current distribution?

When was August 10, 2003:

>>RE: In Search of 'The Perfect Mobile Antenna':
>>Reply by W8JI on August 10, 2003
>>Yuri, You are like to call names, insult people, and argue rather than
>>take the time to learn basic electronics. This is in any book, including
>>the ARRL Handbook. If you look at HOW an inductor works, the current
>>flowing in one terminal ALWAYS equals the current flowing out the other
>>terminal. THE VOLTAGE can be (and is) different on each end of the inductor,
>>NOT the current.

During that argument, W8JI presented the lumped inductance in EZNEC as proof
of the above statement.
--
73, Cecil http://www.qsl.net/w5dxp

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# 1784. Re: Rabbit's ears as drivenelement in Yagi?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-04 04:57:29 UTC
From: Irv Finkleman <finkirv@shaw.ca>
Message-ID: <4189B6BD.74443AB9@shaw.ca>
Source record: 87079

Richard Lane wrote:
>
> Has anyone experimented with adding directors and a reflector to a TV
> VHF rabbit's ears or a Terk TV5 amplified dipole?
> Dick

I wouldn't be surprised to hear that it has been tried with rabbit
ears, but you would;
(1) have to adjust element lengths for each change of channel, and
(2) have to have lots of room on top of your TV set -- especially if the direction of
the
station is not ideal for your room!

On the higher channels it might not
be too bad! In addition, if you used a rotor you might end up gaussing up the screen
beyone the point of degaussing! :-)

Irv VE6BP
--
---
Diagnosed Type II Diabetes March 5 2001
Beating it with diet and exercise!
297/215/210 (to be revised lower)
58"/43"(!)/44" (already lower too!)
---
Visit my HomePage at http://members.shaw.ca/finkirv/index.html
Visit my Baby Sofia website at http://members.shaw.ca/finkirv4/index.htm
Visit my OLDTIMERS website at http://members.shaw.ca/finkirv5/index.htm
---
Irv Finkleman,
Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
Calgary, Alberta, Canada

# 1785. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-04 05:06:20 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <4189b6df_1@127.0.0.1>
Source record: 87080

Gene Fuller wrote:
> Antennas work the same way. Any change in current along the antenna must
> be accompanied by a change in stored charge.

The net (total) current on a standing-wave antenna is the phasor sum
of the forward current and reflected current and can change simply
because it is part of a standing wave. The change in net current at
the tip of a standing-wave antenna simply means that the energy has
moved from the H-field into the E-field.
--
73, Cecil http://www.qsl.net/w5dxp
"The current and voltage distributions on open-ended wire antennas are
similar to the standing wave patterns on open-ended transmission lines ...
Standing wave antennas, such as the dipole, can be analyzed as traveling
wave antennas with waves propagating in opposite directions (forward and
backward) and represented by traveling wave currents If and Ib ..."
_Antenna_Theory_, Balanis, Second Edition, Chapter 10, page 488 & 489

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# 1786. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-04 05:16:00 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <4189b922$1_4@127.0.0.1>
Source record: 87081

Roy Lewallen wrote:
> In the absence of radiation, all the charge that flows into an inductor
> has to flow out, a point I and (much more eloquently) Ian and others
> have tried to make, but which is lost on some of the most vocal
> contributors to the newsgroup. This concept doesn't seem to fit neatly
> into some of the preconceived theories, so is simply being ignored. In
> the end, any theory that truly explains observed phenomena has to work
> with physically vanishingly small inductors, for which the currents in
> and out must be equal, as well as larger ones.

What a lot of people are missing is that a relatively constant forward
current flows into the bottom of the coil and out the top. That current
is reflected from the tip of the antenna and a relatively constant
reflected current flows into the top of the coil and out the bottom.
The current at the bottom and top of the coil is the phasor sum of
those two currents and cannot help but be different for the typical
mobile bugcatcher antenna.

The net total current is the sum of those two currents and even if the
component currents are constant, their phasor sum will differ because
the phase of the component currents are changing in opposite directions
across the bugcatcher coil.

The cosine current distribution on a standing-wave antenna is just a
standing wave caused by the superposition of forward and reflected
current.

For a vanishingly small inductor, the phase shift through the inductor
is near zero and indeed results in the same current on both sides of
the inductor so the theory works just fine.
--
73, Cecil http://www.qsl.net/w5dxp
"The current and voltage distributions on open-ended wire antennas are
similar to the standing wave patterns on open-ended transmission lines ...
Standing wave antennas, such as the dipole, can be analyzed as traveling
wave antennas with waves propagating in opposite directions (forward and
backward) and represented by traveling wave currents If and Ib ..."
_Antenna_Theory_, Balanis, Second Edition, Chapter 10, page 488 & 489

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# 1787. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-04 05:21:20 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <4189ba63$1_3@127.0.0.1>
Source record: 87082

Gene Fuller wrote:
> Yes, but Tom modified his statement shortly thereafter.

Tom admitted his statement was wrong? When and where?
--
73, Cecil http://www.qsl.net/w5dxp

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# 1788. Help - with 2026

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-04 06:59:47 UTC
From: tcrewe <tcrewe@rogers.com>
Message-ID: <iOKdnaVPA40dNRTcRVn-1w@rogers.com>
Source record: 87076

I purchased a PRO-2026 Radio Shack 100 channel scanner, this came with an antenna "WINDOW MOUNT"
Now with this WINDOW MOUNT ANTENNA - through scanning, 1 only receive 5 or so staions, rest are mostly static.
Do I need to replace this antenna - or - is there a way of tuning this ?,,,,,
Or should I replace this with a different one... if so can someone reccomend one ?
THANX

# 1789. Re: Telescopic to coax adaptor?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-04 08:39:27 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <NNSjwpJ$qeiBFA$v@ifwtech.co.uk>
Source record: 87084

Dave Piggin wrote:
>> What is a 'Heath Robinson' idea? Is that something desirable?
>> Gary
>>>> Typicaly a British bit of vocabalry, meaning "Any other answer or
>>>> thing I could do to make it work" in it's simplist term. Dave d;-)
>

William Heath Robinson (1872-1944) was the first to see the humour in drawing fantastically complicated machines.

The closest translation into US English is "Rube Goldberg".

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

# 1790. Re: Balun description: who is right

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-04 10:04:25 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cmcur9$gl8$1@sparta.btinternet.com>
Source record: 87085

John and Ralph,

Thanks very much for the likely explanations. We live and learn!

Johann, the intended primary recipient, also downloaded the attachment OK.

So all's well that ends well.
---
Reg.

## 1791. Re: Help - with 2026

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-04 10:47:48 UTC
From: caskamite@hotmail.com
Message-ID: <cmd1cm$2hs$1@newsg4.svr.pol.co.uk>
Source record: 87086

plug your TV antenna in the back, if it makes a huge difference and you start to hear more, your best getting a better/higher antenna.
Little telescopic antenna or window/ mag mount, are good for close car to car comms or powerful broadcasts, but scanning is different. For the best reception you need an antenna tuned for every separate frequency and there are lots of frequencies on a scanner (impractical)
Get a ham antenna book it will show you how to build your own antenna, out of bits of wire lolly sticks and tape, at a fraction of the cost.

# 1792. Re: GMC Speedometer RF Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-04 11:43:30 UTC
From: caskamite@hotmail.com
Message-ID: <cmd4l4$7ng$1@newsg3.svr.pol.co.uk>
Source record: 87087

Someone posed that they were having a problem with RF Interference on 40 Meters
(Speedometer moves 0 to 100) some time back...

Shhhush,
A mechanics dream, you just put that key down till the mile meter, drops to 20,000 miles son...

# 1793. Re: Telescopic to coax adaptor?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-04 13:33:27 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <Gcqid.38487$QJ3.22318@newssvr21.news.prodigy.com>
Source record: 87088

Ian White, G3SEK wrote:
> Dave Piggin wrote:
>
>>> What is a 'Heath Robinson' idea? Is that something desirable?
>>> Gary
>>>
>>>>> Typicaly a British bit of vocabalry, meaning "Any other answer or
>>>>> thing I could do to make it work" in it's simplist term. Dave d;-)
>>
>>
>
> William Heath Robinson (1872-1944) was the first to see the humour in
> drawing fantastically complicated machines.
>
> The closest translation into US English is "Rube Goldberg".
>
>

Didn't he write "The Adventures of Uncle Lubin?" (My favorite
children's book.)
73,
Tom Donaly, KA6RUH

# 1794. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-04 14:05:54 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <6Hqid.838370$Gx4.249431@bgtnsc04-news.ops.worldnet.att.net>
Source record: 87089

Cecil,

You are using fightin' words, but I will play along. (I said "modified", not "wrong".)

I followed the URL quoted on Yuri's web site,

http://www.eham.net/articles/5998

It appears to me that W8JI made his first comment on this topic on August 7, 2003. The "ALWAYS" exchange with Yuri took place on August 10.

Over the next week there were numerous messages. W8JI explained how there could be a current change if the coil exhibited capacitive coupling, yada, yada, yada.

On August 17 W8JI posted a summary which clearly outlined his position. This is essentially the same position that has been detailed on his web site.

I don't care one way or the other about just how the personality battle started. You may see it differently than I do. However, it seems pretty clear, with the exception of one hyperbolic "always" comment, W8JI fully understands that the current can be different at the ends of a real-world coil.

I am not going to engage in a semantics battle with you or anyone else. If you don't agree with my interpretation that's fine with me.

73,
Gene
W4SZ

Cecil Moore wrote:
> Gene Fuller wrote:
>
>> Yes, but Tom modified his statement shortly thereafter.
>
>
> Tom admitted his statement was wrong? When and where?

# 1795. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-04 14:08:00 UTC
From: richardharrison@webtv.net
Message-ID: <17792-418A37C0-179@storefull-3255.bay.webtv.net>
Source record: 87090

Wes, N7WS wrote:
"Could you describe in more detail what the "pictures" are saying."

My edition of "Low-Band DXing" is copyrighted in 1994.

The "pictures" are graphs of current distribution on (6) different
1/4-wave vertical antennas:
1) full size
2) base loaded 1/8-wave of wire
3) capacitive hat loaded 1/8-wave
4) center loaded 1/16-wave wire above & below
5) continuously loaded (all coil) antenna
6) combined top and base loading of short vertical

The current distribution graphs are in a section (2.1) titled
"Radiation Resistance"

In every case , the current tapers lower from feedpoint end to the
loading coil`s end nearer the open end of the antenna. Devoldere
discusses the various loading methods.

Devoldere says the full size 1/4-wave vertical has a radiation
resistance of 36.6 ohms. His 50% length base loaded example has a
radiation resistance of 6.28 ohms. His top loaded example has a
radiation resistance of 18.3 ohms. His center loaded example has a
radiation resistance of 22.1 ohms

Radiation resistance is our goal. Radiation resistance versus total
resistance (radiation+loss resistances) is the antenna efficiency.

The all coil antenna has a calculated radiation resistance of 16.4 ohms.

The point is that all loading coils show less current at the top than at
the bottom because that`s the way it is, superposition.

Now that we`ve been re-Bushed, I`ve had time to answer Wes` question.

Best regards, Richard Harrison, KB5WZI

# 1796. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-04 14:32:05 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <F3rid.63829$OD2.17976@bgtnsc05-news.ops.worldnet.att.net>
Source record: 87091

Cecil,

I cannot speak directly for Tom Donaly, but you and I are about 99% in DISagreement over physics.

One more time:

Current, charge, voltage, E-field, and H-field are different physical entities. They are related, but they are not interchangeable.

No amount of E-field, H-field, or voltage can create or destroy charge. Current is the movement of charge. At any point in space that charge must either keep moving (Kirchhoff's current law) or it must be stored (continuity equation). There is absolutely no other choice, period.

Your traveling wave/standing wave model is intuitive, but otherwise useless. Many authors reference such a model, but no one seems to use it for serious calculations.

You have started quoting Balanis:

"The current and voltage distributions on open-ended wire antennas are similar to the standing wave patterns on open-ended transmission lines ... Standing wave antennas, such as the dipole, can be analyzed as traveling wave antennas with waves propagating in opposite directions (forward and backward) and represented by traveling wave currents If and Ib ..."
_Antenna_Theory_, Balanis, Second Edition, Chapter 10, page 488 & 489

I do not have easy access to the Balanis book at this time. Does he go on to actually perform antenna calculations such as actual current distributions and radiated fields? I found the table of contents for this edition of his book, and it appears that Chapter 10 is a chapter on traveling wave antennas, not basic dipoles. If so, then it is likely that Balanis is merely trying to tie the entire world of antennas together to give a warm and fuzzy feeling to the reader.

Every detailed professional treatment of antenna theory and modeling I have found starts with Maxwell's equations, and quickly gets immersed in integral equations, Green's functions, and other messy stuff. Why would people do this if the mere application of a couple of traveling waves would provide the correct answers?

Do you have a reference to an analytic treatment using the traveling wave model that could give results comparable to NEC2? If so, I would sure like to find that reference.

73,
Gene

W4SZ

Cecil Moore wrote:

> Gene Fuller wrote:
>
>> Antennas work the same way. Any change in current along the antenna
>> must be accompanied by a change in stored charge.
>
>
> The net (total) current on a standing-wave antenna is the phasor sum
> of the forward current and reflected current and can change simply
> because it is part of a standing wave. The change in net current at
> the tip of a standing-wave antenna simply means that the energy has
> moved from the H-field into the E-field.

# 1797. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-04 14:39:59 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <418a3d51$1_1@127.0.0.1>
Source record: 87092

Gene Fuller wrote:
> On August 17 W8JI posted a summary which clearly outlined his position.
> This is essentially the same position that has been detailed on his web
> site.

Point is, W8JI has never retracted his false statement.

What he has missed is that all those effects he lists affect both the
forward and reflected currents on a standing-wave antenna. The major
effect in the change in NET current is simply the superposition of
the forward and reflected waves with their differing phases from end
to end in the antenna.
--
73, Cecil http://www.qsl.net/w5dxp

----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

# 1798. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-04 15:18:07 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <PKrid.17690$6q2.16264@newssvr14.news.prodigy.com>
Source record: 87093

Gene Fuller wrote:
> Cecil,
>
> I cannot speak directly for Tom Donaly, but you and I are about 99% in
> DISagreement over physics.
>
> One more time:
>
> Current, charge, voltage, E-field, and H-field are different physical
> entities. They are related, but they are not interchangeable.
>
> No amount of E-field, H-field, or voltage can create or destroy charge.
> Current is the movement of charge. At any point in space that charge
> must either keep moving (Kirchhoff's current law) or it must be stored
> (continuity equation). There is absolutely no other choice, period.
>
> Your traveling wave/standing wave model is intuitive, but otherwise
> useless. Many authors reference such a model, but no one seems to use it
> for serious calculations.
>
> You have started quoting Balanis:
>
> "The current and voltage distributions on open-ended wire antennas are
> similar to the standing wave patterns on open-ended transmission lines ...
> Standing wave antennas, such as the dipole, can be analyzed as traveling
> wave antennas with waves propagating in opposite directions (forward and
> backward) and represented by traveling wave currents If and Ib ..."
> _Antenna_Theory_, Balanis, Second Edition, Chapter 10, page 488 & 489
>
>
> I do not have easy access to the Balanis book at this time. Does he go
> on to actually perform antenna calculations such as actual current
> distributions and radiated fields? I found the table of contents for
> this edition of his book, and it appears that Chapter 10 is a chapter on
> traveling wave antennas, not basic dipoles. If so, then it is likely
> that Balanis is merely trying to tie the entire world of antennas
> together to give a warm and fuzzy feeling to the reader.
>
> Every detailed professional treatment of antenna theory and modeling I
> have found starts with Maxwell's equations, and quickly gets immersed in
> integral equations, Green's functions, and other messy stuff. Why would
> people do this if the mere application of a couple of traveling waves
> would provide the correct answers?
>

> Do you have a reference to an analytic treatment using the traveling
> wave model that could give results comparable to NEC2? If so, I would
> sure like to find that reference.
>
> 73,
> Gene
> W4SZ
>
> Cecil Moore wrote:
>
>> Gene Fuller wrote:
>>
>>> Antennas work the same way. Any change in current along the antenna
>>> must be accompanied by a change in stored charge.
>>
>>
>>
>> The net (total) current on a standing-wave antenna is the phasor sum
>> of the forward current and reflected current and can change simply
>> because it is part of a standing wave. The change in net current at
>> the tip of a standing-wave antenna simply means that the energy has
>> moved from the H-field into the E-field.
>
>

As usual, Cecil is very selective of his quotes. Balanis uses a
highly mathematical approach in most of his book, supplemented by
many graphs and charts. Cecil's quote, like his quote of Tom Rauch
on loading coils is only a very small part of the total.
73,
Tom Donaly, KA6RUH

# 1799. Re: Looking for TA33 or TA32

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-04 15:28:15 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <GoWdnaB31-Yd1xfcRVn-uw@comcast.com>
Source record: 87094

"Pasquale IW0HEX" <iw0hex@email.it> wrote in message
news:30f47a04.0411030038.17628cd8@posting.google.com...
> Hi
> I'm an italian HAM op., Mr Pasquale IW0HEX. I live in Rome.
> I'm looking for Mosley TA33-JR (3 elements) or TA32-JR (2 elements)
> yagis beam tribands (10,15 and 20 meters)
> Anybody can help me ?
> Tnx in advance.
> 73s Pasquale IW0HEX

Pascuale,

I had a TA33JR a few years ago. When I installed a 20 meter dipole as a test some years later, I found the dipole had more gain than the 33JR on paths over about 2000 KM. The dipole was about 2 - 3 meters higher. From W2 to eastern Europe, the difference was consistently over an S unit. From W2 to Florida they were about even, but the direction of the dipole was not optimum. I now have a Hygain TH3.

Tam/WB2tt

# 1800. Re: Ground rod or water pipe?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-04 15:34:30 UTC
From: richardharrison@webtv.net
Message-ID: <7898-418A4C06-195@storefull-3253.bay.webtv.net>
Source record: 87095

Ruben Undheim wrote:
"Should I use the water pipe system as a ground, or should I use a thick wire dowen to a ground rod?"

A 20M dipole needs no RF ground. It may get a lightning surge in search of ground, a path to the earth.

To dissipate the surge to earth it is advantageous to use the same path as the radio power supply takes to earth, not to create a big potential difference within the radio.

As the power service to the radio may have a high RF impedance, which would also oppose a surge, it is a good idea to also connect the thick wire down to a ground rod.

Arc-gaps between the antenna feeders and the radio case may encourage a surge to take the direct path to earth. The radio case must also be connected to the electrical ground and the new ground rod at this point (perhaps your shack).

All earth grounds must be connected together using approved connectors to satisfy most electrical codes and to avoid differences of potential between earth connections. Voltages and currents can be so large that solder can melt. Welding or specified connectors are required.

If lightning takes the direct route to the earth via the arc-gaps, there will be less stress on the electrical system.

Best regards, Richard Harrison, KB5WZI

# 1801. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-04 16:48:04 UTC
From: richardharrison@webtv.net
Message-ID: <24089-418A5D44-224@storefull-3258.bay.webtv.net>
Source record: 87096

Gene, W4SZ wrote:
"Do you have a reference to an analytic treatment using the traveling wave model that could give results comparable to NEC2?"

NEC2 must agree with reality else it is worthless.

Terman agrees with Balanis and is only wrong when theory is revoked.
Terman says on page 866 of his 1955 edition:
"A wire antenna is a circuit with distributed constants; hence the current distribution in a wire antenna that results from the application of a localized voltage follows the principles discussed in Chap. 4, and depends upon the antenna length, measured in wavelengths; the terminations at the ends of the antenna wire; and the losses in the system. The current distribution is also affected by the ratio of wire length to diameter in situations where the antenna is unusually thick. (see Kraus, Schelknoff, and Friis) Under most circumstances, the losses are sufficiently low and the ratio of wire length to diameter sufficiently great so that to a first approximation the current distribution can be taken as that for a line with zero losses; it then has the characteristics discussed in Sec. 4-5."

Sec. 4-5 is titled: "The Effect of Attenuation on Voltage and Current Distribution - Lossless Lines" This is in Chapter 4, "Transmission Lines".

Best regards, Richard Harrison, KB5WZI

## 1802. Re: Telescopic to coax adaptor?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-04 18:25:57 UTC
From: Jack Painter <223bthp@cox.net>
Message-ID: <Zuuid.1$uT4.0@lakeread03>
Source record: 87097

"Mike Spence" <mike.s.spence@btopenworld.com> wrote
> Is there a recognised way to connect a radio that just has a
> telescopic aerial to a coax cable so that an external aerial can be
> used?

Mike, a receiver that does not provide for external antenna connection, will probably not benefit from forcing the input of one. The front end design of many portables uses double-conversion only, this allows for reception of fairly weak signals from the provided whip antenna. But it does not always bode well when powerful inputs such as an external antenna can provide, overloading the little portables and making it more difficult to discern between stations close to each other. Recommend you use your portable for what it was intended for, and look into adding a tabletop receiver if you want to input external antenna feed.

Best regards,

Jack Painter
Virginia Beach VA

# 1803. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-04 18:34:50 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <eDuid.64461$OD2.19994@bgtnsc05-news.ops.worldnet.att.net>
Source record: 87098

Richard,

What in the world are you babbling about????

Nothing I wrote conflicts with Terman or Balanis. Did you see a ghost message from me that I did not write?

73,
Gene
W4SZ

Richard Harrison wrote:
> Gene, W4SZ wrote:
> "Do you have a reference to an analytic treatment using the traveling
> wave model that could give results comparable to NEC2?"
>
> NEC2 must agree with reality else it is worthless.
>
> Terman agrees with Balanis and is only wrong when theory is revoked.
> Terman says on page 866 of his 1955 edition:
> "A wire antenna is a circuit with distributed constants; hence the
> current distribution in a wire antenna that results from the application
> of a localized voltage follows the principles discussed in Chap. 4, and
> depends upon the antenna length, measured in wavelengths; the
> terminations at the ends of the antenna wire; and the losses in the
> system. The current distribution is also affected by the ratio of wire
> length to diameter in situations where the antenna is unusually thick.
> (see Kraus, Schelknoff, and Friis) Under most circumstances, the losses
> are sufficiently low and the ratio of wire length to diameter
> sufficiently great so that to a first approximation the current
> distribution can be taken as that for a line with zero losses; it then
> has the characteristics discussed in Sec. 4-5."
>
> Sec. 4-5 is titled: "The Effect of Attenuation on Voltage and Current
> Distribution - Lossless Lines" This is in Chapter 4, "Transmission
> Lines".
>
> Best regards, Richard Harrison, KB5WZI
>

# 1804. Re: Dynamic dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-04 18:40:10 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <cmdt7e$2k8$1@newshost.mot.com>
Source record: 87103

I think I know what that is...or have a suitable substitute...
73,
--
Steve N, K,9;d, c. i My email has no u's.

"Floyd Sense" <fsense@copper.net> wrote in message
news:418810a3_1@newsfeed.slurp.net...
> I usually cut the dipole several feet too long, run the end through the
> insulator, then tie the end back to the wire using a copper "split nut".
I
> can then tune the antenna to resonance by loosening the split nut and
moving
> the ends as required.
>
> K8AC
>
> "Johann H�chtl" <johann.hoechtl@myrealbox.com> wrote in message
> news:4187ed86$0$17936$91cee783@newsreader01.highway.telekom.at...
> >I constructed a dipole. Adjusting the swr requires me to shorten the
ends.
> >As it is meant for "semi-mobile" use it will eventually become to short.
> >
> > I do not want to replace the wire after a short time. Is it possible to
> > bend the ends back a bit. If so, can i fix this bent ends using electric
> > tape or cable tie?
> >
> > Greetings,
> > Johann
>
>

# 1805. Re: Help designing trap dipole - ARRL Antenna book no help!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-04 18:45:54 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <cmdti6$2l4$1@newshost.mot.com>
Source record: 87102

"Ken Bessler" <kg0wx@NOSPAMyahoo.com> wrote in message
news:jEZhd.41398$lp6.36622@okepread01...
>
>
> That's basically what I did. I ran into an interesting issue tuning
> the 75m portion - as I cut the antenna in shorter and shorter
> increments as I approached my design freq, something wierd
> happened - I was at 3.844 and cut 12" off each end which got
> me 3.868. I cut another 6" and got 3.860? At that point I stopped
> cutting. My traps were designed for 3.890 but I had no way to
> measure them.
>
> Why did trimming 6" lower my resonant freq 8 kHz? I'm guessing
> but could my traps be closer to 3.86 than 3.89? I'm afraid to cut
> more.
>
> Here are the results I got:
>
> Band 2:1 SWR range Bandwidth Center Best SWR
> 160 1.862-2.040 0.178 1.951.0 1.0:1
> 80 3.759-3.916 0.157 3.837.5 1.0:1
>
> Ken KG0WX

Well, I don't know what you used to measure, but don't discount measurement
accuracy.

The results speak for themselves.
73
--
Steve N, K,9;d, c. i My email has no u's.

# 1806. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-04 18:58:22 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <d4uko0tfurq6hvkq3d4qnqf6rupset8rcb@4ax.com>
Source record: 87099

On Thu, 4 Nov 2004 08:08:00 -0600, richardharrison@webtv.net (Richard Harrison) wrote:

>Devoldere says the full size 1/4-wave vertical has a radiation
>resistance of 36.6 ohms. His 50% length base loaded example has a
>radiation resistance of 6.28 ohms. His top loaded example has a
>radiation resistance of 18.3 ohms. His center loaded example has a
>radiation resistance of 22.1 ohms

Hi Richard,

This material has all the hallmarks of pencil whipping. The radiation resistance of an antenna is NOT necessarily the same as its drivepoint impedance at resonance. Without expressing the size of the radiator in each of the examples above, I am forced to consider that the reason for such loading examples is that the structure is significantly smaller than a quarterwave. I say this principally due to the inference of one line:
> His 50% length base loaded example
If we are speaking of a 1/8th wave tall radiator under different loading conditions, then it follows that the "radiation resistance" is incorrectly applied to drivepoint Z with a forced resonance due to loading.

Similar pencil whipping occurs when discussion centers on folded antennas that purport to raise "radiation resistance" when in fact they are simply raising drive Z. The argument in that vein generally plods on that even so, efficiency is raised. Then the argument is dashed in that the loss resistance is ALSO raised by the same mechanism and the efficiency either suffers by comparison, or at best breaks even.

This is the bane of loading, it introduces new sources of loss in comparison to the native "radiation resistance" that is unaltered by their inclusion.

73's
Richard Clark, KB7QHC

# 1807. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-04 19:20:53 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <418a7c50$1_4@127.0.0.1>
Source record: 87100

Gene Fuller wrote:
> I cannot speak directly for Tom Donaly, but you and I are about 99% in
> DISagreement over physics.

That's just a straw man, Gene. You school and my school probably taught 99% the same physics. You and I are not that far apart at all. THERE ARE NO CONTRADICTIONS BETWEEN THE PHYSICS YOU USE AND THE CONCEPTS I AM PRESENTING. It only appears that way to you because you haven't taken the time to understand those concepts.

Are there standing waves on a standing wave antenna? Are standing waves caused by the superposition of forward and reflected waves? Absolutely nothing new or different there.

> Current, charge, voltage, E-field, and H-field are different physical
> entities. They are related, but they are not interchangeable.

Straw man alert! I resent any implication that I said they were interchangeable. I agree with you about the above quantities.

> No amount of E-field, H-field, or voltage can create or destroy charge.

Straw man alert! I resent any implication that I said charge could be destroyed. I agree with what you said about charge.

> Current is the movement of charge. At any point in space that charge
> must either keep moving (Kirchhoff's current law) or it must be stored
> (continuity equation). There is absolutely no other choice, period.

EXACTLY! And that is exactly what you and W8JI are missing. The familiar cosine current distribution on a dipole is a standing wave, i.e. the net current in that standing wave is not moving. Therefore, the net current doesn't obey your rules above. The net current is just an artifact of superposition of the forward current wave with the reflected current wave. It is the forward current and reflected current that is moving. Until you and Tom understand the nature of standing-wave antennas, you will never understand the nature of the current(s) through a loading coil installed in the middle of a standing wave antenna.

Kurt N. Sterba made the same mistake in this month's Worldradio article. In a standing-wave antenna, the net current doesn't flow and RF current cannot stand still. The current is zero at the tip of a standing wave antenna not because all the energy has been radiated and/or conducted away by displacement currents. The current is zero because all the energy at that point is contained in the E-field. The forward H-field and the reflected H-field cancel each other at the tip of a standing wave antenna. If you really think there is zero energy at the tip of

a mobile antenna, please grab it while power is applied.

> Your traveling wave/standing wave model is intuitive, but otherwise
> useless.

Until you take the time to conceptually understand standing wave antennas, there is absolutely no chance of you understanding what happens when a loading coil is inserted in a standing wave antenna.

> If so, then it is likely
> that Balanis is merely trying to tie the entire world of antennas
> together to give a warm and fuzzy feeling to the reader.

If what Balanis said is false, please present some proof.

> Do you have a reference to an analytic treatment using the traveling
> wave model that could give results comparable to NEC2? If so, I would
> sure like to find that reference.

There are some problems that do not lend themselves very well to a quantitative analysis. That's why simulation modeling is so popular with antennas and Blackjack.

However, the difficulty of a quantitative analysis should not turn your brain into concrete such that you reject the associated qualitative analysis. All of these qualitative concepts are presented in textbooks. I have only quoted a handful of them.
--
73, Cecil, W5DXP

# 1808. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-04 19:34:46 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <qvvid.839801$Gx4.29275@bgtnsc04-news.ops.worldnet.att.net>
Source record: 87105

Cecil,

There is complete contradiction between the physics you have concocted
and the real world.

I perfectly understand your concepts. They are great for explanations
and handwaving, but little else.

Until you understand the basics of the first few chapters in any physics
(E&M) textbook there is no hope for agreement. Little more for me to say.

73,
Gene
W4SZ

Cecil Moore wrote:
> Gene Fuller wrote:
>
>> I cannot speak directly for Tom Donaly, but you and I are about 99% in
>> DISagreement over physics.
>
>
> That's just a straw man, Gene. You school and my school probably
> taught 99% the same physics. You and I are not that far apart at
> all. THERE ARE NO CONTRADICTIONS BETWEEN THE PHYSICS YOU USE AND
> THE CONCEPTS I AM PRESENTING. It only appears that way to you
> because you haven't taken the time to understand those concepts.
>
> Are there standing waves on a standing wave antenna? Are standing
> waves caused by the superposition of forward and reflected waves?
> Absolutely nothing new or different there.
>
>> Current, charge, voltage, E-field, and H-field are different physical
>> entities. They are related, but they are not interchangeable.
>
>
> Straw man alert! I resent any implication that I said they were
> interchangeable. I agree with you about the above quantities.
>
>> No amount of E-field, H-field, or voltage can create or destroy charge.
>
>
> Straw man alert! I resent any implication that I said charge could
> be destroyed. I agree with what you said about charge.
>
>> Current is the movement of charge. At any point in space that charge

>> must either keep moving (Kirchhoff's current law) or it must be stored
>> (continuity equation). There is absolutely no other choice, period.
>
>
> EXACTLY! And that is exactly what you and W8JI are missing. The familiar
> cosine current distribution on a dipole is a standing wave, i.e. the net
> current in that standing wave is not moving. Therefore, the net current
> doesn't obey your rules above. The net current is just an artifact of
> superposition of the forward current wave with the reflected current
> wave. It is the forward current and reflected current that is moving.
> Until you and Tom understand the nature of standing-wave antennas, you
> will never understand the nature of the current(s) through a loading
> coil installed in the middle of a standing wave antenna.
>
> Kurt N. Sterba made the same mistake in this month's Worldradio article.
> In a standing-wave antenna, the net current doesn't flow and RF current
> cannot stand still. The current is zero at the tip of a standing wave
> antenna not because all the energy has been radiated and/or conducted
> away by displacement currents. The current is zero because all the
> energy at that point is contained in the E-field. The forward H-field
> and the reflected H-field cancel each other at the tip of a standing
> wave antenna. If you really think there is zero energy at the tip of
> a mobile antenna, please grab it while power is applied.
>
>> Your traveling wave/standing wave model is intuitive, but otherwise
>> useless.
>
>
> Until you take the time to conceptually understand standing wave
> antennas, there is absolutely no chance of you understanding what
> happens when a loading coil is inserted in a standing wave antenna.
>
>> If so, then it is likely that Balanis is merely trying to tie the
>> entire world of antennas together to give a warm and fuzzy feeling to
>> the reader.
>
>
> If what Balanis said is false, please present some proof.
>
>> Do you have a reference to an analytic treatment using the traveling
>> wave model that could give results comparable to NEC2? If so, I would
>> sure like to find that reference.
>
>
> There are some problems that do not lend themselves very well to a
> quantitative analysis. That's why simulation modeling is so popular with
> antennas and Blackjack.
>
> However, the difficulty of a quantitative analysis should not turn your
> brain into concrete such that you reject the associated qualitative

> analysis. All of these qualitative concepts are presented in textbooks.
> I have only quoted a handful of them.
> --
> 73, Cecil, W5DXP

# 1809. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-04 19:36:57 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <418a8014$1_4@127.0.0.1>
Source record: 87101

Richard Harrison wrote:

> "A wire antenna is a circuit with distributed constants;

Terman, Kraus, Balanis, ... what do they know? :-)

Apparently, a lot of the otherwise knowledgeable people on this newsgroup have forgotten that the formula for the characteristic impedance of a single-wire transmission line is 138*log(4h/d) where h is the height of the wire above ground and d is the diameter of the wire. There's no difference between that single-wire transmission line and a lot of ham antennas. That single-wire transmission line radiates just like an antenna.

1/2WL of #16 wire 24 feet in the air has a Z0 of 600 ohms.

If that center-fed dipole were terminated at each end with a 600 ohm load, it would be a traveling-wave antenna with a feedpoint impedance of 600 ohms. Take away the loads and there's a match to 50 ohm coax at the feedpoint.

The only difference in those two antennas is that removing the loads turned the antenna into a standing-wave antenna and reflections are arriving back at the feedpoint, lowering the feedpoint impedance.

Any coil installed in a standing wave antenna is going to be subjected to both forward and reflected currents. There is no hope of understanding the current in a loading coil without understanding the component currents flowing both directions through the loading coil.
--
73, Cecil, W5DXP

# 1810. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-04 19:40:17 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <418a80dd$1_3@127.0.0.1>
Source record: 87104

Gene Fuller wrote:
> Nothing I wrote conflicts with Terman or Balanis.

And nothing I wrote conflicts with your physics.
--
73, Cecil, W5DXP

# 1811. Re: Ground rod or water pipe?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-04 19:55:32 UTC
From: Ruben Undheim <saltmakrell@hotmail.com>
Message-ID: <418a9744@news.wineasy.se>
Source record: 87112

Thanks for all the help! It feels good to clear things up!

Regards
Ruben

"Ruben Undheim" <saltmakrell@hotmail.com> skrev i melding
news:4188cc35$1@news.wineasy.se...
> Hello
>
> I have my shack on the second floor, about 8 meters above ground. I am
going
> to use a dipole antenna for 20M
> Should I use the water pipe system as ground, or should I use a thick wire
> on the housewall down to a ground rod?
> I fear that the wire down to the ground rod may emit unwanted RF (have
read
> that somewhere).
>
>
> Regards
> Ruben
>
>

# 1812. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-04 20:03:59 UTC
From: richardharrison@webtv.net
Message-ID: <7898-418A8B2F-241@storefull-3253.bay.webtv.net>
Source record: 87108

Richard Cl;ark wrote:
"The radiation resistance of an antenna is NOT necessarily the same as the drivepoint impedance of the antenna."

True, but for many resonant antennas they are identical.

Fundamentally, the radiation resistance is the value when inserted in series with an antenna will consume the same power as that radiated. Unless otherwise specified, the radiation resistance is referred to a current maximum point in an ungrounded antenna, and to the base of a grounded antenna. See 1955 Terman page 890 and 1950 Kraus page 143. They agree.

All of ON4UN`s loaded antennas have maximum current at their drivepoints and they are resonant, so their feedpoint resistance coincides with their radiation resistance in all the instances diagrammed in the current distribution chart for short loaded verticals. ON4UN starts with 1A current to the base of all antennas and the current declines from that value. Its value is the cosine of the number of degrees from the feedpoint in most cases.

Best regards, Richard Harrison, KB5WZI

# 1813. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-04 20:08:29 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <418a8778$1_3@127.0.0.1>
Source record: 87106

Gene Fuller wrote:
> There is complete contradiction between the physics you have concocted
> and the real world.

That's simply a false statement and your agenda seems to
be personal rather than technical. Whose sacred cow am
I goring?

I say there are standing waves on a standing wave antenna.
You disagree "completely" with everything I say. So, Gene,
please prove that standing waves are absent on a standing
wave antenna. After that, please explain why they are
called "standing wave" antennas. Also explain why you
think Terman, Kraus, and Balanis are wrong in their
explanations of how standing waves exist on standing
wave antennas.
--
73, Cecil, W5DXP

# 1814. Re: Balun description: who is right

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-04 20:12:39 UTC
From: John Smith <kd5yikes@mindspring.com>
Message-ID: <X2wid.17355$KJ6.10899@newsread1.news.pas.earthlink.net>
Source record: 87107

"Tom Ring" <news0000@taring.org> wrote in message
news:4189a29c$0$91012$39cecf19@news.twtelecom.net...
> Richard Clark wrote:
>
>> On Wed, 03 Nov 2004 01:17:33 GMT, "John Smith"
>> <kd5yikes@mindspring.com> wrote:
>>
>>>In XP, I clicked Tools/Options then selected the Security tab. Unchecked
>>>the "Do not allow attachments to be saved or opened..."
>>
>>
>> Hi John,
>>
>> You are now standing at the edge of the abyss.
>>
>> 73's
>> Richard Clark, KB7QHC
>
> As someone with well over 10000 customers, I can assure you that Richard
> is correct.
>
> There was also announced today, an exploit that doesn't even need you to
> click on it if you run, gasp!, Microsoft clients.
>
> Here is the link to the story-
>
> http://software.silicon.com/security/0,39024655,39125549,00.htm
>
> and here is a link to the slashdot discussion of it -
>
> http://it.slashdot.org/article.pl?sid=04/11/03/1829252&tid=172&tid=201&tid=218
>
> I also have to admit that the exploit needs a dummy on the receiving end
> to complete the circuit by having poor judgement/settings. They may be
> able to write it to be better yet, though, and I'm hoping against hope,
> not.
>
> tom
> K0TAR

Thanks, Richard and Tom, for your concern. I forgot to say that I
immediately turned that feature back on.

I also use Poptray to examine any mail before actually downloading with OE.
It's amazing how easy it is to spot unwanted emails.

73,
John

# 1815. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-04 20:25:58 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <7p3lo0durs01ksfek69k3hjqa2fu9410fq@4ax.com>
Source record: 87109

On Thu, 4 Nov 2004 14:03:59 -0600, richardharrison@webtv.net (Richard Harrison) wrote:

>All of ON4UN`s loaded antennas have maximum current at their drivepoints
>and they are resonant, so their feedpoint resistance coincides with
>their radiation resistance in all the instances diagrammed in the
>current distribution chart for short loaded verticals.

Hi Richard,

My point is that this does not follow. The drivepoint Z is NOT the "radiation resistance" irrespective of loading transformation. You can build a very small radiator, load it to resonance and it offers extremely poor efficiency. Examples abound.

73's
Richard Clark, KB7QHC

# 1816. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-04 20:50:29 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10ol5gq4hd73ob5@corp.supernews.com>
Source record: 87111

Arguing about the "true" meaning of radiation resistance is pointless. If you'll look through various respected texts and references, you'll see that it's used by different authors in different ways. (I posted some specific examples quite a long time ago on this newsgroup -- I'll find and repost if anyone is interested.) Some authors refer it to a current loop; others use it to describe the feedpoint resistance, at resonance or not. In "folded" antennas, it can mean either the "unfolded" resistance or the transformed feedpoint resistance. The only common thread in usage is that it always represents a sink for the power which is radiated, so this is the only "true" meaning of the term. The greatest danger in being careless about usage is in blindly using some formula such as a common one for efficiency, Efficiency = Rr / (Rr + Rl). This works only if Rr and Rl are referred to the same point. For example, if used for a folded dipole or unipole, both Rr and Rl must be as measured at the feedpoint, where they're both transformed by the "folding" process; or both defined as properties of the unfolded antenna. Using the "folded" value of one and "unfolded" value of the other leads to incorrect conclusions about efficiency -- conclusions which been successfully used to sell antennas.

A given antenna doesn't have a single "inherent" or "fundamental" value of radiation resistance -- it's different at every point along an antenna, and the term can be legitimately used to describe the radiation "loss" component at any point. So whenever there's a chance of misunderstanding, it's important to say exactly what you mean by "radiation resistance" -- that is, where on the antenna this equivalent resistance is -- whenever you use the term.

Roy Lewallen, W7EL

Richard Harrison wrote:
> Richard Cl;ark wrote:
> "The radiation resistance of an antenna is NOT necessarily the same as
> the drivepoint impedance of the antenna."
>
> True, but for many resonant antennas they are identical.
>
> Fundamentally, the radiation resistance is the value when inserted in
> series with an antenna will consume the same power as that radiated.
> Unless otherwise specified, the radiation resistance is referred to a
> current maximum point in an ungrounded antenna, and to the base of a
> grounded antenna. See 1955 Terman page 890 and 1950 Kraus page 143. They
> agree.
>
> All of ON4UN`s loaded antennas have maximum current at their drivepoints

> and they are resonant, so their feedpoint resistance coincides with
> their radiation resistance in all the instances diagrammed in the
> current distribution chart for short loaded verticals. ON4UN starts with
> 1A current to the base of all antennas and the current declines from
> that value. Its value is the cosine of the number of degrees from the
> feedpoint in most cases.
>
> Best regards, Richard Harrison, KB5WZI
>

# 1817. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-04 20:57:51 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <418a930a$1_3@127.0.0.1>
Source record: 87110

Richard Clark wrote:
> The drivepoint Z is NOT the
> "radiation resistance" irrespective of loading transformation. You
> can build a very small radiator, load it to resonance and it offers
> extremely poor efficiency.

The ARRL Antenna Book says the feedpoint impedance of an
8 foot center-loaded mobile antenna on 80m is 22 ohms
while the radiation resistance is 0.8 ohms.
--
73, Cecil, W5DXP

# 1818. Use a Pool Cage As An Antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-04 21:09:09 UTC
From: w9zr@aol.com
Message-ID: <20041104160909.11401.00000119@mb-m29.aol.com>
Source record: 87113

I live in an antenna restricted area but have a large grounded aluminum pool cage that I am thinking about trying to use as an antenna. It is about 30 ft by 30 ft and 20 feet high. I checked with an ohmeter and all the aluminum support members appear to be well connected to each other.

Not wanting to reinvent the wheel , has anyone attempted to do this? If so how did you go about feeding it?

I had been thinking about a shunt feed arrangement for 30 or 40 meters as a starting point.

Any ideas?

73 Randy

# 1819. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-04 23:12:44 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cmed1c$qr3$1@sparta.btinternet.com>
Source record: 87114

> The ARRL Antenna Book says the feedpoint impedance of an
> 8 foot center-loaded mobile antenna on 80m is 22 ohms
> while the radiation resistance is 0.8 ohms.

==========

Cec,

There you (in the plural) go again - using handbooks as bibles.

Written by technically ill-educated amateurs and professionals, no different from yourselves, who can't agree on ANYTHING beyond V=I/R.

These threads sure have entertainment value. Not quite hilarious, too serious, but well worth a speed-read, ;o)

Cec, I'm on deep red, South African Western Cape, Pinotage-Shiraz tonight. You should try some. Makes a change from Californian, Texan and John Wayne, six-shooter politics.

---

Yours, Reg, G4FGQ

# 1820. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-04 23:40:18 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <418abbf3$1_4@127.0.0.1>
Source record: 87115

Tom Donaly wrote:
> Balanis uses a
> highly mathematical approach in most of his book, supplemented by
> many graphs and charts. Cecil's quote, like his quote of Tom Rauch
> on loading coils is only a very small part of the total.

You want me to quote the total Balanis book?????? Why don't you,
instead, just pick one subject upon which you think you and I
disagree, and discuss it. The only thing I know for sure that
you and I disagree on is the current at each end of a bugcatcher
coil.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

# 1821. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-04 23:51:44 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <418abea1$1_5@127.0.0.1>
Source record: 87116

Reg Edwards wrote:
> There you (in the plural) go again - using handbooks as bibles.

Nope, not a bible, just a quote with which I didn't even say I
agreed (or not). But ~4% efficiency sounds about right for
an 8 foot center-loaded mobile antenna on 75m.

> Cec, I'm on deep red, South African Western Cape, Pinotage-Shiraz tonight.
> You should try some. Makes a change from Californian, Texan and John Wayne,
> six-shooter politics.

I'm chugging Franzia Merlot while cleaning my Colt Python .357 Magnum
and Winchester 30-30 Lever-Action Carbine. :-)
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

## 1822. test

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-05 01:45:57 UTC
From: w9zr@aol.com
Message-ID: <20041104204557.12369.00000096@mb-m28.aol.com>
Source record: 87117

test

# 1823. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-05 02:33:25 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10olpjo4iu5ih40@corp.supernews.com>
Source record: 87118

Forgotten? How can we forget a "fact" we learned wasn't true in the first place?

According to the many references I have, the equation you quote is a simplified equation that's valid for a single wire over a perfect conducting ground plane, where the height is a very small fraction of a wavelength (i.e., radiation is negligible). Even when you ignore the relatively poor conductivity and the permittivity of real ground, the equation is certainly not valid if the wire is high enough for significant radiation to take place. There are several reasons for this:

1. The field shapes become different from the shapes assumed in deriving the equation.
2. Radiation would make the impedance complex rather than purely real.
3. The voltage between the conductor and ground depends on the path taken to measure it, so "characteristic impedance" takes on a whole different meaning, if it has any at all in this context.

There is, of course, also the problem of ignoring the finite conductivity of real ground, which will likewise impact the angle of the impedance.

It's surely tempting to take a nice, simplistic equation like this and build from it a whole theory of how things work. The seductive thing about it is that it seems to work, sort of, for some special applications. But it's a house of cards, and is at its root based on invalid assumptions. So all the wonderful theories that follow from it are fatally flawed and not to be trusted.

As apparently the only person on this newsgroup to have "learned" this "fact", it would serve you well to un-learn it. That is, if you're really interested in discovering how things really work rather than clinging to possibly mistaken notions about how they do.

Roy Lewallen, W7EL

Cecil Moore wrote:
>
> Apparently, a lot of the otherwise knowledgeable people
> on this newsgroup have forgotten that the formula for
> the characteristic impedance of a single-wire transmission
> line is 138*log(4h/d) where h is the height of the wire
> above ground and d is the diameter of the wire. There's
> no difference between that single-wire transmission line
> and a lot of ham antennas. That single-wire transmission
> line radiates just like an antenna.

>
> 1/2WL of #16 wire 24 feet in the air has a Z0 of 600 ohms.
>
> If that center-fed dipole were terminated at each end with
> a 600 ohm load, it would be a traveling-wave antenna with
> a feedpoint impedance of 600 ohms. Take away the loads and
> there's a match to 50 ohm coax at the feedpoint.
>
> The only difference in those two antennas is that removing
> the loads turned the antenna into a standing-wave antenna
> and reflections are arriving back at the feedpoint, lowering
> the feedpoint impedance.
>
> Any coil installed in a standing wave antenna is going to
> be subjected to both forward and reflected currents. There
> is no hope of understanding the current in a loading coil
> without understanding the component currents flowing both
> directions through the loading coil.
> --
> 73, Cecil, W5DXP

# 1824. Using a Pool Cage As an Antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-05 02:34:20 UTC
From: w9zr@aol.com
Message-ID: <20041104213420.16189.00000057@mb-m02.aol.com>
Source record: 87119

Has anyone tried using an aluminum pool cage as an antenna? If so , how did you feed it?

My cage is 30 ft by 30 ft and about 20 feet high. It is grounded with several ground rods and all the aluminum supports appear to be well connected with one another.

I am thinking about shunt feeding it on 20 and and 40 meters.

Ideas?

73 Randy

# 1825. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-05 02:36:34 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cmeovi$9qm$1@titan.btinternet.com>
Source record: 87120

Radiation Resistance.

Roy, what an excellent, well needed exposition, in plain English, addressed mainly to professionals who should know better, and are guilty (dare I say it) of obtaining money under false pretences.

You omitted only "DISTRIBUTED radiation resistance", a term essential to but absent from this newsgroup. It's probably also absent from Terman and Kraus, the latter I have never read. It's an aid to clear logical thought.

It should be used whenever radiation resistance is compared with conductor resistance, inductance, capacitance, etc., of elongated wires and loading coils.

As an example, it so happens that the distributed, end-to-end, radiation resistance, Rd, of a half-wave diopole is exactly twice (easily proved) the feedpoint resistance of around 72 ohms.

The radiating efficiency of a half-wave dipole is then, very simply and accurately -

Efficiency = 144 / ( 144 + overall HF conductor resistance )

although some old-wives may wish to argue about it on the grounds that it's far too simple.
----
Reg, G4FGQ

# 1826. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-05 03:38:35 UTC
From: Wes Stewart <n7ws_@_yahoo.com>
Message-ID: <mirlo0la9uiu4aumpinobjluqtp469bqvc@4ax.com>
Source record: 87021

On Thu, 04 Nov 2004 18:58:22 GMT, Richard Clark <kb7qhc@comcast.net>
wrote:

|On Thu, 4 Nov 2004 08:08:00 -0600, richardharrison@webtv.net (Richard
|Harrison) wrote:
|
|>Devoldere says the full size 1/4-wave vertical has a radiation
|>resistance of 36.6 ohms. His 50% length base loaded example has a
|>radiation resistance of 6.28 ohms. His top loaded example has a
|>radiation resistance of 18.3 ohms. His center loaded example has a
|>radiation resistance of 22.1 ohms
|
|Hi Richard,
|
|This material has all the hallmarks of pencil whipping. The radiation
|resistance of an antenna is NOT necessarily the same as its drivepoint
|impedance at resonance.

True.

|Without expressing the size of the radiator
|in each of the examples above, I am forced to consider that the reason
|for such loading examples is that the structure is significantly
|smaller than a quarterwave. I say this principally due to the
|inference of one line:
|> His 50% length base loaded example

True.

|If we are speaking of a 1/8th wave tall radiator under different
|loading conditions, then it follows that the "radiation resistance" is
|incorrectly applied to drivepoint Z with a forced resonance due to
|loading.

I don't believe that Devoldere incorrectly infers this.
|
|Similar pencil whipping occurs when discussion centers on folded
|antennas that purport to raise "radiation resistance" when in fact
|they are simply raising drive Z. The argument in that vein generally
|plods on that even so, efficiency is raised. Then the argument is
|dashed in that the loss resistance is ALSO raised by the same
|mechanism and the efficiency either suffers by comparison, or at best
|breaks even.

Devoldere definitely debunks this idea.
|

|This is the bane of loading, it introduces new sources of loss in
|comparison to the native "radiation resistance" that is unaltered by
|their inclusion.

Loading with finite Q inductors surely introduces additional loss.
Nevertheless, the "real" radiation resistance can be increased beyond
that of the unloaded antenna. Hansen reports this in a paper
available at:

http://users.triconet.org/wesandlinda/HansenPaper.pdf

Or, model a short lossless monopole over perfect ground and determine
the feedpoint R. In this case, R is totally due to radiation loss,
i.e. "radiation resistance." Add a lossless loading inductance
somewhere in the middle and see what happens to R.

Regards,

Wes

# 1827. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-05 03:50:21 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10olu3vln4bro7c@corp.supernews.com>
Source record: 87022

Sorry, I take issue with this. The radiation resistance, as universally used in the professional literature, *is* a distributed radiation resistance -- it's the resistance that "consumes" the power radiated from the entire antenna, not just one point on the antenna. But that entire power-consuming property is commonly lumped into a single component -- the "radiation resistance" which can be defined (or "referred to") anywhere on the antenna you'd like, including but not limited to the feedpoint. And when placed at that point, it consumes the amount of power radiated from the entire antenna. It's not one single, absolute value, but a component whose value depends on where you define it on the antenna. A very simple and correct way of looking at it is to realize that if P watts is being radiated from the antenna, the radiation resistance value has to equal P/I^2, where I is the magnitude of the current at the point where you're measuring or defining the radiation resistance. So the radiation resistance always "consumes" P watts.

If you want to calculate efficiency, you have to do the same thing with the loss resistance, and make a single R that consumes the same amount of power as the total antenna loss. Again, you can define it anywhere on the antenna including the feedpoint, and it'll have a different value wherever you put it. To calculate efficiency from radiation and loss resistances, both have to be -- correctly -- defined at (or "referred to") the same point.

There's no need for additional "essential" fundamental terms -- the simple concept of radiation resistance as I've described it is perfectly adequate to explain and calculate antenna radiation and efficiency. But like other concepts, it does take a little effort to understand it.

Roy Lewallen, W7EL

Reg Edwards wrote:

> Radiation Resistance.
>
> Roy, what an excellent, well needed exposition, in plain English, addressed
> mainly to professionals who should know better, and are guilty (dare I say
> it) of obtaining money under false pretences.
>
> You omitted only "DISTRIBUTED radiation resistance", a term essential to but
> absent from this newsgroup. It's probably also absent from Terman and Kraus,
> the latter I have never read. It's an aid to clear logical thought.
>
> It should be used whenever radiation resistance is compared with conductor
> resistance, inductance, capacitance, etc., of elongated wires and loading
> coils.

>
> As an example, it so happens that the distributed, end-to-end, radiation
> resistance, Rd, of a half-wave diopole is exactly twice (easily proved) the
> feedpoint resistance of around 72 ohms.
>
> The radiating efficiency of a half-wave dipole is then, very simply and
> accurately -
>
> Efficiency = 144 / ( 144 + overall HF conductor resistance )
>
> although some old-wives may wish to argue about it on the grounds that it's
> far too simple.
> ----
> Reg, G4FGQ
>
>

# 1828. Re: Using a Pool Cage As an Antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-05 04:18:28 UTC
From: MoBush <echostar@thaimail.org>
Message-ID: <oaDid.2038$Uy5.235@trnddc07>
Source record: 87023

Sorta reminds me of the "snake" antenna I heard about many yrs ago.

Dont know if it worked or not, or if some one was just pulling my leg,
but on 160M those claiming they were using it actually had good signals.

I NEVER TRIED ONE BUT I HONESTLY THINK IT WAS A JOKE.

(Caps for Effect)

W9zr wrote:

> Has anyone tried using an aluminum pool cage as an antenna? If so , how
> did you feed it?
>
> My cage is 30 ft by 30 ft and about 20 feet high. It is grounded with
> several ground rods and all the aluminum supports appear to be well
> connected with one another.
>
> I am thinking about shunt feeding it on 20 and and 40 meters.
>
> Ideas?
>
> 73 Randy

# 1829. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-05 07:45:16 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <bp7mo05n59tja6ndtqv4f4msnpq0up5sdt@4ax.com>
Source record: 87024

On Thu, 04 Nov 2004 20:38:35 -0700, Wes Stewart <n7ws_@_yahoo.com>
wrote:

>Or, model a short lossless monopole over perfect ground and determine
>the feedpoint R. In this case, R is totally due to radiation loss,
>i.e. "radiation resistance." Add a lossless loading inductance
>somewhere in the middle and see what happens to R.

Hi Wes,

The difference between the two (perfect/real) insofar as Z is hardly
remarkable.

First I will start with a conventionally sized quarterwave and by
iteration approach the short antenna and observe effects. I am using
the model VERT1.EZ that is in the EZNEC distribution and modifying it
by turns. For instance, I immediately turn on the wire loss.

40mm thick radiator 10.3 meters tall:
Impedance = 36.68 + J 2.999 ohms
which lends every appearance to expectation of Rr that could be
expected from a lossless perfect grounded world.
Best gain is
-0.03dBi

next iteration:

cut that sucker in half:
Impedance = 6.867 - J 301 ohms
which, again, conforms to most authorities on the basis of Rr.
best gain
0.16dBi
How about that! More gain than for the quarterwave (but hardly
remarkable). This makes me wonder why any futzing is required except
for the tender requirements of the SWR fearing transmitter (which, by
the way, could be as easily taken care of with a tuner).

next iteration:

load that sucker for grins and giggles:
load = 605 Ohms Xl up 55%
Impedance = 13.43 + J 0.1587 ohms
Did I double Rr? (Only my hairdresser knows.)
best gain
0.13dBi
Hmm, losing ground for our effort, it makes a pretty picture of
current distribution that conforms to all the descriptions here (sans

the balderdash of curve fitting to a sine wave). I am sure someone will rescue this situation from my ineptitude by a better load placement, so I will leave that unfinished work to the adept practitioners.

next iteration:

cut that sucker down half again (and remove the load):
Impedance = 1.59 - J 624.6 ohms
Something tells me that this isn't off the scale of the perfect comparison.
best gain:
0.25dBi
Hmm, the trend seems to go counter to intuition.

next iteration:

-sigh- what charms could loading bring us?
load = 1220 Ohms Xl up 55%
Impedance = 3.791 + J 1.232 ohms
more than doubled the Rr?
best gain:
0.23dBi

Now, all of this is for a source that is a constant current generator; we've monkeyed with the current distribution and put more resistance (Rr?) into the equation with loading; and each time loading craps in the punch bowl.

So much for theories of Rr being modified by loading. I would appreciate other effort in kind to correct any oversights I've made (not just the usual palaver of tedious "explanations" - especially those sophmoric studies of current-in/current-out).

73's
Richard Clark, KB7QHC

## 1830. Project Argus

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-05 08:08:49 UTC
From: rtinio@sysmatrix.net
Message-ID: <c8b223ca.0411050008.7893d05b@posting.google.com>
Source record: 87025
Cross-posted to: alt.war.nuclear,rec.radio.amateur.antenna

I am interested on the effect of a HANE (High Altitude Nuclear Explosion) ionization effect (not EMP)on UHF to SATCOM frequencies up to 300GHZ. There was a naval experiment called Project Argus back in the late 50's investigating the effect of a HANE on radio communication and radar. Of course, back then no one was using UHF and SATCOM.

Except from a document dating back from the 80's dealing with MX-1 C3 which was very vague, there is not much data on this phenomena.

## 1831. amaeteur radio

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-05 08:32:33 UTC
From: Brian Stephanik <bsteph@u.washington.edu>
Message-ID: <cmfdrm$j75$2@gnus01.u.washington.edu>
Source record: 87026

Hi, I'm part of an amateur radio astronomy group trying to get a dish on top of a roof to work. We have much of the equipment, but are having trouble putting it together, as far as how exactly to hook everything up. Would this be the right newsgroup to post to? Thanks.

-brian

# 1832. Re: Does anyone have the 2005 ARRL Handbook??

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-05 09:19:51 UTC
From: Paul Jordan <pauljordan@gci.net>
Message-ID: <10omhja7jma4n25@corp.supernews.com>
Source record: 87027

w9gb wrote:
> "Paul Jordan" <pauljordan@gci.net> wrote in message
> news:10oehejhba3d39c@corp.supernews.com...
>
>>I'm trying to get a copy of the article about the 60 meter transceiver kit
>>in the book. The stores up here don't have it available yet. I was
>>wondering if someone might burn me a copy of the article so I can get
>>started on the 60 meter kit.
>>
>>Any help is greatly appreciated.
>>
>>Paul Jordan
>>kl0an
>>Anchorage, AK
>
>
> ARRL pre-orders were promptly shipped in October. I will have to look, but
> I though this was a rework of an earlier kit.
>
> gb
>
>
Any help on that would be greatly appreciated. I didn't get in on an
advance order. Actually, the place I work will buy a copy of it for me,
I just wanted to get started on that kit.

Thanks,
Paul
kl0an
Anchorage, AK

# 1833. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-05 12:29:58 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <418b7057$1_1@127.0.0.1>
Source record: 87028

Roy Lewallen wrote:
> According to the many references I have, the equation you quote is a
> simplified equation that's valid for a single wire over a perfect
> conducting ground plane, where the height is a very small fraction of a
> wavelength (i.e., radiation is negligible).

Even if everything you say is true, it doesn't nullify the concepts of physics. Even if the Z0 is changing point to point along the length of the wire, as it surely does for a vertical antenna, the idea that standing wave antennas don't possess standing waves is ridiculous.

The idea that the net antenna current on a standing wave antenna is not itself a standing wave is ridiculous. The idea that the net antenna current on a standing wave is not the result of the superposition of the forward current and reflected current is ridiculous. The idea that RF waves can stand still is ridiculous. The idea that current flows in only one direction in a standing wave antenna is ridiculous.

A Rhombic, for instance, is a traveling wave antenna. Its feedpoint impedance is equivalent to its characteristic impedance which is hundreds of ohms. In a standing wave antenna, it is the reflected wave superposing with the forward wave at the feedpoint that determines the feedpoint impedance, low for 1/2WL center-fed dipoles and high for 1WL center-fed dipoles. The feedpoint impedance depends upon interference between the forward wave and the reflected wave.

All you have proven is that this is a difficult subject to quantitize, but we already knew that. It is not a difficult subject to conceptualize.

So, Roy, please answer the following true/false questions.

Standing wave antennas actually exhibit standing waves as described by Kraus, Balanis, and others. ______

Standing waves are created by the superposition of forward waves and reflected waves. ________

RF waves cannot stand still. _______ If true, it follows that "standing" waves are an artifact of superposition and cannot exist without the two underlying component waves.

What is moving at the speed of light is the forward wave and the reflected wave. ________ Hint: RF waves must move at the speed of light. Therefore, RF standing waves have two components, each moving at the speed of light in opposite directions.

For what it's worth, here's a quote from The ARRL Antenna Book, 15th edition, page 24-22 under "Single Wire Line": "The characteristic impedance of the single wire line depends on the conductor size and the height of the wire above ground, ranging from 500 to 600 ohms for #12 or #14 conductors at heights of 10 to 30 ft." Nothing said about "perfect ground" or "small fractions of wavelength".

Again, the concepts that I discuss fall out perfectly from the laws of physics. That they are difficult to quantify is not a good reason to adopt a closed mind. (This reminds me of my Southern Baptist upbringing where some subjects were forbidden).
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

# 1834. Re: CATV splitter question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-05 12:31:53 UTC
From: Active8 <reply2group@ndbbm.net>
Message-ID: <19dv2mo0yldr9.dlg@news.individual.net>
Source record: 87029

On Wed, 3 Nov 2004 05:31:20 -0500, Art wrote:

> Generally the splitters are installed by "professionals" without even
> considering termination of the unused ports.

I use the correct splitter. If there were ever a reason to do
otherwise, I'd terminate.

> I normally put the splitters
> closest to the main feed line coming into the residence. use high quality
> coax (RG-6) and high quality crimped connectors. Termination at the unused
> ports with a 75 ohm terminator available at most supply outlets and
> occasionally Rat Shack. The I take a nice portable tele to each final
> location, check the quality of the supplied signal at that point, if
> necessary, installation of a high quality distribution amplifier rather than
> the passive splitter in required. May want to contact a person who does this
> ona commercial basis and askk theire source of materials, etc.

Real CATV amps cost too much to consider for the average single
home.

CATV co's usually spec the max outlets per outside drop to 4. It's
better to have another drop after that.

Off the shelf boosters... I'd like to see a cheap one that handles 1
GHz *and* passes the return channels.

<snip>
--
Best Regards,
Mike

# 1835. New Version of SmartSmith Program Available (Ver 1.4, Nov 5, 2004)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-05 13:21:58 UTC
From: w9dmk@crosslink.net
Message-ID: <418b7e0a.2106158@news.crosslink.net>
Source record: 87030

An update to the "SmartSmith" program is now available at my Web Site
- http://www.qsl.net/w9dmk.

This new version (version 1.4, Nov 5,2004) incorporates several new
features, as follows:
Modeling of Matched Line losses in transmission lines and stubs,
including the additional loss due to SWR.
Additional Tutorials in the Help file, including design of Pi matching
sections.
Data logging to the disk, allowing you to keep a record of the design
steps.

The new version can also be downloaded directly from this link:
http://www.qsl.net/w9dmk/SWDownloads/SmartSmith14.zip
Bob, W9DMK, Dahlgren, VA
http://www.qsl.net/w9dmk

# 1836. Re: Project Argus

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-05 14:32:29 UTC
From: fractenna@aol.com
Message-ID: <20041105093229.14202.00000113@mb-m13.aol.com>
Source record: 87031

Why are you asking here?

73,
Chip N1IR

# 1837. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-05 16:22:34 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cmg9ca$6jo$1@sparta.btinternet.com>
Source record: 87032

"Roy Lewallen" wrote -

> Sorry, I take issue with this. The radiation resistance, as universally
> used in the professional literature, *is* a distributed radiation
> resistance --

==========

Yes, I know. Didn't I just say so?

It's just that nobody ever refers to it as such.

It would avoid a lot of misunderstandings and arguments if they did!
----
Reg.

# 1838. Re: Looking for TA33 or TA32

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-05 16:26:24 UTC
From: iw0hex@email.it
Message-ID: <30f47a04.0411050826.4bde05a@posting.google.com>
Source record: 87033

Tnx a lot Tam.
First of all, sorry for my bad english.
I have a little space for my antennas so I'm looking for a little triband 10,15 and 20 meters. I'm interested to Mosley product, expecially TA33-JR or TA32-JR. I read on eham.net (www.eham.net) any reviews about these antennas and everybody are enthusiastic.
I'm interested also to HyGain TH3JR but weights is a little more than Mosley's.
Any news or ideas is appreciated.
73s Pasquale IW0HEX

# 1839. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-05 16:48:29 UTC
From: richardharrison@webtv.net
Message-ID: <26330-418BAEDD-30@storefull-3258.bay.webtv.net>
Source record: 87034

Roy Lewallen, W7EL wrote:
"Sorry. I take issue with this. The radiation resistance as universally used in the professional literature "is" a distributed radiation resistance---."

One definition, but not universal by any means.

Terman is as professional as needed for most purposes. Terman defines radiation resistance and the custom for stating it on page 891 of his 1955 edition:
"Unless specifically stated to the contrary, it is customary to refer the radiation resistance to a current maximum in the case of an ungrounded antenna, and to the current at the base of the antenna when the antenna is grounded."

Terman`s definition is unequivocal and useful. It is echoed by other authors.

Kraus says on page 182 of his final 3rd edition:

"Ro = 60 times the intergral, zero to pi, of the square of Cos [(beta L/2) cos theta] - cos(beta L/2) / sin theta, d theta

Where the radiation resistance Ro is referred to the current maximum.

In this case of a 1/2-wave antenna, this is at the center of the antenna or at the terminals of the transmission line (see Fig. 6-7)."

The solution for a thin dipole yields 73 ohms.

Of course, the impedance of a standing-wave antenna varies continuously along its length due to interaction of waves traveling in opposite directions. For practical purposes, we can define Ro as the resistive part and transform its value to the antenna input terminals if these don`t correspond to a current maximum.

Best regards, Richard Harrison, KB5WZI

# 1840. Re: Project Argus

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-05 16:52:40 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <0dbno09i881m5m273bg2pl9o5g4crs6557@4ax.com>
Source record: 87035
Cross-posted to: alt.war.nuclear,rec.radio.amateur.antenna

On 5 Nov 2004 00:08:49 -0800, rtinio@sysmatrix.net (rtinio) wrote:

>I am interested on the effect of a HANE (High Altitude Nuclear
>Explosion) ionization effect (not EMP)on UHF to SATCOM frequencies up
>to 300GHZ. There was a naval experiment called Project Argus back in
>the late 50's investigating the effect of a HANE on radio
>communication and radar. Of course, back then no one was using UHF
>and SATCOM.
>
>Except from a document dating back from the 80's dealing with MX-1 C3
>which was very vague, there is not much data on this phenomena.

Hi OM,

Try searching:
http://www.airpower.maxwell.af.mil/

A good search term might include "Electromagnetic Bombs" (E-Bomb)
which relate to this field of your interest.

Another sidebar might be found at:
http://www.haarp.alaska.edu/
which is the HIGH FREQUENCY ACTIVE AURORAL RESEARCH PROGRAM
This group would study the effects you speak of, and possibly generate
them as well, although not by nuclear means.

73's
Richard Clark, KB7QHC

# 1841. Re: amaeteur radio

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-05 16:55:06 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <kqbno0loajpbn5atvjajqjd850dqhqdr9l@4ax.com>
Source record: 87036

On Fri, 05 Nov 2004 00:32:33 -0800, Brian Stephanik
<bsteph@u.washington.edu> wrote:

>Hi, I'm part of an amateur radio astronomy group trying to get a dish on
>top of a roof to work. We have much of the equipment, but are having
>trouble putting it together, as far as how exactly to hook everything
>up. Would this be the right newsgroup to post to? Thanks.
>
>-brian

Hi Brian,

Maybe - maybe not. As far as the nuts and bolts go, there's a far
greater chance, but as to the practicability - well, let's just say
you might be lucky to find a lot of opinions.

73's
Richard Clark, KB7QHC

# 1842. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-05 17:00:17 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <v0cno01k9tegr98dqehlkb8hhvtadibda8@4ax.com>
Source record: 87037

On Fri, 05 Nov 2004 06:29:58 -0600, Cecil Moore <w5dxp@hotmail.com>
wrote:
> the idea that ... is ridiculous.
>The idea that ... is ridiculous.
>The idea that ... is ridiculous.
>The idea that ... is ridiculous.
>The idea that ... is ridiculous.
That all such ideas were expressed by only you ... is typical.

# 1843. Re: Looking for TA33 or TA32

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-05 17:15:39 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <dN6dnWv_xPK1KBbcRVn-qw@comcast.com>
Source record: 87038

"Pasquale IW0HEX" <iw0hex@email.it> wrote in message
news:30f47a04.0411050826.4bde05a@posting.google.com...
> Tnx a lot Tam.
> First of all, sorry for my bad english.
> I have a little space for my antennas so I'm looking for a little
> triband 10,15 and 20 meters. I'm interested to Mosley product,
> expecially TA33-JR or TA32-JR. I read on eham.net (www.eham.net) any
> reviews about these antennas and everybody are enthusiastic.
> I'm interested also to HyGain TH3JR but weights is a little more than
> Mosley's.
> Any news or ideas is appreciated.
> 73s Pasquale IW0HEX

My guess is that the 2 element full power beam like the TA32 or TH2 will outperform the 3 element juniors. The traps on these 3 element beams are very small, and the element spacing too close. The 2 element will have a slightly shorter boom, but slightly longer elements. Also, the junior beams will not withstand much power. I burned out a trap on the TA33JR by operating with a linear amplifier. The directivity and F/B ratio on the TA33JR were very poor.

I had the TA33JR for 20 years, and did not start to question its performance until I started doing comparisons.

Tam/WB2TT

# 1844. Re: amaeteur radio

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-05 17:17:41 UTC
From: fractenna@aol.com
Message-ID: <20041105121741.12288.00000167@mb-m28.aol.com>
Source record: 87039

>>Hi, I'm part of an amateur radio astronomy group trying to get a dish on
>>top of a roof to work. We have much of the equipment, but are having
>>trouble putting it together, as far as how exactly to hook everything
>>up. Would this be the right newsgroup to post to? Thanks.
>>
>>-brian

Woody Sullivan (faculty) will probably steer you in the right direction. Tell
him Chip Cohen says :'hi'.

73,
Chip N1IR

# 1845. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-05 17:40:40 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <418bb64c$1_3@127.0.0.1>
Source record: 87040

Richard Harrison wrote:
> "Ro = 60 times the intergral, zero to pi, ...

Heh, heh, since you don't know the last digit of pi, Roy
probably won't allow you to use it. :-)

> Where the radiation resistance Ro is referred to the current maximum.

The point seems to be that the impedance at the current maximum
point includes terms besides radiation resistance. In simplified
form, for a resonant antenna, Rfeed = Rrad + Rloss

Rloss includes I^2*R losses and ground losses and is sometimes
negligible and sometimes not.

For some antenna configurations, Rloss is negligible, so the
feedpoint resistance can be very close to the radiation
resistance, e.g. a dipole in free space.

For other antenna configurations, Rloss is much greater than
the radiation resistance, e.g. an 8 foot center-loaded 75m
mobile antenna.

My screwdriver has approximately a 12.5 ohm feedpoint resistance
on 75m. I consider approximately 10 ohms of that to be ground
loss.
--
73, Cecil, W5DXP

# 1846. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-05 17:43:43 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <5oeno0ldjg53467ithjp5dvu919su1p8de@4ax.com>
Source record: 87042

On Fri, 05 Nov 2004 06:29:58 -0600, Cecil Moore <w5dxp@hotmail.com>
wrote:
> the idea that ... is ridiculous.
>The idea that ... is ridiculous.
>The idea that ... is ridiculous.
>The idea that ... is ridiculous.
>The idea that ... is ridiculous.
On Fri, 05 Nov 2004 11:46:32 -0600, Cecil Moore <w5dxp@hotmail.com>
wrote:
>Kraus and Balanis also express the same ideas

:-)

# 1847. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-05 17:46:32 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <418bb7ac$1_5@127.0.0.1>
Source record: 87041

Richard Clark wrote:
> That all such ideas were expressed by only you ... is typical.

Kraus and Balanis also express the same ideas which are
obvious from the underlying EM wave physics. Although I
don't have Terman's book, apparently so does he.
--
73, Cecil, W5DXP

# 1848. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-05 17:47:28 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cmgebg$alv$1@hercules.btinternet.com>
Source record: 87043

As another example, the resonant Q of a half-wave dipole is -

Q = Omega * Ld / Rd

or

The reactance of its DISTRIBUTED inductance divided by its DISTRIBUTED
radiation resistance.

Perfectionists may DIRECTLY add conductor resistance to the radiation
resistance because that, too, is a DISTRIBUTED quantity.
---
Reg.

## 1849. Re: Telescopic to coax adaptor?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-05 18:03:06 UTC
From: mike.s.spence@btopenworld.com
Message-ID: <c549c044.0411051003.58e3dcfb@posting.google.com>
Source record: 87044

"Jack Painter" <223bthp@cox.net> wrote in message news:<Zuuid.1$uT4.0@lakeread03>...
> Mike, a receiver that does not provide for external antenna connection, will
> probably not benefit from forcing the input of one. The front end design of
> many portables uses double-conversion only, this allows for reception of
> fairly weak signals from the provided whip antenna. But it does not always
> bode well when powerful inputs such as an external antenna can provide,
> overloading the little portables and making it more difficult to discern
> between stations close to each other. Recommend you use your portable for
> what it was intended for, and look into adding a tabletop receiver if you
> want to input external antenna feed.
>
> Best regards,
>
> Jack Painter
> Virginia Beach VA

Thanks for that Jack, I see your point. The receiver in question is a
Sony XDR-S1 DAB and I'm in a marginal reception area. Before I spent
out on DAB I tried one (not the Sony) and the reception was
reasonable, the Sony isn't as good though and I just thought that
maybe I could help it a bit with an external aerial.

Thanks for your thoughts,

Mike

# 1850. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-05 18:05:40 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <0q6io09iae270qvdpo3iv8hu5muar113jb@4ax.com>
Source record: 87045

On Fri, 05 Nov 2004 07:45:16 GMT, Richard Clark <kb7qhc@comcast.net>
wrote:

>So much for theories of Rr being modified by loading. I would
>appreciate other effort in kind to correct any oversights I've made

Hi All,

Nothing to offer? I didn't think so. :-)

Well, to enlarge the dialogue (but still reject those who prefer to
change the topic to what they CAN prove), any -ahem- "explanations?"

73's
Richard Clark, KB7QHC

# 1851. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-05 18:10:28 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cmgfmk$6vu$1@titan.btinternet.com>
Source record: 87046

```
> I'm chugging Franzia Merlot while cleaning my Colt Python .357 Magnum
> and Winchester 30-30 Lever-Action Carbine. :-)
> --
> 73, Cecil
============================

After shooting a rattler do you, Hollywood-fashion, put the weapon to your
lips and blow the smoke out of the barrel? ;o)
----
Reg.
```

# 1852. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-05 18:45:57 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <cmgi44$1ph$1@news.service.uci.edu>
Source record: 87048

Richard Clark wrote:

> On Fri, 05 Nov 2004 07:45:16 GMT, Richard Clark <kb7qhc@comcast.net>
> wrote:
>
>
>>So much for theories of Rr being modified by loading. I would
>>appreciate other effort in kind to correct any oversights I've made
>
>
> Hi All,
>
> Nothing to offer? I didn't think so. :-)

I have a question. Can you express the mathematical and/or physical relationship between Rr and antenna gain? It would sure help to clarify the point you were trying to make.

Thanks and 73,

AC6XG

# 1853. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-05 18:52:16 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <418bc715$1_3@127.0.0.1>
Source record: 87047

Reg Edwards wrote:

>W5DXP wrote:
>>I'm chugging Franzia Merlot while cleaning my Colt Python .357 Magnum
>>and Winchester 30-30 Lever-Action Carbine. :-)
>
> After shooting a rattler do you, Hollywood-fashion, put the weapon to your
> lips and blow the smoke out of the barrel? ;o)

I'm not that primitive, Reg. I use commercial ammo with smokeless
powder. But a friend of mine indeed does use black powder with his
cap and ball revolver.
--
73, Cecil, W5DXP

# 1854. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-05 19:15:01 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <ViQid.68146$OD2.22277@bgtnsc05-news.ops.worldnet.att.net>
Source record: 87049

Richard,

It is not clear just what you were trying to demonstrate, but there was no obvious connection to Rr. Maximum gain is unrelated to Rr.

Were you looking for validation that you correctly loaded the numbers into EZNEC?

Looked OK to me.

(OK, so my trolling is not as professional as yours, but I tried.)

If you really are concerned about Rr, then consider the following.

Rr is defined by the equation:

Total power radiated = a*I*I*Rr,

where I and Rr are referred to the same point on the antenna.

For short antennas this reference point is generally taken as the feedpoint, which is also the current maximum point. There is no loss, so all power into the antenna is radiated. Therefore the Rr for each of your perfect world, zero loss examples is proportional to the feedpoint resistance. Apply an appropriate scaling factor (a) if you want the correct numbers.

Did you have a question about something?

The bottom line, of course, is that none of this matters in a perfect world with zero loss. All the power input is shot into space. Please let us know where we can find that perfect world :-)

73,
Gene
W4SZ

Richard Clark wrote:
> On Fri, 05 Nov 2004 07:45:16 GMT, Richard Clark <kb7qhc@comcast.net>
> wrote:
>
>
>>So much for theories of Rr being modified by loading. I would
>>appreciate other effort in kind to correct any oversights I've made
>
>
> Hi All,
>

> Nothing to offer? I didn't think so. :-)
>
> Well, to enlarge the dialogue (but still reject those who prefer to
> change the topic to what they CAN prove), any -ahem- "explanations?"
>
> 73's
> Richard Clark, KB7QHC

# 1855. Loop antenna electrostatic shields

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-05 19:35:00 UTC
From: Joel Kolstad <JKolstad71HatesSpam@Yahoo.Com>
Message-ID: <XqednfBGoctGSBbcRVn-iw@comcast.com>
Source record: 87050

When you build a loop antenna, it's common to wrap it in, e.g., aluminum foil that's grounded so as to prevent electric field pick-up (I'm thinking of HF loops here, <30MHz). A slit is made in the wrapping so that a shorted turn isn't created, thereby nulling out the magnetic field that the loop is trying to detect in the first place.

Something I don't understand, though... normally, if you were thinking of using aluminum for EMI shielding purposes, the skin depth of aluminum at 10MHz is all of ~1mil. Hence, a regular sheet of aluminum foil would significantly attenuate both the magnetic and electric fields on its 'far' side. Why doesn't this apply in the case of a shielded loop antenna? It seems to me that the ~95+% 'coverage' of the shield (everything minus the slit to prevent the shorted turn) would be what dictates the overall shielding effectiveness, not the presence of the slit itself.

Looking for insight,
---Joel Kolstad

# 1856. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-05 19:40:13 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <lqkno0p8g0ch1jul3rnnu3va1qrvanlkmj@4ax.com>
Source record: 87051

On Fri, 05 Nov 2004 19:15:01 GMT, Gene Fuller <W4SZzzzzzz@att.net>
wrote:

>Richard,
>
>It is not clear just what you were trying to demonstrate, but there was
>no obvious connection to Rr. Maximum gain is unrelated to Rr.

Hi Gene,

The tenor of correspondence here would suggest otherwise. The
evidence of testing would suggest there is. The disconnect is that
the evidence counters the suggestions in correspondence.

>Were you looking for validation that you correctly loaded the numbers
>into EZNEC?
>
>Looked OK to me.

Thanx, but now we may BOTH be wrong. ;-)

>For short antennas this reference point is generally taken as the
>feedpoint, which is also the current maximum point. There is no loss

I did explicitly state that wire loss had been turned on, and real
ground was used.

>, so
>all power into the antenna is radiated. Therefore the Rr for each of
>your perfect world

Again, there was no "perfect world."

>, zero loss examples is proportional to the feedpoint
>resistance. Apply an appropriate scaling factor (a) if you want the
>correct numbers.

Wholly unnecessary, EZNEC can cope with loss quite well and
demonstrates a real world solution (barring my errors of commission or
omission) within tolerable limits.

>Did you have a question about something?

>>I would appreciate other effort in kind to correct any oversights
>>I've made

>The bottom line, of course, is that none of this matters in a perfect
>world with zero loss. All the power input is shot into space. Please let
>us know where we can find that perfect world :-)

You are right about your quality of trolling. A "perfect world?" You couldn't supply one? ;-)

73's
Richard Clark, KB7QHC

# 1857. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-05 19:49:18 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <o4mno05qeonc3qqu85ei6kergielt4e9mg@4ax.com>
Source record: 87052

On Fri, 05 Nov 2004 10:45:57 -0800, Jim Kelley <jwkelley@uci.edu>
wrote:

>I have a question. Can you express the mathematical and/or physical
>relationship between Rr and antenna gain? It would sure help to clarify
>the point you were trying to make.

Hi Jim,

I would have thought someone else could, given the bandwidth of
discussion in making the current taper shorter and the constant
current section longer. Testing does not bear their facile
relationship out however, and for the topic of a short antenna
(otherwise, why are we talking about loading coils?) it would seem
that antenna gain is immutable over several octaves below a
quarterwave length.

Of course, I coulda done something wrong. I did use a commonly
available design. I did use a commonly available modeler. I even may
have done the wrong thing in choosing a design that could be evaluated
for free. Perhaps I erred in providing the cogent details of
construction. It took all of 20 minutes to accomplish (far less time
than that expended in theories of current-in/current-out). These
technical hurdles appear to have set the bar too high for my work's
refutation in kind. I appreciate that "it's hard work!" ;-)

To answer your question, if you just abandon the perfect load, then
you stand to achieve a higher gain. If you shorten the antenna, then
you stand to achieve a higher gain. There is no change in Rr with the
addition of Xl. Hence the mathematical relationship for an antenna
shorter than quarterwave would be suggested as:
gain ~ 1/Rr
gain ~ 1/Xl
Rr <> Z

Don't take this gain to the bank however.

73's
Richard Clark, KB7QHC

# 1858. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-05 19:54:38 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <418bd88e$1_3@127.0.0.1>
Source record: 87053

Richard Clark wrote:
> Cecil Moore <w5dxp@hotmail.com> wrote:
>>Kraus and Balanis also express the same ideas
>
> :-)

Apparently, you are not reading the quotes: From "Antennas For All Applications", by Kraus and Marhefka, 3rd edition:

From page 187 regarding standing wave ANTENNAS:
"A sinusoidal current distribution may be regarded as the standing wave produced by two uniform (unattenuated) traveling waves of equal amplitude moving in opposite directions along the antenna."

From page 465 regarding a dipole ANTENNA longer than 1/2WL:
"When the antenna (dipole) is infinitesimally thin, the phase varies as a step function, being constant over 1/2WL and changing by 180 deg. at the end of the 1/2WL interval. This type of phase variation is observed in a PURE STANDING WAVE." emphasis mine.

**********

From _Antenna_Theory_, Balanis, Second Edition, Chapter 10, page 488 & 489
"The current and voltage distributions on open-ended wire antennas are similar to the standing wave patterns on open-ended transmission lines ... Standing wave antennas, such as the dipole, can be analyzed as traveling wave antennas with waves propagating in opposite directions (forward and backward) and represented by traveling wave currents If and Ib ..."

I got my ideas from Kraus and Balanis, and in particular from Balanis' antenna courses at ASU where he found no fault with my ideas.

Do you agree or disagree with Kraus and Balanis that standing wave antennas exhibit standing waves? If they do, they follow the well known laws of physics governing standing waves.

The combined effort to suppers the ideas of Kraus and Balanis is getting more ridiculous with each passing day. It can no longer be explained by ignorance.
--
73, Cecil http://www.qsl.net/w5dxp

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# 1859. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-05 19:57:16 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <418bd92b$1_1@127.0.0.1>
Source record: 87054

Cecil Moore wrote:
> The combined effort to suppers the ideas of Kraus and Balanis is getting

Darn spellchecker. "suppers" should be "suppress".

> more ridiculous with each passing day. It can no longer be explained by
> ignorance.
--
73, Cecil http://www.qsl.net/w5dxp

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# 1860. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-05 20:07:02 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <418bdb77_2@127.0.0.1>
Source record: 87055

Gene Fuller wrote:
> The bottom line, of course, is that none of this matters in a perfect
> world with zero loss. All the power input is shot into space. Please let
> us know where we can find that perfect world :-)

EZNEC? - lossless antennas and ground planes.
--
73, Cecil http://www.qsl.net/w5dxp

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http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
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# 1861. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-05 20:18:08 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <monno05hghpf4jni1pneav43247h504255@4ax.com>
Source record: 87056

On Fri, 05 Nov 2004 13:57:16 -0600, Cecil Moore <w5dxp@hotmail.com>
wrote:
>> The combined effort to suppers the ideas of Kraus and Balanis is getting
>Darn spellchecker. "suppers" should be "suppress".
>> more ridiculous with each passing day. It can no longer be explained by
>> ignorance.
Blame the spellchecker?

# 1862. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-05 21:06:40 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10onqr27d40s3e8@corp.supernews.com>
Source record: 87057

Richard Clark wrote:
> 
> First I will start with a conventionally sized quarterwave and by
> iteration approach the short antenna and observe effects. I am using
> the model VERT1.EZ that is in the EZNEC distribution and modifying it
> by turns. For instance, I immediately turn on the wire loss.
> 
> 40mm thick radiator 10.3 meters tall:
> Impedance = 36.68 + J 2.999 ohms
> which lends every appearance to expectation of Rr that could be
> expected from a lossless perfect grounded world.
> Best gain is
> -0.03dBi
> 
> next iteration:
> 
> cut that sucker in half:
> Impedance = 6.867 - J 301 ohms
> which, again, conforms to most authorities on the basis of Rr.
> best gain
> 0.16dBi
> How about that! More gain than for the quarterwave (but hardly
> remarkable).

This is indeed an interesting result, even though it's small. As a dipole or monopole gets shorter than a resonant length, the current distribution changes from sinusoidal to triangular. In the ideal case (and in the absence of loss), this results in the shorter antenna having a slightly fatter pattern and therefore slightly less gain. An infinitesimally short antenna has a gain of less than 0.5 below that of a resonant one, due to this (and again, in the absence of loss). So the trend you observed was backwards. The first two things I checked -- segmentation and wire loss -- proved to not be the reason. It appears to be the effect of the current distribution on the reflected wave from the ground. The radiation from each part of the antenna reflects from the ground, and the nature of the reflection depends on the angle at which it strikes the ground. Radiation from different parts of the antenna strike at different angles, and the shorter antenna has its current, therefore its radiation, apportioned differently. It's this difference that causes the slight backward trend in gain. I wouldn't put too much weight on it, however, both because of its being small, and that EZNEC and similar programs use a pretty simple ray-tracing method of calculating ground reflection rather than a more complex method which includes diffraction and other effects. You'll see the theoretical trend

if you change the ground type to Perfect, and likely a slightly
different trend if you change the ground constants.

This makes me wonder why any futzing is required except
> for the tender requirements of the SWR fearing transmitter (which, by
> the way, could be as easily taken care of with a tuner).
>
> next iteration:
>
> load that sucker for grins and giggles:
> load = 605 Ohms Xl up 55%
> Impedance = 13.43 + J 0.1587 ohms
> Did I double Rr? (Only my hairdresser knows.)
> best gain
> 0.13dBi
> Hmm, losing ground for our effort, it makes a pretty picture of
> current distribution that conforms to all the descriptions here (sans
> the balderdash of curve fitting to a sine wave). I am sure someone
> will rescue this situation from my ineptitude by a better load
> placement, so I will leave that unfinished work to the adept
> practitioners.

As I pointed out above, going from a sinusoidal to a triangular
distribution changes the gain less than 0.5 dB, so this change in
distribution changes the gain even less. And again, the interaction with
real ground reverses the trend. With Perfect ground, you'll see that
there's actually a 0.02 dB gain improvement with the new distribution.
This is, of course, insignificant, but it does show that things are
working as they should.

>
> next iteration:
>
> cut that sucker down half again (and remove the load):
> Impedance = 1.59 - J 624.6 ohms
> Something tells me that this isn't off the scale of the perfect
> comparison.
> best gain:
> 0.25dBi
> Hmm, the trend seems to go counter to intuition.

That's because you didn't understand the reason for the trend in the
first place. What's happening now is that the gain reduction caused by
the changed distribution is no longer overwhelmed by the gain increase
caused by the interaction with real ground. Again, go to Perfect ground
and you'll see that the trend of less gain as the antenna shortens is
continuing as exepected.

>
> next iteration:
>
> -sigh- what charms could loading bring us?

> load = 1220 Ohms Xl up 55%
> Impedance = 3.791 + J 1.232 ohms
> more than doubled the Rr?
> best gain:
> 0.23dBi
>

And with Perfect ground, the gain is the same within 0.01 dB with and without the load -- the modified current distribution wasn't enough to make any significant difference in the pattern and hence the gain.

> Now, all of this is for a source that is a constant current generator;
> we've monkeyed with the current distribution and put more resistance
> (Rr?) into the equation with loading; and each time loading craps in
> the punch bowl.
>
> So much for theories of Rr being modified by loading.

Everything you've done shows that Rr is modified by loading. Rr at the feedpoint is simply the resistance at the feedpoint. And it clearly changes when you insert the load. What makes you think that the Rr isn't changing?

I would
> appreciate other effort in kind to correct any oversights I've made
> (not just the usual palaver of tedious "explanations" - especially
> those sophmoric studies of current-in/current-out).

Perhaps you're expecting the gain to vary in the same way as Rr. But you see, gain will change with Rr only if the pattern shape stays the same. And each time you insert the load, the current distribution changes, which changes the shape of the pattern, which changes the gain. This is the gain change you're seeing as you change the antenna length and add loading. The main relationship between Rr and gain is the efficiency. The antennas you've modeled are so close to being 100% efficient that increasing Rr has no appreciable effect on gain. Check it yourself -- make the antenna 100% efficient by removing the wire loss and notice that there's no change in gain (maybe 0.01 dB with the full size antenna).

But now repeat your experiments with, say, a 10 ohm resistive load at the base to simulate ground system loss. And you'll see that the gain improves dramatically as your loading increases Rr (the feedpoint resistance). This is due to the improved efficiency you gain by increasing Rr.

Roy Lewallen, W7EL

# 1863. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-05 21:37:27 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <cmgs8t$92j$1@news.service.uci.edu>
Source record: 87058

Richard Clark wrote:

> On Fri, 05 Nov 2004 10:45:57 -0800, Jim Kelley <jwkelley@uci.edu>
> wrote:
>
>
>>I have a question. Can you express the mathematical and/or physical
>>relationship between Rr and antenna gain? It would sure help to clarify
>>the point you were trying to make.
>
>
> Hi Jim,
>
> I would have thought someone else could, given the bandwidth of
> discussion in making the current taper shorter and the constant
> current section longer. Testing does not bear their facile
> relationship out however, and for the topic of a short antenna
> (otherwise, why are we talking about loading coils?) it would seem
> that antenna gain is immutable over several octaves below a
> quarterwave length.
>
> Of course, I coulda done something wrong. I did use a commonly
> available design. I did use a commonly available modeler. I even may
> have done the wrong thing in choosing a design that could be evaluated
> for free. Perhaps I erred in providing the cogent details of
> construction. It took all of 20 minutes to accomplish (far less time
> than that expended in theories of current-in/current-out). These
> technical hurdles appear to have set the bar too high for my work's
> refutation in kind. I appreciate that "it's hard work!" ;-)
>
> To answer your question, if you just abandon the perfect load, then
> you stand to achieve a higher gain. If you shorten the antenna, then
> you stand to achieve a higher gain. There is no change in Rr with the
> addition of Xl. Hence the mathematical relationship for an antenna
> shorter than quarterwave would be suggested as:
> gain ~ 1/Rr
> gain ~ 1/Xl
> Rr <> Z
>
> Don't take this gain to the bank however.

Point being that antenna gain has spatial implications which Rr by
itself could not provide in the solutions.

One should conclude from your results (very nice work, by the way) that the modeler apparently doesn't figure Xl as contributing to the radiation resistance. But isn't that basically the crux of the argument here - whether or not that is in fact the case? If not, then we would have to conclude that loading coil has zero physical and electrical length, and that the impedance is constant from one end to the other. Obviously I could be wrong, but I think those are the assumptions made in your modeling software. On the other hand, if the impedance of the coil is not constant from one end to the other, and it in fact does have some real physical and/or electrical length, then I think the radiation resistance of the antenna would have to be effected by its presence in the circuit. That is, if indeed Ro is the integral of disributed r along the entire physical and/or electrical length of the antenna (credit for that formula going to an esteemed contributor to this newsgroup earlier today). Or perhaps more concisely put, if the loading coil itself contributes to the field radiating from the antenna, then it should likewise have a Rr associated with it. The converse would of course still be true.

73, Jim AC6XG

# 1864. Re: Looking for TA33 or TA32

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-05 22:00:52 UTC
From: Pasquale IW0HEX <iw0hex@email.it>
Message-ID: <fKSid.12328$1p.10248@nntpserver.swip.net>
Source record: 87059

Tnx again Tam
And in your opinion, which is better HF triband for my situation ?
I need for a little triband antenna, very light, no great weights...
unlucky, I have no tower for antennas system.
73s Pasquale IW0HEX

"Tam/WB2TT" <t-tammaru@c0mca$t.net> ha scritto nel messaggio
news:dN6dnWv_xPK1KBbcRVn-qw@comcast.com...
>
> "Pasquale IW0HEX" <iw0hex@email.it> wrote in message
> news:30f47a04.0411050826.4bde05a@posting.google.com...
> > Tnx a lot Tam.
> > First of all, sorry for my bad english.
> > I have a little space for my antennas so I'm looking for a little
> > triband 10,15 and 20 meters. I'm interested to Mosley product,
> > expecially TA33-JR or TA32-JR. I read on eham.net (www.eham.net) any
> > reviews about these antennas and everybody are enthusiastic.
> > I'm interested also to HyGain TH3JR but weights is a little more than
> > Mosley's.
> > Any news or ideas is appreciated.
> > 73s Pasquale IW0HEX
>
> My guess is that the 2 element full power beam like the TA32 or TH2 will
> outperform the 3 element juniors. The traps on these 3 element beams are
> very small, and the element spacing too close. The 2 element will have a
> slightly shorter boom, but slightly longer elements. Also, the junior
beams
> will not withstand much power. I burned out a trap on the TA33JR by
> operating with a linear amplifier. The directivity and F/B ratio on the
> TA33JR were very poor.
>
> I had the TA33JR for 20 years, and did not start to question its
performance
> until I started doing comparisons.
>
> Tam/WB2TT
>
>

# 1865. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-05 22:49:49 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <1e0oo014hhmas4i5lgme626bij6q2m8kcs@4ax.com>
Source record: 87060

On Fri, 05 Nov 2004 13:06:40 -0800, Roy Lewallen <w7el@eznec.com>
wrote:

>What makes you think that the Rr isn't changing?

Hi Roy,

With what?

I have offered a very ascetic report of very simple actions from very simple terms. You have chosen to change those terms to fit your own answer (I do not choose to put this into the context of a perfect world). Please offer effort in kind, or point out what error I've made instead of what error I might have made if something were changed from my model.

73's
Richard Clark, KB7QHC

# 1866. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-05 23:07:41 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <jp0oo0prkke7vs9t2lvl94tng69dsokei9@4ax.com>
Source record: 87061

On Fri, 05 Nov 2004 13:37:27 -0800, Jim Kelley <jwkelley@nospam.edu>
wrote:

>Point being that antenna gain has spatial implications which Rr by
>itself could not provide in the solutions.

Hi Jim,

Not sure where this is going, so I will stand with my own statements.

>One should conclude from your results (very nice work, by the way) that
>the modeler apparently doesn't figure Xl as contributing to the
>radiation resistance.

Again, words. I would offer that Xl does not adjust Rr (insofar as it
does adjust drivepoint Z). Let me add - much (there are miniscule
differences).

>But isn't that basically the crux of the argument
>here - whether or not that is in fact the case? If not, then we would
>have to conclude that loading coil has zero physical and electrical
>length, and that the impedance is constant from one end to the other.

As I say above, it is not a difference of ZERO it is a miniscule
difference (with a negative correlation). I will leave it to others
to recapture (or diminish) gain through helix building. I am
satisfied those returns will be equally diminutive.

>Obviously I could be wrong, but I think those are the assumptions made
>in your modeling software.

We both could be wrong. No one has yet to step up to the bar and
offer work in kind.

>On the other hand, if the impedance of the
>coil is not constant from one end to the other, and it in fact does have
>some real physical and/or electrical length, then I think the radiation
>resistance of the antenna would have to be effected by its presence in
>the circuit. That is, if indeed Ro is the integral of disributed r
>along the entire physical and/or electrical length of the antenna
>(credit for that formula going to an esteemed contributor to this
>newsgroup earlier today). Or perhaps more concisely put, if the loading
>coil itself contributes to the field radiating from the antenna, then it
>should likewise have a Rr associated with it. The converse would of
>course still be true.

This returns us to matters of degree. By simple observation comparing
the standard full sized radiator to ANY of the iterations, it is

obvious that nothing significant can be said of the physicality of the load, much less its contribution. In other words, is there some magical coil or magical placement that would create a short super-radiator that exceeds the performance of the standard quarterwave? [no here can recognize a eh/cfa claim?]

Let's put a handicap on this. Is there some magic combination of coil/position that would even EQUAL the performance of the standard quarterwave?

73's
Richard Clark, KB7QHC

# 1867. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-05 23:18:43 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10oo2illhdhd465@corp.supernews.com>
Source record: 87062

It might be helpful to elaborate a bit more about radiation resistance.

Consider an antenna that has no loss. If we apply 100 watts, say, to this antenna, the radiation resistance "consumes" that 100 watts. That is to say, all 100 watts is radiated.

In the case of a resonant lossless quarter wave vertical, for example, the current at the base will be about 1.67 amps if 100 watts is being radiated. We can solve for Rr at the base from P = I^2 * Rr, where I is the base current, to get Rr = P / I^2, with the result that Rr is about 36 ohms. This is the radiation resistance referred to the base -- it "consumes" the 100 watts. (We could have calculated Rr at some other point along the antenna, where I is different, and gotten a different value. But P still has to equal I^2 * Rr, where I is the current at the point to which Rr is being referred.)

Now, what determines the current we get at the base, for a given applied power and radiator length? The answer is the current distribution -- that is, the way the current varies along the length of the conductor. (I'm only considering a simple single wire antenna here. When other conductors are involved, mutual coupling between conductors also plays a role.) Putting a loading coil at the bottom of the antenna doesn't change the current distribution, it only changes the feedpoint reactance. So it doesn't change the feedpoint current for a given power input, so the radiation resistance doesn't change. But if you put a loading coil part way up the antenna, the current distribution does change. This alters the base current for the same power input and therefore the radiation resistance changes. Remember that Rr = P / I^2, where Rr and I are measured at the same point (in this case the base feedpoint), so if I changes, Rr changes. Likewise, top loading alters the current distribution and consequently the radiation resistance. For people who would like to see this graphically, the demo version of EZNEC is adequate. Just look at the View Antenna display after running a pattern, source data, or current calculation, and you'll see how the current varies along the antenna. If you set a fixed power level in the Options menu (Power Level selection), you can also see, by clicking Src Dat, exactly how the current at the source changes as the current distribution does.

If you have a fixed amount of loss, say at the base of the antenna due to ground system loss, the amount of power dissipated in that loss as heat is Ploss = I^2 * Rloss, where I is the current flowing through that loss, in this case the current at the antenna base. So for a given amount of applied power, you minimize the power lost when you minimize the base current. This is exactly equivalent to saying you're raising

the radiation resistance referred to the base. That's why mobile antenna users consider higher radiation resistance a virtue -- it means lower feedpoint current for a given power input, and therefore less power lost in the necessarily imperfect ground system.

While the principles are all the same, wire loss has to be treated a bit differently because altering the current distribution changes the amount of wire loss (which is usually combined into a single loss resistance referred to the feedpoint, or the same point where the radiation resistance is referred). Also, changing the wire length alters the wire loss, as does the total current in the wire which increases as the wire is shortened for a given power input. All these can be dealt with analytically or with a modeling program, but it's easy to lose track of exactly what's happening when all these factors are present at the same time. Fortunately, wire loss is insignificant for the vast majority of typical amateur applications. With modeling, it's easy to determine when it is and isn't significant, simply by turning wire loss on and off and observing how much the results change.

Roy Lewallen, W7EL

# 1868. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-05 23:20:26 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10oo2lslspcv196@corp.supernews.com>
Source record: 87063

I'm sorry, but I can't make any sense out of your response, so I'm
unable to answer your question.

Roy Lewallen, W7EL

Richard Clark wrote:

> On Fri, 05 Nov 2004 13:06:40 -0800, Roy Lewallen <w7el@eznec.com>
> wrote:
>
>
>>What makes you think that the Rr isn't changing?
>
>
> Hi Roy,
>
> With what?
>
> I have offered a very ascetic report of very simple actions from very
> simple terms. You have chosen to change those terms to fit your own
> answer (I do not choose to put this into the context of a perfect
> world). Please offer effort in kind, or point out what error I've
> made instead of what error I might have made if something were changed
> from my model.
>
> 73's
> Richard Clark, KB7QHC

# 1869. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-05 23:22:49 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <7k2oo05fsio8l8jnev5kkp15kljg5qrcob@4ax.com>
Source record: 87064

On Fri, 05 Nov 2004 15:20:26 -0800, Roy Lewallen <w7el@eznec.com>
wrote:

>I'm sorry, but I can't make any sense out of your response, so I'm
>unable to answer your question.

>>>What makes you think that the Rr isn't changing?
>> With what?

# 1870. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-06 00:18:34 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10oo62sipe3nt63@corp.supernews.com>
Source record: 87065

Loading.

You wrote:

>So much for theories of Rr being modified by loading.

Being a simple-minded, non-liberally educated person, I took this to mean that you'd shown that Rr isn't modified by loading, disproving theories that Rr is modified by loading. (Otherwise, I figured, you would have said "So much for theories of Rr not being modified by loading.")

Did you mean instead that there are theories that Rr isn't modified by loading? If so, who on earth is proposing those theories? As a basic understanding of Rr shows, and as your modeling results also show, there's no basis for such a "theory". What's next, a "theory" that V = I/R?

Roy Lewallen, W7EL

Richard Clark wrote:
> On Fri, 05 Nov 2004 15:20:26 -0800, Roy Lewallen <w7el@eznec.com>
> wrote:
>
>
>>I'm sorry, but I can't make any sense out of your response, so I'm
>>unable to answer your question.
>
>
>>>>What makes you think that the Rr isn't changing?
>>>
>>>With what?
>
>
>

# 1871. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-06 01:02:18 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <cmh8e8$him$1@news.service.uci.edu>
Source record: 87066

Richard Clark wrote:

> On Fri, 05 Nov 2004 13:37:27 -0800, Jim Kelley <jwkelley@nospam.edu>
> wrote:
>
>
>>Point being that antenna gain has spatial implications which Rr by
>>itself could not provide in the solutions.
>
>
> Hi Jim,
>
> Not sure where this is going, so I will stand with my own statements.

I wouldn't have it any other way, Richard.

The examination of the underlying theory taking place in this discussion resolves in different ways. Any other 'work in kind' would depend largely on which way one resolves the theory. Horse first, then cart.

Reasonable questions have been posed here. Some of the points being raised remain to an extent, unreconciled with certain aspects of conventional treatments. Obviously, thanks in no small part to empirical methods, this poses no greater hinderance to the design of efficient antennas than does the lack of a precise understanding of the nature of turbulent flow to the design of efficient fluid pumps. I find any contention that no further investigation is necessary to be less than convincing. On the contrary, the work done by the oft cited E&M engineers clearly indicates there is more to the story - a point that said engineers would undoubtedly concede without hesitation.

>>On the other hand, if the impedance of the
>>coil is not constant from one end to the other, and it in fact does have
>>some real physical and/or electrical length, then I think the radiation
>>resistance of the antenna would have to be effected by its presence in
>>the circuit. That is, if indeed Ro is the integral of disributed r
>>along the entire physical and/or electrical length of the antenna
>>(credit for that formula going to an esteemed contributor to this
>>newsgroup earlier today). Or perhaps more concisely put, if the loading
>>coil itself contributes to the field radiating from the antenna, then it
>>should likewise have a Rr associated with it. The converse would of
>>course still be true.

> This returns us to matters of degree. By simple observation comparing
> the standard full sized radiator to ANY of the iterations, it is
> obvious that nothing significant can be said of the physicality of the

> load, much less its contribution. In other words, is there some
> magical coil or magical placement that would create a short
> super-radiator that exceeds the performance of the standard
> quarterwave? [no here can recognize a eh/cfa claim?]
>
> Let's put a handicap on this. Is there some magic combination of
> coil/position that would even EQUAL the performance of the standard
> quarterwave?

Absent a thorough understanding of the phenomena, one might be inclined to conjecture about magical things. But I'm inclined toward taking satisfaction from persuing a thorough understanding of the phenomena rather than from strutting the pretense of already having one.

73, Jim AC6XG

# 1872. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-06 01:31:40 UTC
From: Frank <ve6cb@NOSPAM.telus.net>
Message-ID: <0QVid.55789$VA5.29127@clgrps13>
Source record: 87067

Concerning current distribution -- at least on a monopole above a perfectly conducting ground. I have noticed that in any antenna, of any length, inductively loaded, or not, the: Integral of I(z)dz (where the units of dz are in fractions of a wavelength, and I(z) the current distribution) is virtually a constant. Assuming the same input power in all cases. Suppose it seems pretty obvious since the total radiated power from any structure is also essentially constant. I must admit I have not seen gain increasing, with decreasing size, but then I have not seriously tried.

Regards,

Frank

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:10oo2illhdhd465@corp.supernews.com...
> It might be helpful to elaborate a bit more about radiation resistance.
>
> Consider an antenna that has no loss. If we apply 100 watts, say, to this
> antenna, the radiation resistance "consumes" that 100 watts. That is to
> say, all 100 watts is radiated.
>
> In the case of a resonant lossless quarter wave vertical, for example, the
> current at the base will be about 1.67 amps if 100 watts is being
> radiated. We can solve for Rr at the base from P = I^2 * Rr, where I is
> the base current, to get Rr = P / I^2, with the result that Rr is about 36
> ohms. This is the radiation resistance referred to the base -- it
> "consumes" the 100 watts. (We could have calculated Rr at some other point
> along the antenna, where I is different, and gotten a different value. But
> P still has to equal I^2 * Rr, where I is the current at the point to
> which Rr is being referred.)
>
> Now, what determines the current we get at the base, for a given applied
> power and radiator length? The answer is the current distribution --
> that is, the way the current varies along the length of the conductor.
> (I'm only considering a simple single wire antenna here. When other
> conductors are involved, mutual coupling between conductors also plays a
> role.) Putting a loading coil at the bottom of the antenna doesn't change
> the current distribution, it only changes the feedpoint reactance. So it
> doesn't change the feedpoint current for a given power input, so the
> radiation resistance doesn't change. But if you put a loading coil part
> way up the antenna, the current distribution does change. This alters the
> base current for the same power input and therefore the radiation
> resistance changes. Remember that Rr = P / I^2, where Rr and I are
> measured at the same point (in this case the base feedpoint), so if I
> changes, Rr changes. Likewise, top loading alters the current distribution

> and consequently the radiation resistance. For people who would like to
> see this graphically, the demo version of EZNEC is adequate. Just look at
> the View Antenna display after running a pattern, source data, or current
> calculation, and you'll see how the current varies along the antenna. If
> you set a fixed power level in the Options menu (Power Level selection),
> you can also see, by clicking Src Dat, exactly how the current at the
> source changes as the current distribution does.
>
> If you have a fixed amount of loss, say at the base of the antenna due to
> ground system loss, the amount of power dissipated in that loss as heat is
> Ploss = I^2 * Rloss, where I is the current flowing through that loss, in
> this case the current at the antenna base. So for a given amount of
> applied power, you minimize the power lost when you minimize the base
> current. This is exactly equivalent to saying you're raising the radiation
> resistance referred to the base. That's why mobile antenna users consider
> higher radiation resistance a virtue -- it means lower feedpoint current
> for a given power input, and therefore less power lost in the necessarily
> imperfect ground system.
>
> While the principles are all the same, wire loss has to be treated a bit
> differently because altering the current distribution changes the amount
> of wire loss (which is usually combined into a single loss resistance
> referred to the feedpoint, or the same point where the radiation
> resistance is referred). Also, changing the wire length alters the wire
> loss, as does the total current in the wire which increases as the wire is
> shortened for a given power input. All these can be dealt with
> analytically or with a modeling program, but it's easy to lose track of
> exactly what's happening when all these factors are present at the same
> time. Fortunately, wire loss is insignificant for the vast majority of
> typical amateur applications. With modeling, it's easy to determine when
> it is and isn't significant, simply by turning wire loss on and off and
> observing how much the results change.
>
> Roy Lewallen, W7EL

# 1873. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-06 01:51:01 UTC
From: Wes Stewart <n7ws_@_yahoo.com>
Message-ID: <0cboo0l61j86e7udihdp8gh5blomgf49mi@4ax.com>
Source record: 87068

On Fri, 05 Nov 2004 07:45:16 GMT, Richard Clark <kb7qhc@comcast.net>
wrote:

Good day Richard,

Sorry this isn't too timely, but I've been off visiting a dear friend
and soon to be silent key.

|On Thu, 04 Nov 2004 20:38:35 -0700, Wes Stewart <n7ws_@_yahoo.com>
|wrote:
|
|>Or, model a short lossless monopole over perfect ground and determine
|>the feedpoint R. In this case, R is totally due to radiation loss,
|>i.e. "radiation resistance." Add a lossless loading inductance
|>somewhere in the middle and see what happens to R.
|
|Hi Wes,
|
|The difference between the two (perfect/real) insofar as Z is hardly
|remarkable.

True.
|
|First I will start with a conventionally sized quarterwave and by
|iteration approach the short antenna and observe effects. I am using
|the model VERT1.EZ that is in the EZNEC distribution and modifying it
|by turns. For instance, I immediately turn on the wire loss.
|
|40mm thick radiator 10.3 meters tall:
| Impedance = 36.68 + J 2.999 ohms
|which lends every appearance to expectation of Rr that could be
|expected from a lossless perfect grounded world.
|Best gain is
| -0.03dBi
|
|next iteration:
|
|cut that sucker in half:
| Impedance = 6.867 - J 301 ohms
|which, again, conforms to most authorities on the basis of Rr.
|best gain
| 0.16dBi
|How about that! More gain than for the quarterwave (but hardly
|remarkable). This makes me wonder why any futzing is required except
|for the tender requirements of the SWR fearing transmitter (which, by

|the way, could be as easily taken care of with a tuner).
|
|next iteration:
|
|load that sucker for grins and giggles:
| load = 605 Ohms Xl up 55%
| Impedance = 13.43 + J 0.1587 ohms
|Did I double Rr? (Only my hairdresser knows.)
|best gain
| 0.13dBi
|Hmm, losing ground for our effort, it makes a pretty picture of
|current distribution that conforms to all the descriptions here (sans
|the balderdash of curve fitting to a sine wave). I am sure someone
|will rescue this situation from my ineptitude by a better load
|placement, so I will leave that unfinished work to the adept
|practitioners.
|
|next iteration:
|
|cut that sucker down half again (and remove the load):
| Impedance = 1.59 - J 624.6 ohms
|Something tells me that this isn't off the scale of the perfect
|comparison.
|best gain:
| 0.25dBi
|Hmm, the trend seems to go counter to intuition.
|
|next iteration:
|
|-sigh- what charms could loading bring us?
| load = 1220 Ohms Xl up 55%
| Impedance = 3.791 + J 1.232 ohms
|more than doubled the Rr?
|best gain:
| 0.23dBi
|
|Now, all of this is for a source that is a constant current generator;
|we've monkeyed with the current distribution and put more resistance
|(Rr?) into the equation with loading; and each time loading craps in
|the punch bowl.
|
|So much for theories of Rr being modified by loading. I would
|appreciate other effort in kind to correct any oversights I've made
|(not just the usual palaver of tedious "explanations" - especially
|those sophmoric studies of current-in/current-out).

Sure. Your calculations are impeccable so far (although it would be
better to use more than 10 segments IMHO).

I believe it is your contention that loading to resonance with an
arbitrarily positioned inductor, or not loading at all, does not

affect the gain, and the radiation resistance is not the same as the changing feedpoint resistance.

I am in the other camp, along with Hansen, Devoldere, et. al. who say that the current distribution does affect the radiation resistance (and in the real world, the gain/efficiency).

I hope you would agree that the normalized gain would be a good proxy for efficiency.

For example if we use the lossless 1/4 wavelength monopole over perfect ground as a reference, then gain with respect to that (5.15 dBi) would be an indicator of efficiency.

I believe that you will agree that the efficiency can be determined by:

$$\text{eta} = \frac{Rr}{Rr + Rg + Rl} \quad \text{Eq.1}$$

where Rr = radiation resistance
Rg = ground resistance
Rl = all other resistances (conductor, etc)

I think you would also agree that for the full-sized monopole over perfect ground the feedpoint resistance of ~36 Ohm = radiation resistance.

As an old (sorry [g]) metrologist, you're very familiar with substitution, so let's set Rl = 0 (lossless case) and eta to 0.5 (-3 dB). Per Eq. 1, Rg = Rr.

So in our model, if I add a simulated ground resistance, Rg, that reduces the gain by 3 dB, I have by substitution, determined the radiation resistance.

Sure enough, if I add a 36 Ohm load at the bottom of the perfect 1/4 wave monopole, the gain drops to 2.14 dBi, and the feedpoint resistance doubles.

I will let you try this with the other cases. I trust you will find that the radiation resistance does decrease with shorter radiators and/or lower loading points.

I too I would appreciate other effort in kind to correct any oversights I've made.

Wes

# 1874. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-06 01:57:57 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <r5boo0tv7kpijb3uf0ojo7phodgb4vsqls@4ax.com>
Source record: 87069

On Sat, 06 Nov 2004 01:31:40 GMT, "Frank" <ve6cb@NOSPAM.telus.net>
wrote:

> Assuming the same input power in all cases.

Hi Frank,

What would you say to "assuming the same current in all cases" and
either/both the Rr and drivepoint Z have changed to no particular
evidence in the far field?

I have been posited with
>a "theory" that V = I/R?
to which I would wryly note that nothing has been said of V (and
certainly no interest has been shown), I is known and observations of
P (as evident in the far field, which has occurred to me may be the
issue - had to say it for myself, didn't I?) for a changing R
(somewhere through the iterations).

73's
Richard Clark, KB7QHC

# 1875. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-06 02:00:53 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10ooc2ou8qgd75@corp.supernews.com>
Source record: 87070

Ah, yes, that's one of those simple observations that lures people into making false generalizations. I think you'll find that your observation isn't true for any length, but only for lengths of a quarter wavelength (for a monopole) and shorter. And only for an antenna consisting of a single straight wire. Under those conditions, the phase of the current is nearly constant along the wire, so the fields from the various parts of the antenna add together in phase at a distant point broadside to the wire. The maximum field strength is, therefore, proportional to the sum of the fields from the individual segments which, in turn, is proportional to the integral of the currents on the segments. Since the maximum field strength (or gain) doesn't change much from a very short wire to a quarter wavelength one, the integral of the current stays pretty constant. But don't, for heaven's sake, think you've discovered a rule that applies for all antennas. Not even all straight, single wire monopoles.

Roy Lewallen, W7EL

Frank wrote:
> Concerning current distribution -- at least on a monopole above a perfectly
> conducting ground. I have noticed that in any antenna, of any length,
> inductively loaded, or not, the: Integral of I(z)dz (where the units of dz
> are in fractions of a wavelength, and I(z) the current distribution) is
> virtually a constant. Assuming the same input power in all cases. Suppose
> it seems pretty obvious since the total radiated power from any structure is
> also essentially constant. I must admit I have not seen gain increasing,
> with decreasing size, but then I have not seriously tried.
>
> Regards,
>
> Frank

# 1876. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-06 02:34:32 UTC
From: Frank <ve6cb@NOSPAM.telus.net>
Message-ID: <YKWid.56015$VA5.2482@clgrps13>
Source record: 86971

Oh, I would never make such an assumption that it applies to all antennas -- well maybe it did cross my mind!. My guess was that probably everybody knew it anyway, but thought it was interesting. I have also noticed that the phase of the current is constant over thin wire monopoles of less than a 1/4 wave

Regarding Richard's comments "Assuming the same currents". Not sure I understand, since the feed-point current varies with constant power -- as does the voltage. Also confused by the expression V=I/R.

73,

Frank

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:10ooc2ou8qgd75@corp.supernews.com...
> Ah, yes, that's one of those simple observations that lures people into
> making false generalizations. I think you'll find that your observation
> isn't true for any length, but only for lengths of a quarter wavelength
> (for a monopole) and shorter. And only for an antenna consisting of a
> single straight wire. Under those conditions, the phase of the current is
> nearly constant along the wire, so the fields from the various parts of
> the antenna add together in phase at a distant point broadside to the
> wire. The maximum field strength is, therefore, proportional to the sum of
> the fields from the individual segments which, in turn, is proportional to
> the integral of the currents on the segments. Since the maximum field
> strength (or gain) doesn't change much from a very short wire to a quarter
> wavelength one, the integral of the current stays pretty constant. But
> don't, for heaven's sake, think you've discovered a rule that applies for
> all antennas. Not even all straight, single wire monopoles.
>
> Roy Lewallen, W7EL
>
> Frank wrote:
>> Concerning current distribution -- at least on a monopole above a
>> perfectly conducting ground. I have noticed that in any antenna, of any
>> length, inductively loaded, or not, the: Integral of I(z)dz (where the
>> units of dz are in fractions of a wavelength, and I(z) the current
>> distribution) is virtually a constant. Assuming the same input power in
>> all cases. Suppose it seems pretty obvious since the total radiated
>> power from any structure is also essentially constant. I must admit I
>> have not seen gain increasing, with decreasing size, but then I have not
>> seriously tried.
>>
>> Regards,

>>
>> Frank

# 1877. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-06 04:06:42 UTC
From: John Smith <kd5yikes@mindspring.com>
Message-ID: <cmhikk01hvb@enews1.newsguy.com>
Source record: 86972

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:monno05hghpf4jni1pneav43247h504255@4ax.com...
> On Fri, 05 Nov 2004 13:57:16 -0600, Cecil Moore <w5dxp@hotmail.com>
> wrote:
>>> The combined effort to suppers the ideas of Kraus and Balanis is getting
>>Darn spellchecker. "suppers" should be "suppress".
>>> more ridiculous with each passing day. It can no longer be explained by
>>> ignorance.
> Blame the spellchecker?

C'mon, Richard. That's a cheap shot beneath even you, I thought.

# 1878. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-06 04:23:52 UTC
From: John Smith <kd5yikes@mindspring.com>
Message-ID: <cmhjkr01jba@enews1.newsguy.com>
Source record: 86973

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:0q6io09iae270qvdpo3iv8hu5muar113jb@4ax.com...
> On Fri, 05 Nov 2004 07:45:16 GMT, Richard Clark <kb7qhc@comcast.net>
> wrote:
>
>>So much for theories of Rr being modified by loading. I would
>>appreciate other effort in kind to correct any oversights I've made
>
> Hi All,
>
> Nothing to offer? I didn't think so. :-)
>
> Well, to enlarge the dialogue (but still reject those who prefer to
> change the topic to what they CAN prove), any -ahem- "explanations?"
>
> 73's
> Richard Clark, KB7QHC

Did you say something, Richard?

# 1879. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-06 04:26:07 UTC
From: John Smith <kd5yikes@mindspring.com>
Message-ID: <cmhjp101jhp@enews1.newsguy.com>
Source record: 86974

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:o4mno05qeonc3qqu85ei6kergielt4e9mg@4ax.com...
> On Fri, 05 Nov 2004 10:45:57 -0800, Jim Kelley <jwkelley@uci.edu>
> wrote:
>
>>I have a question. Can you express the mathematical and/or physical
>>relationship between Rr and antenna gain? It would sure help to clarify
>>the point you were trying to make.
>
> Hi Jim,
>
> I would have thought someone else could, given the bandwidth of
> discussion in making the current taper shorter and the constant
> current section longer. Testing does not bear their facile
> relationship out however, and for the topic of a short antenna
> (otherwise, why are we talking about loading coils?) it would seem
> that antenna gain is immutable over several octaves below a
> quarterwave length.
>
> Of course, I coulda done something wrong. I did use a commonly
> available design. I did use a commonly available modeler. I even may
> have done the wrong thing in choosing a design that could be evaluated
> for free. Perhaps I erred in providing the cogent details of
> construction. It took all of 20 minutes to accomplish (far less time
> than that expended in theories of current-in/current-out). These
> technical hurdles appear to have set the bar too high for my work's
> refutation in kind. I appreciate that "it's hard work!" ;-)
>
> To answer your question, if you just abandon the perfect load, then
> you stand to achieve a higher gain. If you shorten the antenna, then
> you stand to achieve a higher gain. There is no change in Rr with the
> addition of Xl. Hence the mathematical relationship for an antenna
> shorter than quarterwave would be suggested as:
> gain ~ 1/Rr
> gain ~ 1/Xl
> Rr <> Z
>
> Don't take this gain to the bank however.
>
> 73's
> Richard Clark, KB7QHC

Oh... This is about gain? No wonder I'm confused about the subject.

# 1880. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-06 04:40:13 UTC
From: John Smith <kd5yikes@mindspring.com>
Message-ID: <cmhkjg01keo@enews1.newsguy.com>
Source record: 86976

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:10oo2lslspcv196@corp.supernews.com...
> I'm sorry, but I can't make any sense out of your response, so I'm unable
> to answer your question.
>
> Roy Lewallen, W7EL
>

Richard does that a lot, doesn't he?

> Richard Clark wrote:
>
>> On Fri, 05 Nov 2004 13:06:40 -0800, Roy Lewallen <w7el@eznec.com>
>> wrote:
>>
>>
>>>What makes you think that the Rr isn't changing?
>>
>>
>> Hi Roy,
>>
>> With what?
>>
>> I have offered a very ascetic report of very simple actions from very
>> simple terms. You have chosen to change those terms to fit your own
>> answer (I do not choose to put this into the context of a perfect
>> world). Please offer effort in kind, or point out what error I've
>> made instead of what error I might have made if something were changed
>> from my model.
>>
>> 73's
>> Richard Clark, KB7QHC

# 1881. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-06 04:56:00 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <13koo0p5a6isrmnopmktiu9o07h2ae3u43@4ax.com>
Source record: 86975

On Sat, 06 Nov 2004 02:34:32 GMT, "Frank" <ve6cb@NOSPAM.telus.net>
wrote:

>Regarding Richard's comments "Assuming the same currents". Not sure I
>understand, since the feed-point current varies with constant power

Hi Frank,

That is quite simple. The file VERT1.EZ has as a source, a constant
current generator - a fact I pointed out in the summary of my results.
Your presumption of constant power is a natural one for the sake of
common discussion, but it is not even the default source for EZNEC.

[However, having said that, a curiosity of program design has found
that the concept of a "new file" has been orphaned. Any time the
application is opened, it is opened with LAST.EZ and I cannot recall
upon initial acquisition if EZNEC ever started with a blank slate.
Given that you cannot have less than 1 wire nor 1 source, then there
is on way to force a blank file. Hence the concept of a default
resides in the last file opened.]

In other words, each and every iteration of antenna, irrespective of
its presumed or actual Rr or drivepoint Z had the same current applied
to it, 1 Ampere.

Now, if ANY resistance had changed, it then follows that the POWER
would have changed too (which presents us with that puzzle
>confused by the expression V=I/R.
that came out of the blue) at a linear rate (1ï¿½ = 1).

Note, a doubling of drivepoint Z by the addition of a load does not
result in 3dB gain over the former design. I have seen I * I * R
bandied about as an "explanation" and yet at least 3dB is remarkably
absent in the results. What R is this that everyone speaks of?
Certainly not the real component of drivepoint Z. What about the Rr
that must've changed? Copper loss absorb it? Ground loss?

As I offered, I must've done something wrong, taken the wrong turn,
interpreted the modeler in error, -ahem- not read the help file....

I will bet it was that last one - which only reveals no one has. ;-)

[aside]
So, Wes, I will amend my ways and delve into that treasure of
knowledge before returning your work in kind (no point in retread
effort) sometime tomorrow morning.

[to the audience]
C'mon folks, this has to be an especially simple resolution - I'm glad that so many are just as flummoxed (even Reg is uncharacteristically silent in this regard :-)

73's
Richard Clark, KB7QHC

# 1882. Re: Project Argus

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-06 05:15:18 UTC
From: w9gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <G5Zid.370568$D%.175590@attbi_s51>
Source record: 86977
Cross-posted to: alt.war.nuclear,rec.radio.amateur.antenna

"rtinio" <rtinio@sysmatrix.net> wrote in message
news:c8b223ca.0411050008.7893d05b@posting.google.com...
>I am interested on the effect of a HANE (High Altitude Nuclear
> Explosion) ionization effect (not EMP)on UHF to SATCOM frequencies up
> to 300GHZ. There was a naval experiment called Project Argus back in
> the late 50's investigating the effect of a HANE on radio
> communication and radar. Of course, back then no one was using UHF
> and SATCOM.

If you "google" search on Project Argus and James Van Allen's work related
to his earlier discovery ("inner"and "outer" radiation belts with Explorer I
and III) and work (Aurora work with Navy and rocketoons) .. there is some
commentary that may be of interest.

>
> Except from a document dating back from the 80's dealing with MX-1 C3
> which was very vague, there is not much data on this phenomena.
>

# 1883. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-06 05:17:20 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <dqmoo0ttb217913g7a2i6id3ni81dokolg@4ax.com>
Source record: 86978

On Fri, 5 Nov 2004 22:06:42 -0600, "John Smith"
<kd5yikes@mindspring.com> wrote:
>C'mon, Richard. That's a cheap shot beneath even you, I thought.

Hi John,

Your exposure to cheap shots is clearly shallow. ;-)

73's
Richard Clark, KB7QHC

# 1884. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-06 05:21:38 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10oonr51c5c4368@corp.supernews.com>
Source record: 86979

I'd be glad to help clarify any confusion, but I can't for the life of me figure out what the confusion is about.

Regarding EZNEC's sources, you have the option of using a constant-current source, constant-voltage source, or having a fixed power applied to the model. If a fixed power level is chosen, multiple sources will have the same ratio of voltages and currents as you've specified. For example, if your model has two sources, one of 1 amp and the other 2 amps, and you choose a fixed power level, the current from the second source will always be twice the current from the first (and at the specified relative phase), but both will be modified as necessary to produce the total power you specified.

Fixed power is selected in the Options menu. While the relative source currents (2 amps and 1 amp in the example) are saved with the model, the Options menu choices aren't. They're applied to all models. Changes you make in the Options menu remain effective until you end the program. If you choose "Save as Default" from the Options menu, the current settings will remain in effect even after you end the program, until you change them.

I don't personally use a fixed power level very often, since I'm more often interested in things like currents on wires relative to a source, so it's convenient for me to set the source to 1 amp. The fixed power level is useful whenever you need an absolute value of voltage or current, though, or want to see how the voltage, current, or load power dissipation changes as you modify the model. It can be helpful in understanding radiation resistance, by illustrating the relationship among feepoint power, current, and resistance.

Just what is it that's confusing about radiation resistance and EZNEC results? Richard's EZNEC results are exactly what I'd expect, and they're consistent with theory. (I'm talking about established theory found in textbooks, not ones cooked up by people who don't understand basic principles or common nomenclature.) The small gain change due to the ground reflection reaction to altered current distribution was admittedly a surprise, but it makes perfect sense after a moment's thought. If someone can summarize what seems to be wrong, I'll do my honest best to explain it. Is the problem that the gain doesn't go up with Rr? Of course it doesn't, in the nearly lossless antennas of Richard's models. Why should it? I tried to explain why in my earlier posting, but I'll try again if that's what the problem is.

Roy Lewallen, W7EL

Richard Clark wrote:

> On Sat, 06 Nov 2004 02:34:32 GMT, "Frank" <ve6cb@NOSPAM.telus.net>
> wrote:
>
>
>>Regarding Richard's comments "Assuming the same currents". Not sure I
>>understand, since the feed-point current varies with constant power
>
>
> Hi Frank,
>
> That is quite simple. The file VERT1.EZ has as a source, a constant
> current generator - a fact I pointed out in the summary of my results.
> Your presumption of constant power is a natural one for the sake of
> common discussion, but it is not even the default source for EZNEC.
>
> [However, having said that, a curiosity of program design has found
> that the concept of a "new file" has been orphaned. Any time the
> application is opened, it is opened with LAST.EZ and I cannot recall
> upon initial acquisition if EZNEC ever started with a blank slate.
> Given that you cannot have less than 1 wire nor 1 source, then there
> is on way to force a blank file. Hence the concept of a default
> resides in the last file opened.]
>
> In other words, each and every iteration of antenna, irrespective of
> its presumed or actual Rr or drivepoint Z had the same current applied
> to it, 1 Ampere.
>
> Now, if ANY resistance had changed, it then follows that the POWER
> would have changed too (which presents us with that puzzle
>
>>confused by the expression V=I/R.
>
> that came out of the blue) at a linear rate (1ï¿½ = 1).
>
> Note, a doubling of drivepoint Z by the addition of a load does not
> result in 3dB gain over the former design. I have seen I * I * R
> bandied about as an "explanation" and yet at least 3dB is remarkably
> absent in the results. What R is this that everyone speaks of?
> Certainly not the real component of drivepoint Z. What about the Rr
> that must've changed? Copper loss absorb it? Ground loss?
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> As I offered, I must've done something wrong, taken the wrong turn,
> interpreted the modeler in error, -ahem- not read the help file....
>
> I will bet it was that last one - which only reveals no one has. ;-)
>
> [aside]
> So, Wes, I will amend my ways and delve into that treasure of
> knowledge before returning your work in kind (no point in retread
> effort) sometime tomorrow morning.
>

> [to the audience]
> C'mon folks, this has to be an especially simple resolution - I'm glad
> that so many are just as flummoxed (even Reg is uncharacteristically
> silent in this regard :-)
>
> 73's
> Richard Clark, KB7QHC

# 1885. Re: Project Argus

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-06 05:24:10 UTC
From: w9gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <_dZid.360430$MQ5.105069@attbi_s52>
Source record: 86980
Cross-posted to: alt.war.nuclear,rec.radio.amateur.antenna

"rtinio" <rtinio@sysmatrix.net> wrote in message
news:c8b223ca.0411050008.7893d05b@posting.google.com...
>I am interested on the effect of a HANE (High Altitude Nuclear
> Explosion) ionization effect (not EMP)on UHF to SATCOM frequencies up
> to 300GHZ. There was a naval experiment called Project Argus back in
> the late 50's investigating the effect of a HANE on radio
> communication and radar. Of course, back then no one was using UHF
> and SATCOM.
>
> Except from a document dating back from the 80's dealing with MX-1 C3
> which was very vague, there is not much data on this phenomena.

Start your research here (Project Argus and Project Starfish)
http://www.earthpulse.com/haarp/background.html

also here
http://www.globalpolicy.org/socecon/envronmt/weapons.htm

# 1886. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-06 06:03:06 UTC
From: Wes Stewart <n7ws_@_yahoo.com>
Message-ID: <9lpoo0l8s5pu8j0l8d582aqdtc907j2fn2@4ax.com>
Source record: 86981

On Thu, 4 Nov 2004 08:08:00 -0600, richardharrison@webtv.net (Richard Harrison) wrote:

|Wes, N7WS wrote:
|"Could you describe in more detail what the "pictures" are saying."
|
|My edition of "Low-Band DXing" is copyrighted in 1994.
|
|The "pictures" are graphs of current distribution on (6) different
|1/4-wave vertical antennas:
|1) full size
|2) base loaded 1/8-wave of wire
|3) capacitive hat loaded 1/8-wave
|4) center loaded 1/16-wave wire above & below
|5) continuously loaded (all coil) antenna
|6) combined top and base loading of short vertical

Okay, I guessed correctly. This is fig. 9-40 in the third edition.
|
|The current distribution graphs are in a section (2.1) titled
|"Radiation Resistance"

Figure 9-44
|
|In every case , the current tapers lower from feedpoint end to the
|loading coil`s end nearer the open end of the antenna. Devoldere
|discusses the various loading methods.

Yes, but as I mentioned in my analysis at:

http://www.qsl.net/n7ws/Loaded%20antennas.htm

for the extremely short antennas that were (are) the subject of the "shootout" business, the current actually increases between the ends of the inductor.

# 1887. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-06 06:05:49 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <418c67cd_4@127.0.0.1>
Source record: 86982

Richard Clark wrote:
> Cecil Moore <w5dxp@hotmail.com> wrote:
>>Darn spellchecker. "suppers" should be "suppress".
>
> Blame the spellchecker?

Yep, it changed "supress" to "suppers".
--
73, Cecil http://www.qsl.net/w5dxp

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# 1888. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-06 06:17:34 UTC
From: richardharrison@webtv.net
Message-ID: <18676-418C6C7E-143@storefull-3252.bay.webtv.net>
Source record: 86983

John Smith wrote:
"Oh...This is about gain?"

Don`t think so. This is about unequal currents into and out of an antenna loading coil. The effect a loading coil has on received signals is due at least in part to its effect on radiation resistance versus total (radiation + loss) resistance. If you increase radiation resistance as comared with loss resistance you increase effective radiated power. Directive gain has nothing to do with loss.

Here is Terman`s comment on gain in Note 2 on page 870 of his 1955 edition:
"Directive gain depends entirely on the distribution in space of radiated power. The power input to the antenna, the antenna losses, or the power consumed in a terminating resistance have nothing to do with directive gain. Such factors are taken into account in terms of the power gain of the antenna which is defined as the ratio of the power input to the comparison antenna required to develop a particular field strength in the direction of maximum radiation, to the power input that must be delivered to the directional antenna to obtain the same field strength in the same direction. Unless otherwise specified the comparison antenna is a lossless isotropic radiator."

Best regards, Richard Harrison, KB5WZI

# 1889. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-06 06:29:04 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <418c6d40$1_3@127.0.0.1>
Source record: 86984

Roy Lewallen wrote:
> This is indeed an interesting result, even though it's small. As a
> dipole or monopole gets shorter than a resonant length, the current
> distribution changes from sinusoidal to triangular.

Actually, it just moves to a straighter portion of the sinusoidal
curve. The cosine curve from 75 degrees to 90 degrees does resemble
a triangle but it is not a straight line. Assuming a triangle from
75 deg to 90 deg is a simplified shortcut that introduces almost a
1% error at 82.5 deg.
--
73, Cecil http://www.qsl.net/w5dxp

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# 1890. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-06 06:43:21 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <418c709b$1_1@127.0.0.1>
Source record: 86985

Roy Lewallen wrote:
> Under those conditions, the phase of the current
> is nearly constant along the wire, so the fields from the various parts
> of the antenna add together in phase at a distant point broadside to the
> wire.

And remember, that's the net current, i.e. the current in the standing
wave. It, as a net stand alone entity, is not flowing anywhere. It is
merely the phasor sum of two traveling waves traveling in opposite
directions. The phase of the forward current and the phase of the
reflected current are changing in the normal traveling wave manner.
But since their phases are rotating in opposite directions, their
net phasor sum results in very little phase shift. In fact, Kraus
shows zero phase shift for the standing wave current on an
infinitesimally thin wire.
--
73, Cecil http://www.qsl.net/w5dxp

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# 1891. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-06 06:57:28 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10ooteqgi2auj1d@corp.supernews.com>
Source record: 86986

Almost 1%! Holy moly!

You're correct that the distribution is only approximately triangular. But since a difference between a full quarter sine wave and a true triangular distribution results in less than a 0.5 dB difference in field strength, a 1% difference between a true triangular distribution and the end of a sine wave will make a difference in gain, efficiency, or feedpoint impedance that would be entirely negligible and in fact impossible to measure. For that matter, the current distribution on a wire of finite diameter isn't really a sine wave anyway, but a close approximation (although very possibly not within 1%). So the current distribution on a short antenna is triangular for any practical purpose.

Roy Lewallen, W7EL

Cecil Moore wrote:

> Roy Lewallen wrote:
>
>> This is indeed an interesting result, even though it's small. As a
>> dipole or monopole gets shorter than a resonant length, the current
>> distribution changes from sinusoidal to triangular.
>
>
> Actually, it just moves to a straighter portion of the sinusoidal
> curve. The cosine curve from 75 degrees to 90 degrees does resemble
> a triangle but it is not a straight line. Assuming a triangle from
> 75 deg to 90 deg is a simplified shortcut that introduces almost a
> 1% error at 82.5 deg.

# 1892. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-06 07:01:30 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <418c74da$1_3@127.0.0.1>
Source record: 86987

Wes Stewart wrote:
> for the extremely short antennas that were (are) the subject of the
> "shootout" business, the current actually increases between the ends
> of the inductor.

Heh, heh, the helix feature in EZNEC shows the same thing. So here's
a question for all the "constant current" gurus. How can the current
in the middle of the loading coil be a greater magnitude than the
current at either end?

Hint: it happens all the time in distributed networks. I can design
an antenna with a loading coil that has one amp at one end and zero
amps at the other end. The forward current and reflected current
are simply 180 degrees out of phase at the end where the net current
is zero and thus a current node (minimum) is developed.

A naive person would say one amp is flowing into one end and zero
amps is flowing out the other end. But standing wave current doesn't
flow. This is W8JI's basic mistake in his explanation on his web page.
The standing wave current is an artifact caused by the superposition
of two traveling waves, traveling in opposite directions at the speed
of light. For a 1/4WL antenna, there is a standing wave current antinode
at the feedpoint and a standing wave current node at the tip of the antenna.
--
73, Cecil http://www.qsl.net/w5dxp

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# 1893. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-06 07:08:22 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <418c7676$1_1@127.0.0.1>
Source record: 86988

Roy Lewallen wrote:
> Almost 1%! Holy moly!

Aren't you the same Roy Lewallen who raked me over the coals
for using a simplified shortcut? (The devil made me do it. :-)
--
73, Cecil http://www.qsl.net/w5dxp

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# 1894. ARRL 2005 Handbook, still need the article

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-06 07:30:43 UTC
From: Paul Jordan <pauljordan@gci.net>
Message-ID: <10oovigmj6kcoc0@corp.supernews.com>
Source record: 86989

I'm trying to get a copy of the article in the ARRL 2005 handbook for building a 60 meter transciever. I haven't been able to buy a copy locally here and I want to get started on this kit.

Any help would be greatly appreciated.

Paul Jordan
kl0an
Anchorage, AK

# 1895. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-06 07:45:27 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <030po09fjlj5j5g3gqs4dmfjmf9bqntjnk@4ax.com>
Source record: 86990

On Sat, 06 Nov 2004 00:05:49 -0600, Cecil Moore <w5dxp@hotmail.com>
wrote:
>Yep, it changed "supress" to "suppers".
An expensive Bank Shot....

# 1896. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-06 09:01:09 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10op4mpcco1j21a@corp.supernews.com>
Source record: 86991

I hope most readers can tell the difference between an approximation or simplification that we understand and that produces negligible and unmeasurable errors, from one that's based on invalid premises and leads to major errors.

Roy Lewallen, W7EL

Cecil Moore wrote:

> Roy Lewallen wrote:
>
>> Almost 1%! Holy moly!
>
>
> Aren't you the same Roy Lewallen who raked me over the coals
> for using a simplified shortcut? (The devil made me do it. :-)

# 1897. Facts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-06 11:09:10 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cmibcl$bmm$1@hercules.btinternet.com>
Source record: 86992

Fact 1.

Any loading coil of finite length contributes towards to the total
radiation.

Fact 2.

The input and output currents of a loading coil of finite length are always
different from each other.

Fact 3.

The radiation pattern of a short vertical is fixed and remains independent
of the location/height of the loading coil.

Fact 4.

Computer programs do not tell gospel truths. They are at least as
unreliable as their human programmers.

---
Reg.

# 1898. Re: ARRL 2005 Handbook, still need the article

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-06 12:37:35 UTC
From: Dave <noone@nowhere.com>
Message-ID: <weSdnc-Q_ZUJWBHcRVn-vA@crocker.com>
Source record: 86993

you can order the book from www.arrl.org.

"Paul Jordan" <pauljordan@gci.net> wrote in message
news:10oovigmj6kcoc0@corp.supernews.com...
> I'm trying to get a copy of the article in the ARRL 2005 handbook for
> building a 60 meter transciever. I haven't been able to buy a copy
> locally here and I want to get started on this kit.
>
> Any help would be greatly appreciated.
>
> Paul Jordan
> kl0an
> Anchorage, AK

# 1899. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-06 13:39:35 UTC
From: Frank <ve6cb@NOSPAM.telus.net>
Message-ID: <ru4jd.64643$E93.18029@clgrps12>
Source record: 86994

Now I understand the confusion. I am not using EZNEC, and am not familiar with the program. My analysis is written in NEC code. I do have access to some graphical results with the use of NEC-Win Pro, but have taken the NEC output file and imported it to an Excel spread sheet (NEC-Win Pro's simplified data entry formats do not recognize cards such as 'GH" and "GM" so am forced to resort to direct code entry). For a constant power input I therefore have to read the input impedance results, then calculate the required "Peak" Voltage for the desired power -- note that NEC requires all voltages and currents to be peak values.

If anybody is interested I have uploaded the models to my wife's business web site (she will probably kill me when she finds out!). The models show the current distribution of two 84" monopoles; one of which is loaded with a 6" long, 12 turn helix, of 2.5" diameter. The other is unloaded. The ground is defined as "Perfect". The input power is set at 100 W. Just looking at the curves led me to the (mostly) wrong conclusion (verified with numerical integration of the Excel data) that the Integral of I(z)dz is a constant. The results are posted at www.carolyns-creations.com/ve6cb

Regards,

Frank

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:10oonr51c5c4368@corp.supernews.com...
> I'd be glad to help clarify any confusion, but I can't for the life of me
> figure out what the confusion is about.
>
> Regarding EZNEC's sources, you have the option of using a constant-current
> source, constant-voltage source, or having a fixed power applied to the
> model. If a fixed power level is chosen, multiple sources will have the
> same ratio of voltages and currents as you've specified. For example, if
> your model has two sources, one of 1 amp and the other 2 amps, and you
> choose a fixed power level, the current from the second source will always
> be twice the current from the first (and at the specified relative phase),
> but both will be modified as necessary to produce the total power you
> specified.
>
> Fixed power is selected in the Options menu. While the relative source
> currents (2 amps and 1 amp in the example) are saved with the model, the
> Options menu choices aren't. They're applied to all models. Changes you
> make in the Options menu remain effective until you end the program. If
> you choose "Save as Default" from the Options menu, the current settings
> will remain in effect even after you end the program, until you change
> them.

>
> I don't personally use a fixed power level very often, since I'm more
> often interested in things like currents on wires relative to a source, so
> it's convenient for me to set the source to 1 amp. The fixed power level
> is useful whenever you need an absolute value of voltage or current,
> though, or want to see how the voltage, current, or load power dissipation
> changes as you modify the model. It can be helpful in understanding
> radiation resistance, by illustrating the relationship among feepoint
> power, current, and resistance.
>
> Just what is it that's confusing about radiation resistance and EZNEC
> results? Richard's EZNEC results are exactly what I'd expect, and they're
> consistent with theory. (I'm talking about established theory found in
> textbooks, not ones cooked up by people who don't understand basic
> principles or common nomenclature.) The small gain change due to the
> ground reflection reaction to altered current distribution was admittedly
> a surprise, but it makes perfect sense after a moment's thought. If
> someone can summarize what seems to be wrong, I'll do my honest best to
> explain it. Is the problem that the gain doesn't go up with Rr? Of course
> it doesn't, in the nearly lossless antennas of Richard's models. Why
> should it? I tried to explain why in my earlier posting, but I'll try
> again if that's what the problem is.
>
> Roy Lewallen, W7EL
>
> Richard Clark wrote:
>
>> On Sat, 06 Nov 2004 02:34:32 GMT, "Frank" <ve6cb@NOSPAM.telus.net>
>> wrote:
>>
>>
>>>Regarding Richard's comments "Assuming the same currents". Not sure I
>>>understand, since the feed-point current varies with constant power
>>
>>
>> Hi Frank,
>>
>> That is quite simple. The file VERT1.EZ has as a source, a constant
>> current generator - a fact I pointed out in the summary of my results.
>> Your presumption of constant power is a natural one for the sake of
>> common discussion, but it is not even the default source for EZNEC.
>> [However, having said that, a curiosity of program design has found
>> that the concept of a "new file" has been orphaned. Any time the
>> application is opened, it is opened with LAST.EZ and I cannot recall
>> upon initial acquisition if EZNEC ever started with a blank slate.
>> Given that you cannot have less than 1 wire nor 1 source, then there
>> is on way to force a blank file. Hence the concept of a default
>> resides in the last file opened.]
>>

>> In other words, each and every iteration of antenna, irrespective of
>> its presumed or actual Rr or drivepoint Z had the same current applied
>> to it, 1 Ampere.
>>
>> Now, if ANY resistance had changed, it then follows that the POWER
>> would have changed too (which presents us with that puzzle
>>
>>>confused by the expression V=I/R.
>>
>> that came out of the blue) at a linear rate (1² = 1).
>>
>> Note, a doubling of drivepoint Z by the addition of a load does not
>> result in 3dB gain over the former design. I have seen I * I * R
>> bandied about as an "explanation" and yet at least 3dB is remarkably
>> absent in the results. What R is this that everyone speaks of?
>> Certainly not the real component of drivepoint Z. What about the Rr
>> that must've changed? Copper loss absorb it? Ground loss?
>>
>> As I offered, I must've done something wrong, taken the wrong turn,
>> interpreted the modeler in error, -ahem- not read the help file....
>>
>> I will bet it was that last one - which only reveals no one has. ;-)
>>
>> [aside]
>> So, Wes, I will amend my ways and delve into that treasure of
>> knowledge before returning your work in kind (no point in retread
>> effort) sometime tomorrow morning. [to the audience]
>> C'mon folks, this has to be an especially simple resolution - I'm glad
>> that so many are just as flummoxed (even Reg is uncharacteristically
>> silent in this regard :-)
>>
>> 73's
>> Richard Clark, KB7QHC

# 1900. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-06 13:55:34 UTC
From: Frank <ve6cb@NOSPAM.telus.net>
Message-ID: <qJ4jd.64644$E93.34211@clgrps12>
Source record: 86995

As mentioned in an earlier post. I have analyzed an 84" monopole, at 21.3 MHz, with and without loading coils. To view the graphical results of current distribution go to www.carolyns-creations.com/ve6cb These data are placed without comment, since I cannot intelligently add to the ongoing arguments of current distribution.

Regards,

Frank

"Cecil Moore" <w5dxp@hotmail.com> wrote in message news:418c74da$1_3@127.0.0.1...
> Wes Stewart wrote:
>> for the extremely short antennas that were (are) the subject of the
>> "shootout" business, the current actually increases between the ends
>> of the inductor.
>
> Heh, heh, the helix feature in EZNEC shows the same thing. So here's
> a question for all the "constant current" gurus. How can the current
> in the middle of the loading coil be a greater magnitude than the
> current at either end?
>
> Hint: it happens all the time in distributed networks. I can design
> an antenna with a loading coil that has one amp at one end and zero
> amps at the other end. The forward current and reflected current
> are simply 180 degrees out of phase at the end where the net current
> is zero and thus a current node (minimum) is developed.
>
> A naive person would say one amp is flowing into one end and zero
> amps is flowing out the other end. But standing wave current doesn't
> flow. This is W8JI's basic mistake in his explanation on his web page.
> The standing wave current is an artifact caused by the superposition
> of two traveling waves, traveling in opposite directions at the speed
> of light. For a 1/4WL antenna, there is a standing wave current antinode
> at the feedpoint and a standing wave current node at the tip of the
> antenna.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>
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> News==----
> http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000
> Newsgroups
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# 1901. please need help with delta loop antenna better matching system than gamma match

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-06 14:07:35 UTC
From: Silvio <silvioylstra@hotmail.com>
Message-ID: <cmilr3$qbh$1@news-02.connect.com.au>
Source record: 86996

hi..........
please need help with delta loop antenna better matching system than gamma match.............. please could any body sugest any thing or way to match a vee quad , dela loop other than gamma match and my be supply me with details how to assemble and fit to antenna .........gee some must no a better way.. please help me 73s .......... thanks every one that may be able to help ..... silvioylstra@hotmail.com

# 1902. Re: Facts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-06 14:30:28 UTC
From: Frank <ve6cb@NOSPAM.telus.net>
Message-ID: <8e5jd.64743$E93.37159@clgrps12>
Source record: 86997

As posted in a previous thread go to www.carolyns-creations.com/ve6cb to
view the (modeled) current distribution on an 84" monopole at 21.3 MHz.

Frank

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:cmibcl$bmm$1@hercules.btinternet.com...
> Fact 1.
>
> Any loading coil of finite length contributes towards to the total
> radiation.
>
> Fact 2.
>
> The input and output currents of a loading coil of finite length are
> always
> different from each other.
>
> Fact 3.
>
> The radiation pattern of a short vertical is fixed and remains independent
> of the location/height of the loading coil.
>
> Fact 4.
>
> Computer programs do not tell gospel truths. They are at least as
> unreliable as their human programmers.
>
> ----
> Reg.
>
>

# 1903. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-06 15:07:23 UTC
From: Bart Rowlett <bart@wb6hqk.ampr.org>
Message-ID: <418CE8AB.3050302@wb6hqk.ampr.org>
Source record: 86998

Cecil Moore wrote:

>
> The decrease (drop) in current across a loading coil installed in
> a standing-wave antenna does NOT in any way violate Kirchhoff's current
> law.

True.

>One can imply from Kirchhoff's current law that there is no current
> decrease (drop) across a point.

By 'point' I believe you are referring to what is commonly referred to as a node. Kirchoff's current law stipulates that charge may not accumulate at nodes. Therefore by definition, any feature of the system where charge accumulation needs to be considered is not a node. This makes sense since charge must accumulate on a surface (surface charge density) (coul / meter squared) or in a dielectric volume (volume charge density) (coul / meter cubed). Both concepts require some sort of area or volume which is inconsistant with the notion of a node.

>I don't know anyone who disagrees with
> that so any argument is just a straw man. Kirchhoff never said the
> current at one point in a network had to equal the current at another
> point in the network.

The currents through two nodes connected in series, without branches, is identical. I think that fact was established before Kirchoff but it's certainly stipulated in circuit theory.

> Many patches have been added to the DC circuit model to try to adapt
> it to RF networks.

Many? Seems to me that the concept of electric displacement introduced by Maxwell provides everything needed to extend DC theory all the way through classical electromagnetics. What am I missing?

>Some function after a fashion and some fail utterly.

Like what?

> We all need to be able to recognize the difference. For EM waves, the
> E-field and H-field are often affected in the same way.

Huh?

>Saying that
> the E-field voltage drops but the H-field current doesn't drop is

> simply nonsense.

Saying the electric field voltage drops is nonsense. Voltage is the scalar potential defined as the electric potential difference between two points in space.

The electric field is vector field, characterized as having a field strength in volts per meter dependant on spatial location, direction, and perhaps time.

I don't understand what the term 'E-field voltage drop' could mean. Same with 'H-field current drop'.

>Likewise, saying that the H-field current flows and
> the E-field voltage doesn't flow is nonsense.

H-field current flows?

The field H (amps per meter), is the so called magnemotive field. It doesn't flow anymore than voltage flows through a resistor, and is associated with the generation of magnetic flux. The magnetic flux density, B, has the units of webers per meter squared and can be integrated over an arbitrary surface to evaluate the total magnetic flux passing through that surface. Magnetic flux is somewhat analogous to current but H is not at all.

The E-field and H-field
> are usually inseparable.

In the classical electromagnetic model, E & H are completely separable. They are coupled via Faraday's law, and Maxwell's so called displacement current. At steady state (DC) no coupling exists. When one field quantity _varies_ in time, so will the other in accordance with the curl equations. The coupling described by the time varying part of the curl equations only involves the time varying components.

When determining the analysis method used to gather insight into a physical system, one of the first considerations is to determine if the time varying field components need to be considered, and if so, which ones. For example, analysis of a 60 Hz power supply choke, or electric motor, usually ignores the electric field in the air gap arising from the time varying magnetic flux density. It's not important in the gap, but is the driver of undesirable eddy currents in the core laminations.

bart
wb6hqk

## 1904. PL-259 loss?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-06 15:59:39 UTC
From: Ken Bessler <kg0wx@NOSPAMyahoo.com>
Message-ID: <fx6jd.14008$Vz4.4519@okepread01>
Source record: 87008

I'm aware that the PL-259 has loss but what I'd
like to find out is how much loss at 146 & 450 mHz?

Anyone know?

Ken KG0WX

# 1905. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-06 16:13:59 UTC
From: John Smith <kd5yikes@mindspring.com>
Message-ID: <cmit8f0d02@enews3.newsguy.com>
Source record: 87000

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:dqmoo0ttb217913g7a2i6id3ni81dokolg@4ax.com...
> On Fri, 5 Nov 2004 22:06:42 -0600, "John Smith"
> <kd5yikes@mindspring.com> wrote:
>>C'mon, Richard. That's a cheap shot beneath even you, I thought.
>
> Hi John,
>
> Your exposure to cheap shots is clearly shallow. ;-)
>
> 73's
> Richard Clark, KB7QHC

Yes, Master.

# 1906. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-06 16:25:30 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <418cf90d_5@127.0.0.1>
Source record: 86999

Roy Lewallen wrote:
> I hope most readers can tell the difference between an approximation or
> simplification that we understand and that produces negligible and
> unmeasurable errors, from one that's based on invalid premises and leads
> to major errors.

It follows that if you choose not to make an effort to understand a
valid premise, according to you, it is still worthless.

Do standing wave antennas possess standing waves? (no answer) Kraus and
Balanis say "yes". Are those standing waves composed of forward and reflected
waves? (no answer) Kraus and Balanis say "yes". Why does Kraus say that, for
purposes of conceptual discussion, we can consider those waves to be equal?
(no answer) If it's good enough for Kraus, why isn't it good enough for you?
(no answer) Do you actually disagree with Kraus? (no answer) Why does Balanis
state that standing wave antennas can be conceptually analyzed by representing
the forward current as If and the backward current as Ib? (no answer) All I have
done is follow Kraus' and Balanis' suggestions. You finding fault with that is
amazing.

Conceptual solutions are very often not quantitized. "The sun is
the center of the solar system" is a conceptual solution and was
not quantitized for many, many years. What I have been saying is
based on what Kraus and Balanis wrote. There is no "major error"
because it is just a concept akin to lossless lines and ideal
inductors.

And just how do you explain the fact that your very own EZNEC agrees
with me when the loading is done by the helix method or the series stub
method? Sacred cows die hard, huh?
--
73, Cecil http://www.qsl.net/w5dxp

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# 1907. Re: Loop antenna electrostatic shields

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-06 16:35:15 UTC
From: Tom <noname@noprovider.nodomain>
Message-ID: <737jd.409$sD1.183@trnddc02>
Source record: 87001

The 'slit' in the shield allows a voltage difference to exist across the
slit.
If there were no voltage difference, then you could short the slit with
no change in performance.

Thus the shield acts like a short dipole, with the ends bend up to almost
touch one another. There is a voltage gradient along this short shield
(dipole),
and current flow along the length of the shield (dipole).

The loop inside the shield thus is coupled to this short dipole. Multiple
turns of the loop 'add' (increase) the voltage since the dipole (shield) is
short compared to the wavelength.

Thus, the shield IS the antenna, and the loop is the means to couple the
energy out of the short dipole. Thus, it really isn't a magnetic antenna at
all - it's a dipole!

Tom, W8JI has a better, more detailed explanation at his website (a great
resource) at http://www.w8ji.com/magnetic_receiving_loops.htm

"Joel Kolstad" <JKolstad71HatesSpam@Yahoo.Com> wrote in message
news:XqednfBGoctGSBbcRVn-iw@comcast.com...
> When you build a loop antenna, it's common to wrap it in, e.g., aluminum
> foil that's grounded so as to prevent electric field pick-up (I'm thinking
> of HF loops here, <30MHz). A slit is made in the wrapping so that a
> shorted turn isn't created, thereby nulling out the magnetic field that
> the loop is trying to detect in the first place.
>
> Something I don't understand, though... normally, if you were thinking of
> using aluminum for EMI shielding purposes, the skin depth of aluminum at
> 10MHz is all of ~1mil. Hence, a regular sheet of aluminum foil would
> significantly attenuate both the magnetic and electric fields on its 'far'
> side. Why doesn't this apply in the case of a shielded loop antenna? It
> seems to me that the ~95+% 'coverage' of the shield (everything minus the
> slit to prevent the shorted turn) would be what dictates the overall
> shielding effectiveness, not the presence of the slit itself.
>
> Looking for insight,
> ---Joel Kolstad
>
>

# 1908. Re: Facts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-06 16:51:18 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <418cff15$1_3@127.0.0.1>
Source record: 87003

Reg Edwards wrote:
> The input and output currents of a loading coil of finite length are always
> different from each other.

There's hardly any "input and output currents" for a loading coil in
a standing wave antenna. That concept is why W8JI is in trouble with
his explanations. What is actually being measured is the magnitude
of the standing current wave.

There is forward current flowing into the bottom of the coil and out
the top. There is reflected current flowing into the top of the coil
and out the bottom. The net current is a standing current wave. If we,
as Kraus suggests, assume that the forward current equals the reflected
current (relatively small error in doing so) then there is zero net current
flowing in and out of the coil. The standing wave current is, well, just
standing there and is not "going" anywhere.

The gross error that a lot of people are making is that standing
wave current flows. If the forward and reflected currents are equal,
as Kraus assumes for purpose of discussion, then there is zero net
current flow through the coil. Yet, net current is what everyone
is measuring. What they are actually measuring is the value of
the standing wave current at each end of the coil and it is not
flowing. It is only an artifact of the superposition of the two
waves that are flowing.

The magnitude of the reflected current can be estimated from the
feedpoint impedance. The lower the feedpoint impedance, the closer
in magnitude is the reflected current to the forward current. For
a center-loaded mobile antenna, the reflected current through the
coil appears to be well within 5% of the value of the forward
current.
--
73, Cecil http://www.qsl.net/w5dxp

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# 1909. Re: ARRL 2005 Handbook, still need the article

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-06 16:52:04 UTC
From: w9gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <Ui7jd.372209$D%.120854@attbi_s51>
Source record: 87002

"Paul Jordan" <pauljordan@gci.net> wrote in message
news:10oovigmj6kcoc0@corp.supernews.com...
> I'm trying to get a copy of the article in the ARRL 2005 handbook for
> building a 60 meter transciever. I haven't been able to buy a copy
> locally here and I want to get started on this kit.
>
> Any help would be greatly appreciated.
>
> Paul Jordan
> kl0an
> Anchorage, AK

Paul -

I just pulled down my hardbound 2005 Handbook, this is a Dave Benson
(ex-NN1G) Small Wonder Labs kit (which will include these instructions), BUT
the references for source code, PC board and other Internet links to the SWL
web page are NOT working !!
http://www.smallwonderlabs.com/

I have e-mailed Dave to inquire and report the problem. This project also
has surface mount components -- do you have the board?

w9gb

# 1910. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-06 17:19:03 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <0g1qo0ld9n6qaj1l2aj9787gn4h9iergcc@4ax.com>
Source record: 87004

On Sat, 06 Nov 2004 10:25:30 -0600, Cecil Moore <w5dxp@hotmail.com>
wrote:
> "The sun is the center of the solar system" is a conceptual solution and was
>not quantitized for many, many years.
And when it was, the "conceptual solution" was shown to be in error.
The center of the solar system is a point about which the mass of the
sun AND the planets all turn. The difference is miniscule but such
differences being ignored would result in navigational errors in
traversing the solar system - which is Roy's point about the
significance of error being ignored where it is important.

## 1911. PL-259 loss rate?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-06 17:30:55 UTC
From: Ken Bessler <kg0wx@NOSPAMyahoo.com>
Message-ID: <uS7jd.15068$Vz4.14651@okepread01>
Source record: 87005

I'm aware that the PL-259 has loss but what I'd
like to find out is how much loss at 146 & 450 mHz?

Anyone know?

Ken KG0WX

# 1912. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-06 18:02:36 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <418d0fcc$1_1@127.0.0.1>
Source record: 87006

Bart Rowlett wrote:
> The currents through two nodes connected in series, without branches, is
> identical. I think that fact was established before Kirchoff but it's
> certainly stipulated in circuit theory.

Let's deal with concrete examples. Assume a lossless, unterminated transmission line. Because of the standing waves, the net current in that series loop varies from point. It is zero every 1/2WL and in between those zero points, it is at a maximum. That's all I was trying to say - that the series current in a distributed network with standing waves is not constant because it no longer can be considered a "circuit". It must be considered a network as it is an appreciable portion of a wavelength. The phases of the forward current and reflected current are rotating in opposite directions which causes their superposition magnitude to vary from minimum to maximum. The magnitudes of the forward and reflected traveling wave currents can be constant while their phasor sum varies as a standing wave sinusoid.

Most of the stuff in this posting is a diversion away from the original argument which is: Does the current through a 75m bugcatcher vary from end to end? Since the net current is the standing wave current in a standing wave antenna, it is mostly standing wave current, not traveling wave current. Kraus even suggests that we can consider the forward current equal to the reflected current in a standing wave antenna for purposes of conceptual discussion which means the net current is not moving at all, i.e. not flowing into the bottom of the coil and out the top as assumed by W8JI on his web page. Balanis clearly states that a standing wave antenna can be analyzed based on the forward current and the backward current.

Simulations with EZNEC using the helix option indicates that the net current is not the same at each end of a bugcatcher coil. Essentially the same result occurs using a series inductive stub.
--
73, Cecil http://www.qsl.net/w5dxp

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# 1913. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-06 18:07:47 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <418d1105_2@127.0.0.1>
Source record: 87007

Richard Clark wrote:

> Cecil Moore <w5dxp@hotmail.com> wrote:
>>"The sun is the center of the solar system" is a conceptual solution and was
>>not quantitized for many, many years.
>
> And when it was, the "conceptual solution" was shown to be in error.
> The center of the solar system is a point about which the mass of the
> sun AND the planets all turn. The difference is miniscule but such
> differences being ignored would result in navigational errors in
> traversing the solar system - which is Roy's point about the
> significance of error being ignored where it is important.

Being such a nickpicker, why don't you object to the gross errors
(50%) introduced by using the circuit theory math model on a distributed
network problem?
--
73, Cecil http://www.qsl.net/w5dxp

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# 1914. Re: PL-259 loss?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-06 18:38:47 UTC
From: Keyboard In The Wilderness <Key@Kennel.net>
Message-ID: <YS8jd.117520$hj.41780@fed1read07>
Source record: 87009

Your answer may be found at URL:
http://lists.contesting.com/archives/html/TenTec/2004-05/msg00258.html

--
The Anon Keyboard
I doubt, therefore I might be

"Ken Bessler" <kg0wx@NOSPAMyahoo.com> wrote in message
news:fx6jd.14008$Vz4.4519@okepread01...
> I'm aware that the PL-259 has loss but what I'd
> like to find out is how much loss at 146 & 450 mHz?
>
> Anyone know?
>
> Ken KG0WX
>
>
>

# 1915. Transmission Lines & Electrical Code

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-06 19:18:00 UTC
From: gibberdill <gibberdill@bak.rr.com>
Message-ID: <Ir9jd.44017$hN1.34919@twister.socal.rr.com>
Source record: 87010

I have a new house and my main concern is not having my homeowner's
insurance nullified in the case of fire because of my ham radio setup.

I have regular coax running 100 watts through the attic.

1)Is this a violation of the National Electrical Code?

NA4G wrote:

"The National Electrical Code requires 4 inch creepage distances
and clearances between any transmitter conductor inside the building
and normal interior electrical lines. It also requires 2 foot clearance
between antennas and leadins and any other electrical lines outside.
It also requires 3 inch creepage and airgap distances beween the the
antenna and leadin lines and any building surface. The requirement
for the ``insulating support'' is nonabsorbent treated pins or brackets
with insulators having not less than 3 inch creepage and airgap distances.
(reference N.E.C. Section 810)."
( From: Robert D. Keys (rdkeys@seedlab1.cropsci.ncsu.edu)
Subject: Re: best stand offs for ladder line?

Newsgroups: rec.radio.amateur.antenna
Date: 1998/04/02 )

I may wish to go to higher power, maybe 1000 Watts and run ladder line (450
Ohm window-line) outside the house.
3-inch standoffs outside the house are a cosmetic problem.

2) Is there a safe way to run the ladder line through portions of the attic?
What about housing it in 1" PVC pipe and maintaining at least 4 inch
creepage distance within the attic? Is PVC prohibited in the attic?

3) If a 3-inch airgap distance is required between the leadin lines and any
building surface, wouldn't that require at least a 6-inch hole in the wall
of the building to bring the line in? There must be another explanantion...

I'm sure this sort of thing has come up in the past!

# 1916. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-06 19:34:09 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <cj9qo0ti2fq5sqq9k8svk1okn4j68nvf1o@4ax.com>
Source record: 87011

On Sat, 06 Nov 2004 12:07:47 -0600, Cecil Moore <w5dxp@hotmail.com>
wrote:
>Being such a nickpicker, why don't you object to the gross errors
>(50%) introduced by using the circuit theory math model on a distributed
>network problem?
I Object to ALL of your raging inconsistencies. :-)

# 1917. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-06 19:52:03 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <418d2971$1_1@127.0.0.1>
Source record: 87012

Richard Clark wrote:
> I Object to ALL of your raging inconsistencies. :-)

But not to Roy's or Tom's. One wonders why.
--
73, Cecil http://www.qsl.net/w5dxp

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# 1918. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-06 19:59:19 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <m1bqo0lb6gol6lh7pdn325sjuulrp45bki@4ax.com>
Source record: 87013

On Sat, 06 Nov 2004 13:52:03 -0600, Cecil Moore <w5dxp@hotmail.com>
wrote:
>> I Object to ALL of your raging inconsistencies. :-)
>But not to Roy's or Tom's. One wonders why.
Probably because you don't pay attention. Others certainly don't
wonder.

# 1919. Re: Facts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-06 20:03:57 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cmjand$lcn$1@hercules.btinternet.com>
Source record: 87014

"Frank" wrote
> As posted in a previous thread go to www.carolyns-creations.com/ve6cb to
> view the (modeled) current distribution on an 84" monopole at 21.3 MHz.
>
==========

Frank, I don't know, and it doesn't matter, how you produced the amperes versus height graph which beautifully displayed itself with a single mouse-click on my computer screen.

It displays the curve-shape which any properly educated electrical engineer, or amateur with any intuitive common sense, ought to expect. Thanks!

The many reams of heated arguments which have appeared on this newsgroup have been a disgrace to the profession. Yes, I know its an amateur mewsgroup but the (aggressive?) contestents are mostly so-called professionals.

Clearly you have chosen an adequate mathematical demonstration model with the ability to use it. Most likely without any thoughts about Terman or theorem-writers Thevenin and Kirchoff, etc., who personally I have hardly ever heard of.

If you have not already done so, may I suggest you include radiation resistance in the model for slightly greater accuracy. It may remove the small kink in your curve which occurs immediately at the bottom end of the coil. I don't think it should be there. But further elaboration is hardly worth the effort.

I also think its a good idea to base demonstration models (like actual experimental measurements) on the lower frequencies. Try the 160 metre band. They are likely to be more accurate representations.

Frank, if you have the time to spare perhaps you should contribute to this newsgroup more often. Improve its already good entertainment, even educational if sometimes confusing, value!

By the way, I'm on Dourthe No.1, Bordeaux 2001, tonight. French politics go down very well with their excellent wine and British very mature Cheddar cheese.

Hic!
----
Reg, G4FGQ

# 1920. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-06 20:29:38 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cmjc7i$f6c$1@titan.btinternet.com>
Source record: 87015

> >W5DXP wrote:
> >>I'm chugging Franzia Merlot while cleaning my Colt Python .357 Magnum
> >>and Winchester 30-30 Lever-Action Carbine. :-)
> >
> > After shooting a rattler do you, Hollywood-fashion, put the weapon to
your
> > lips and blow the smoke out of the barrel? ;o)
>
> I'm not that primitive, Reg. I use commercial ammo with smokeless
> powder.
> --
> 73, Cecil, W5DXP
==========

Ah, I see, modern high-technology smokeless and odorless powders do not betray your postion to the rattler if you miss him first time.

At night, have you tried infra-red telescopic sights?

But by now rattle snakes must be becoming, like Bengal tigers and red indians, an endanged species. ;o)
----
Reg.

# 1921. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-06 20:40:09 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cmjcr9$mtl$1@sparta.btinternet.com>
Source record: 87016

> Balanis
> clearly states that a standing wave antenna can be analyzed based
> on the forward current and the backward current.
>
==========

Who the heck is "Balony" Never heard of him or her.
----
Reg

# 1922. Re: Facts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-06 20:43:05 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <418d3567$1_2@127.0.0.1>
Source record: 87017

Reg Edwards wrote:
> By the way, I'm on Dourthe No.1, Bordeaux 2001, tonight.

I hear the French are pi$$ed at us for our small boycott of
French wine, French vacations, French Fries, etc. :-) Ever
notice that us and US mean the same thing for us?
--
73, Cecil http://www.qsl.net/w5dxp

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# 1923. Re: please need help with delta loop antenna better matching system than gamma match

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-06 20:49:18 UTC
From: John Smith <kd5yikes@mindspring.com>
Message-ID: <cmjdch0bpa@enews4.newsguy.com>
Source record: 86922

"Silvio" <silvioylstra@hotmail.com> wrote in message
news:cmilr3$qbh$1@news-02.connect.com.au...
> hi.....
> please need help with delta loop antenna better matching system than gamma
> match..... please could any body sugest any thing or way to match
> a
> vee quad , dela loop other than gamma match and my be supply me with
> details
> how to assemble and fit to antenna .....gee some must no a better
> way..
> please help me 73s ..... thanks every one that may be
> able
> to help ..... silvioylstra@hotmail.com
>

Hi, Silvio -

I am not very good at antennas and such, but I'll give it a shot.

EZNEC says a delta loop fed at the vertex (at the bottom) appears as about 122 Ohms at resonance. You could use a 1:1 balun and a quarter wave piece of 75 Ohm coax and then 50 Ohm coax for the remainder of the trip to your transmitter. At the 75/50 Ohm point your impedance would appear as 46 Ohms. This would give you an SWR of about 1.08:1.

If you do not have 75 Ohm coax, you could instead insert an open stub of about .381 wavelengths at about .159 wavelengths below the balun using all 50 Ohm coax.

And then there is the possibility of using open wire line with a tuner.

Hopefully, I did all this correctly. If not, I hope someone else will jump in here and correct me.

Good luck.

John

# 1924. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-06 20:55:37 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <dTajd.5520$zx1.4643@newssvr13.news.prodigy.com>
Source record: 87018

Reg Edwards wrote:
>>Balanis
>>clearly states that a standing wave antenna can be analyzed based
>>on the forward current and the backward current.
>>
>
> ================================
>
> Who the heck is "Balony" Never heard of him or her.
> ----
> Reg
>
>

That's because you never read.
73,
Tom Donaly, KA6RUH

# 1925. Re: Facts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-06 20:57:43 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <bVajd.5524$zx1.2134@newssvr13.news.prodigy.com>
Source record: 87019

Cecil Moore wrote:

> Reg Edwards wrote:
>
>> By the way, I'm on Dourthe No.1, Bordeaux 2001, tonight.
>
>
> I hear the French are pi$$ed at us for our small boycott of
> French wine, French vacations, French Fries, etc. :-) Ever
> notice that us and US mean the same thing for us?

I'm boycotting Texas. No Texas bugcatchers for me, they're
unamerican.
73,
Tom Donaly, KA6RUH

# 1926. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-06 20:59:58 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <418d395d$1_5@127.0.0.1>
Source record: 86921

Reg Edwards wrote:
> Ah, I see, modern high-technology smokeless and odorless powders do not
> betray your postion to the rattler if you miss him first time.

I would never kill a life form except in self defense or by
accident. I was actually one of the older California hippies
in the 70's, full of peace and free love.
--
73, Cecil http://www.qsl.net/w5dxp

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# 1927. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-06 21:02:00 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <cZajd.18684$6q2.5193@newssvr14.news.prodigy.com>
Source record: 87020

Reg Edwards wrote:

>> >W5DXP wrote:
>>
>>>>I'm chugging Franzia Merlot while cleaning my Colt Python .357 Magnum
>>>>and Winchester 30-30 Lever-Action Carbine. :-)
>>>
>>>After shooting a rattler do you, Hollywood-fashion, put the weapon to
>
> your
>
>>>lips and blow the smoke out of the barrel? ;o)
>>
>>I'm not that primitive, Reg. I use commercial ammo with smokeless
>>powder.
>>--
>>73, Cecil, W5DXP
>
> ========================================
>
> Ah, I see, modern high-technology smokeless and odorless powders do not
> betray your postion to the rattler if you miss him first time.
>
> At night, have you tried infra-red telescopic sights?
>
> But by now rattle snakes must be becoming, like Bengal tigers and red
> indians, an endanged species. ;o)
> ----
> Reg.
>
>
>
>

Rattlesnakes shouldn't mind being killed, since, after they die,
they're immediately reincarnated as Republicans. Come to think of
it,though,
maybe they should mind after all.
73,
Tom Donaly, KA6RUH

# 1928. Re: Transmission Lines & Electrical Code

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-06 21:13:46 UTC
From: Dave <noone@nowhere.com>
Message-ID: <qI2dnY5FpN8ToxDcRVn-3w@crocker.com>
Source record: 86923

"gibberdill" <gibberdill@bak.rr.com> wrote in message
news:Ir9jd.44017$hN1.34919@twister.socal.rr.com...
> I have a new house and my main concern is not having my homeowner's
> insurance nullified in the case of fire because of my ham radio setup.
>
> I have regular coax running 100 watts through the attic.
>
> 1)Is this a violation of the National Electrical Code?
>
> NA4G wrote:
>
> "The National Electrical Code requires 4 inch creepage distances
> and clearances between any transmitter conductor inside the building
> and normal interior electrical lines. It also requires 2 foot clearance
> between antennas and leadins and any other electrical lines outside.
> It also requires 3 inch creepage and airgap distances beween the the
> antenna and leadin lines and any building surface. The requirement
> for the ``insulating support'' is nonabsorbent treated pins or brackets
> with insulators having not less than 3 inch creepage and airgap distances.
> (reference N.E.C. Section 810)."
> ( From: Robert D. Keys (rdkeys@seedlab1.cropsci.ncsu.edu)
> Subject: Re: best stand offs for ladder line?
>
>
>
>
> Newsgroups: rec.radio.amateur.antenna
> Date: 1998/04/02 )
>
> I may wish to go to higher power, maybe 1000 Watts and run ladder line
(450
> Ohm window-line) outside the house.
> 3-inch standoffs outside the house are a cosmetic problem.
>
> 2) Is there a safe way to run the ladder line through portions of the
attic?
> What about housing it in 1" PVC pipe and maintaining at least 4 inch
> creepage distance within the attic? Is PVC prohibited in the attic?

unfortunately i don't have a copy of the code at home and don't often use it
for this type of stuff anyway. but if the creepage distance is what i seem
to remember, that is the length of the insulating standoff that is holding
the wire. so no, putting it in a 1" pipe wouldn't work, you need to have a
3" or 4" creepage length insulator.... creepage length if i remember right

is measured along the surface of the insulator, so if the surface has grooves or ridges it is actually longer than the straight line length. hard to explain, but it measures the length a current would travel if there was dirt or moisture on the surface of the insulator. the requirement for a 3" airgap would mean you need at least a 6" + wire spacing conduit with the wire held in the center by appropriate length insulators.

>
> 3) If a 3-inch airgap distance is required between the leadin lines and any
> building surface, wouldn't that require at least a 6-inch hole in the wall
> of the building to bring the line in? There must be another explanantion...

yeah, except as noted above, if the wire spacing is 1" for the ladder line the hole would be 7" by 6"... great fun these codes aren't they!

>
> I'm sure this sort of thing has come up in the past!
>
>
>

# 1929. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-06 21:26:21 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <418d3fcc_2@127.0.0.1>
Source record: 86924

Reg Edwards wrote:

>>Balanis
>>clearly states that a standing wave antenna can be analyzed based
>>on the forward current and the backward current.
>
> Who the heck is "Balony" Never heard of him or her.

:-) Balanis is my Arizona State University professor who directed
my thinking along these lines. He's the author of a textbook titled:
"Antenna Theory, Analysis and Design" that has come to be a later
reference than some of the Kraus, Jasik, Terman stuff. You can
obtain a copy of his book on Amazon.com for only $119. A web
search for "Constantine A. Balanis" turned up three pages of
lists of web pages.
--
73, Cecil http://www.qsl.net/w5dxp

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# 1930. Re: Facts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-06 21:29:42 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <418d4054$1_2@127.0.0.1>
Source record: 86926

Tom Donaly wrote:
> I'm boycotting Texas. No Texas bugcatchers for me, they're
> unamerican.

I heard the Texas Bugcatcher guy is an SK so he probably
doesn't care.
--
73, Cecil http://www.qsl.net/w5dxp

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# 1931. Re: Transmission Lines & Electrical Code

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-06 21:29:57 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cmjfol$qjj$1@sparta.btinternet.com>
Source record: 86925

Unless you intend to run 10 kilowatts of RF power, try to completely forget all about your hopelessly imagined problems. Don't lose any sleep. Just use ordinary electric wires and cables and run them wherever you fancy. Just like domestic 110-volt power cables.

I've been running 100 watts over 20-gauge plastic insulated wire through 1/8" holes in dry, inflammable, wooden window frames for nigh on 25 years and never yet burned the house down.

# 1932. FA: Diamond 144/220 base antenna - X2200A

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-06 21:57:38 UTC
From: AK2F <ak2f@verizon.net>
Message-ID: <mNbjd.2168$EM3.73@trndny07>
Source record: 86927
Cross-posted to: rec.radio.amateur.antenna,rec.radio.swap

For Auction up on eBay is an essentially new Diamond X2200A base antenna.
This is a 144/220 base station vertical that is about 8 ft long. Assembled
it and put it on the roof for a few hours to test. Took it down and put it
back in the package so it's almost new.

http://cgi.ebay.com/ws/eByISAPI.dll?ViewItem&rd=1&item=5729169943&ssPageName=STRK:MESE:IT

Auction ends sunday night. Presently at $59

73,
Woody

# 1933. Re: Transmission Lines & Electrical Code

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-06 22:50:55 UTC
From: gibberdill <gibberdill@bak.rr.com>
Message-ID: <jzcjd.79953$KI3.36168@twister.socal.rr.com>
Source record: 86928

Thank you for your reply.

Actually, I am not afraid that I will start a fire.

I am afraid that a fire might start for some other reason, and that my insurance company won't pay my claim because of unrelated code violations.

So again, let me ask:

What must a homeowner do regarding ham transmision lines so as to avoid code violations?

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message news:cmjfol$qjj$1@sparta.btinternet.com...
> Unless you intend to run 10 kilowatts of RF power, try to completely
> forget
> all about your hopelessly imagined problems. Don't lose any sleep. Just
> use
> ordinary electric wires and cables and run them wherever you fancy. Just
> like domestic 110-volt power cables.
>
> I've been running 100 watts over 20-gauge plastic insulated wire through
> 1/8" holes in dry, inflammable, wooden window frames for nigh on 25 years
> and never yet burned the house down.
>
>

# 1934. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-06 23:07:40 UTC
From: Lee Hopper <leehopp@centurytel.net>
Message-ID: <418D593C.7030803@centurytel.net>
Source record: 86929

Cecil Moore wrote:
> I was actually one of the older California hippies
> in the 70's, full of peace and free love.

Cecil -

I'd like to see a picture, please.

73 - Lee H, NB7F

# 1935. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-06 23:48:43 UTC
From: k3bu@aol.comNoUsama
Message-ID: <20041106184843.06349.00000112@mb-m27.aol.com>
Source record: 86930

>
>Rattlesnakes shouldn't mind being killed, since, after they die,
>they're immediately reincarnated as Republicans. Come to think of
>it,though,
>maybe they should mind after all.
>73,
>Tom Donaly, KA6RUH
>

That says it all!

Cecil, you are arguing with brainwashed liberals. I escaped from that crap, but it haunts me here, even on the radio internet waves.

Viva Bush!

Yuri da BUm

# 1936. Re: Facts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-07 00:01:13 UTC
From: k3bu@aol.comNoUsama
Message-ID: <20041106190113.06349.00000113@mb-m27.aol.com>
Source record: 86931

W5DXP wrote:
>>There is forward current flowing into the bottom of the coil and out the top. There is reflected current flowing into the top of the coil and out the bottom. The net current is a standing current wave.<<

In view of the above, for practical putposes, trying to get maximum performance out of the loaded radiator, it should be beneficial to have the same diameter of whip above the coil, rather than tapering whip?
One might deduct that if the current is diminishing towards the top, that the diameter of the radiator (RF resistance) could be tapered also. But since the RF current has to flow to the tip and then reflect and go back and interfere with itself, we should make it uniform, where possible.
We are probably talking about fraction of a peanut, but for the purists and sake of argument.

Yuri, K3BU.us

# 1937. Re: Facts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-07 00:04:32 UTC
From: matt wilson <mwilson2@nospam.bigpond.net.au>
Message-ID: <kEdjd.21442$K7.15639@news-server.bigpond.net.au>
Source record: 86933

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:cmibcl$bmm$1@hercules.btinternet.com...
Fact 1.

Any loading coil of finite length contributes towards to the total
radiation.

NEWSFLASH - there's no such thing as a perfect inductor. Amazing!

Fact 2.

The input and output currents of a loading coil of finite length are always
different from each other.

A natural consequence of fact #1.

Fact 3.

The radiation pattern of a short vertical is fixed and remains independent
of the location/height of the loading coil.

Not so, precisely because said inductor cannot be perfect. HOWEVER, the
difference is neglegible and probably immeasureable.

Fact 4.

Computer programs do not tell gospel truths. They are at least as
unreliable as their human programmers.

Ahh, but at least they are *consistantly* unreliable in predictable ways,
which is more than can be said for humans.

---
Reg.

# 1938. Re: Transmission Lines & Electrical Code

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-07 00:05:14 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10oqplthjntgpad@corp.supernews.com>
Source record: 86932

The requirements for amateur radio stations are in Article 810 of the NEC. My copy of the NEC is 14 years old, so I wouldn't want to quote it. A google search of

NEC 810 amateur

produced quite a few hits, some with direct quotes from the NEC. I suggest you take a look at a few of them. Considering how seriously you take the matter, and the possible cost of doing it wrong, I don't think you should depend on newsgroup answers to your question. You should see for yourself just what the NEC says.

I also suggest that you contact your city, county, or state electrical inspection department. It's possible that one or more of those jurisdictions have requirements differing from, or going beyond, the NEC. They also might have a copy of the NEC and local codes that you could look at and/or photocopy. And, they should be able to answer any questions requiring interpretation.

If your electrical inspection office can't provide a copy of the NEC for you to look at, you might consider shelling out $100 - $200 to buy one. It doesn't change much from year to year, so you might be willing to settle for a previous year's copy which I'm sure you can find at a substantially reduced price. Or, excerpts might be available at a lower price yet -- a web search would be the best way to find them.

Roy Lewallen, W7EL

gibberdill wrote:
> Thank you for your reply.
>
> Actually, I am not afraid that I will start a fire.
>
> I am afraid that a fire might start for some other reason, and that my
> insurance company won't pay my claim because of unrelated code violations.
>
> So again, let me ask:
>
> What must a homeowner do regarding ham transmision lines so as to avoid code
> violations?

# 1939. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-07 00:18:00 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10oqqdrimilrd6a@corp.supernews.com>
Source record: 86934

Frank wrote:
> Now I understand the confusion. I am not using EZNEC, and am not familiar
> with the program. . .

You can download a free demo version of EZNEC from http://eznec.com.
It's perfectly adequate for analysis of simple antennas with lumped
loads, and gives you full graphics, the ability to fix the power level,
and all the other features of the full EZNEC program with the single
exception of a 20 segment limit.

The demo version also includes the full EZNEC/EZNEC+/EZNEC pro manual,
and there's no time limit on its use.

Roy Lewallen, W7EL

# 1940. Re: PL-259 loss rate?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-07 00:20:03 UTC
From: matt wilson <mwilson2@nospam.bigpond.net.au>
Message-ID: <TSdjd.21485$K7.1417@news-server.bigpond.net.au>
Source record: 86935

"Ken Bessler" <kg0wx@NOSPAMyahoo.com> wrote in message
news:uS7jd.15068$Vz4.14651@okepread01...
I'm aware that the PL-259 has loss but what I'd
like to find out is how much loss at 146 & 450 mHz?

Anyone know?

Ken KG0WX

It depends on a whole lot of factors, not least of which is the quality of the connector and how accurately it is assembled. For 70cm, losses are typically around 0.7 - 0.8 dB. This might not seen like a lot until the number of connectors is added up.A base station with a main co-ax run, a socket terminated antenna, and 2 co-ax tails has 4 connections. That adds up to 3dB, or half your signal lost before you even look at the co-ax losses. By comparasion, a quality N-type is less than 0.1dB.

# 1941. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-07 00:21:52 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <418d68ae$1_4@127.0.0.1>
Source record: 86937

Lee Hopper wrote:

> Cecil Moore wrote:
>> I was actually one of the older California hippies
>> in the 70's, full of peace and free love.
>
> I'd like to see a picture, please.

A picture of the free love?
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
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# 1942. Re: Facts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-07 00:23:17 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10oqqnoilt78kf6@corp.supernews.com>
Source record: 86936

Reg Edwards wrote:
> . . .
> Fact 3.
>
> The radiation pattern of a short vertical is fixed and remains independent
> of the location/height of the loading coil.
>

True for practical purposes. People using antenna modeling programs, or people adept with analytical techniques, will find a small difference in pattern as the loading coil is moved, due to the changed current distribution. But it's an inconsequential difference.

Roy Lewallen, W7EL

# 1943. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-07 00:25:05 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <418d6970$1_5@127.0.0.1>
Source record: 86938

Yuri Blanarovich wrote:
> Cecil, you are arguing with brainwashed liberals.

Well, I'm half liberal. I'm a social liberal so I disagree with Bush.
I'm an economic conservative so I disagree with both Kerry and Bush.
I voted Libertarian.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
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# 1944. Re: Facts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-07 00:35:10 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <418d6bd0$1_5@127.0.0.1>
Source record: 86940

Yuri Blanarovich wrote:

> W5DXP wrote:
>> There is forward current flowing into the bottom of the coil and out
>> the top. There is reflected current flowing into the top of the coil
>> and out the bottom. The net current is a standing current wave.
>
> In view of the above, for practical putposes, trying to get maximum performance
> out of the loaded radiator, it should be beneficial to have the same diameter
> of whip above the coil, rather than tapering whip?

That doesn't help much. What helps is a humongous top hat which does
help to equalize the current at the bottom of the coil and the current
at the top of the coil.

> One might deduct that if the current is diminishing towards the top, that the
> diameter of the radiator (RF resistance) could be tapered also. But since the
> RF current has to flow to the tip and then reflect and go back and interfere
> with itself, we should make it uniform, where possible.
> We are probably talking about fraction of a peanut, but for the purists and
> sake of argument.

Nope, not a fraction of a peanut at all - more like 100% more radiated
power because of that humongous top hat. I'm considering a humongous top
hat for my pickup that runs the length of the truck and is mounted about
a foot above the cab - maybe 50 square feet in all. That would minimize
the size of the loading coil and ensure maximum current in the bottom
section. The maximum height above ground would be about seven feet, a
definite advantage for a mobile antenna around here.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
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# 1945. Re: PL-259 loss rate?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-07 00:35:44 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10oqrf3lqhhg903@corp.supernews.com>
Source record: 86939

I don't see what the mechanism would be for the 0.7 - 0.8 dB loss you quote, even if the connector has a rather poor dielectric. And one with a good dielectric like Teflon wouldn't have any way to cause loss other than conductor skin effect resistance. If anything, I'd expect an N type connector to be slightly (although inconsequentially) lossier due to its smaller diameter center conductor.

What reference do you have that shows this kind of loss for a PL-259? I'd like to look at the test methodology. I'd also like to hear some kind of explanation as to why an N type connector should have less loss than a PL-259.

A PL-259 will of course cause a greater reflection than an N type connector, and this will produce a "mismatch loss" in a system, like a lab test environment, where the source and load impedances are fixed. But nearly any amateur antenna installation has some method of adjusting the match to compensate, which eliminates power delivery reduction due to mismatch. Then, only true loss is important, and I just don't see the mechanism which would cause a PL-259 to be any worse than an N.

Roy Lewallen, W7EL

matt wilson wrote:

> "Ken Bessler" <kg0wx@NOSPAMyahoo.com> wrote in message
> news:uS7jd.15068$Vz4.14651@okepread01...
> I'm aware that the PL-259 has loss but what I'd
> like to find out is how much loss at 146 & 450 mHz?
>
> Anyone know?
>
> Ken KG0WX
>
> It depends on a whole lot of factors, not least of which is the quality of the
> connector and how accurately it is assembled. For 70cm, losses are typically
> around 0.7 - 0.8 dB. This might not seen like a lot until the number of
> connectors is added up.A base station with a main co-ax run, a socket
> terminated antenna, and 2 co-ax tails has 4 connections. That adds up to 3dB,
> or half your signal lost before you even look at the co-ax losses. By
> comparasion, a quality N-type is less than 0.1dB.
>
>
>

## 1946. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-07 00:42:36 UTC
From: k3bu@aol.comNoUsama
Message-ID: <20041106194236.06349.00000114@mb-m27.aol.com>
Source record: 86941

>I'm an economic conservative

So you are half OK :-)

# 1947. Re: Facts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-07 00:46:24 UTC
From: k3bu@aol.comNoUsama
Message-ID: <20041106194624.06349.00000115@mb-m27.aol.com>
Source record: 86942

>
>> In view of the above, for practical putposes, trying to get maximum
>performance
>> out of the loaded radiator, it should be beneficial to have the same
>diameter
>> of whip above the coil, rather than tapering whip?
>
>That doesn't help much. What helps is a humongous top hat which does
>help to equalize the current at the bottom of the coil and the current
>at the top of the coil.

I know about the effect of hat, but I am refering to straight whip loaded
radiator and whip above the coil only. Forget the hats and ties.

Again:
>> One might deduct that if the current is diminishing towards the top, that
the
>> diameter of the radiator (RF resistance) could be tapered also. But since
the
>> RF current has to flow to the tip and then reflect and go back and interfere
>> with itself, we should make it uniform, where possible. (?)

Yuri

# 1948. Re: Transmission Lines & Electrical Code

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-07 00:55:42 UTC
From: Ralph Mowery <rmowery28146@earthlink.net>
Message-ID: <ioejd.2572$_J2.1740@newsread2.news.atl.earthlink.net>
Source record: 86943

"gibberdill" <gibberdill@bak.rr.com> wrote in message
news:Ir9jd.44017$hN1.34919@twister.socal.rr.com...
> I have a new house and my main concern is not having my homeowner's
> insurance nullified in the case of fire because of my ham radio setup.
>
> I have regular coax running 100 watts through the attic.
>
> 1)Is this a violation of the National Electrical Code?
>
>

The ARRL hand book has a few paragraphs on this. It seems that if the coax is grounded you are ok. If not coax then the wire needs to be sujpported 3 inches from the walls on insulators and comes into the building through an insulated tube.

# 1949. Re: please need help with delta loop antenna better matching system than gamma match

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-07 00:58:48 UTC
From: "Larry Gauthier (K8UT)" <MyCallsign@ARRL.NET>
Message-ID: <10oqsqpp8982bdb@corp.supernews.com>
Source record: 86944

Sylvio,

I use full wave delta loops on 30 meters and 40 meters. To match them I use a 1/4 wave 75 ohm feedline. (multiplied times the velocity factor of the coax - about .81)

So, from the back of my radio I have a random length of RG/8 50 ohm coax. Then I insert a 1/4 wave of 75 ohm coax to the antenna. This works quite well for me and results in SWR of 1.1:1.

-larry
K8UT
"Silvio" <silvioylstra@hotmail.com> wrote in message
news:cmilr3$qbh$1@news-02.connect.com.au...
> hi.........
> please need help with delta loop antenna better matching system than gamma
> match.............. please could any body sugest any thing or way to match
> a
> vee quad , dela loop other than gamma match and my be supply me with
> details
> how to assemble and fit to antenna .........gee some must no a better
> way..
> please help me 73s .......... thanks every one that may be
> able
> to help ............. silvioylstra@hotmail.com
>
>
>
>
>

# 1950. Re: Loop antenna electrostatic shields

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-07 01:23:24 UTC
From: k3bu@aol.comNoUsama
Message-ID: <20041106202324.06183.00000113@mb-m27.aol.com>
Source record: 86945

>
>Thus, the shield IS the antenna, and the loop is the means to couple the
>energy out of the short dipole. Thus, it really isn't a magnetic antenna at
>all - it's a dipole!
>
>Tom, W8JI has a better, more detailed explanation at his website (a great
>resource) at http://www.w8ji.com/magnetic_receiving_loops.htm
>
>

Looks like another "debunked" fact by "Tom noname" W8JI.
(Welcome back Tom ?:-)

The shield IS an electrostatic SHIELD and wires inside are the ANTENNA.
If you want good efficient, electrostatically shielded small loop, take copper or aluminum tubing, bend it in a circle about 1m diameter (for around 160m band). I made it of two pieces, joined at the bottom in metal electrical box. Top of the loop is open and insulated with plastic tubing. Then thread wire through the loop, three turns, bring the ends into the junction box and connect trimmer capacitor (about 1.5k ?) across the ends (not connected to anything else). Then thread another single turn loop through the tubing. In the junction box, connect one end to the coax shield and the second end to trimmer capacitor (about 500 pF ?) in series with the center conductor of the coax. Shield and mast holding it can be grounded at the installation place. I actually used low power transmiter and SWR bridge to tune the loop, now there are nice antenna analyuzers to do it.
The three turns are resonated to operating frequency with capacitor and that is the ANTENNA. The single turn loop is the coupling and trimmer provides match to the coax feedline. The tubing is a SHIELD which helps with suppressing the noise and interference from nearby sources.
I have also used this loop as a coupling to Beverage antenna (positioned at the end of Beverage), where it provided less noise than beverage alone.

Don't believe everything you read at W8JI web pages.

I would like to see a short "dipole" (NOT), really short piece of tubing, which is attached to a mast and grounded to act as an antenna on low frequencies. Having small loop, insulated and properly fed or coupled to, is another thing. You can have single loop or turn antenna too, but above described antenna is "magnetic" or electrostatically shielded small loop antenna which provides more signal and better discrimination from nearby interference.

Yuri, K3BU.us

# 1951. Reflectors For H.F. use

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-07 02:21:14 UTC
From: "aunwin@insightbb.com"
Message-ID: <uEfjd.579123$8_6.52336@attbi_s04>
Source record: 86946

For ham radio it is conventional ( my thoughts) to see reflectors as element/s placed behind
a feed element where. like other elements in an array receive radio energy and then reradiate a portion of the received energy.If one wants to emulate a point
radiation then many elements have to be arranged in parabolic fashion such that all R.F.
received or transmitted meet at a common point.

Now I really know didly ######about dishes as my world is made up from Yagis but now
I am starting to think about these things which really raises questions about what I had previously accepted
For instance,
1
Commercial dishes are not made of reflectors with a fraction of a wave length ( surface is smooth)
So we have some how shifted from 'resonation' to a 'reflection' mode as in light even tho a resonance
must still some how occur, but how and with what length reflectors ( multiple long wires?)?
2
If radiation/reception follows a common path then is the dual path radiation as seen with a Yagi (90 degrees apart)
changed ?
3
What would the result be if multiple electrical connection lines were made between the horizontal reflectors (vert refl form)?

The emergency operation is now over after a lousy week in hospital but I am grounded for the rest of the year
( pain and infections and physical inabilities) books and the like is a hard task but the laptop is at hand if I can find suitable links to study.

Plans are complete and parts available for a 20 metre dipole with eight reflectors set in quasi parabolic form to deliver
14.5 dbi.BW 63 degrees which I hope then to reduce to 30 degrees for added gain.
Feed dipole will be of variable length for different band use.
Isn't experimentation great when failure is not considered disasterous to ones self esteem and resume?

Regards
Art

# 1952. Re: Transmission Lines & Electrical Code

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-07 02:48:42 UTC
From: Crazy George <muNnscOh@attSglPobaAl.nMet>
Message-ID: <418d8f86_2@news1.prserv.net>
Source record: 86947

Group:

I just got a flyer from NFPA for the 2005 NEC. Pre release special $65

--
Crazy George
Remove N O and S P A M imbedded in return address

# 1953. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-07 02:57:03 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <lc2ro05t2vtesgk1lm28d5d8o8q9m3ol07@4ax.com>
Source record: 86948

On Fri, 05 Nov 2004 07:45:16 GMT, Richard Clark <kb7qhc@comcast.net>
wrote:
>First I will start with a conventionally sized quarterwave and by
>iteration approach the short antenna and observe effects. I am using
>the model VERT1.EZ that is in the EZNEC distribution and modifying it
>by turns. For instance, I immediately turn on the wire loss.

For this progression, I have amended the design through the addition
of 1 wire, 20M long, 21 segments, Vertically polarized, center loaded
with a 73 Ohm Resistor, 4000M remote from the test antenna, and
elevated 2127M to sample the radiation lobe at an angle of 27ï¿½ which
represents the Best gain angle from previous results (or nearly so).

I further perform readings of the 73 Ohm load under two conditions of
the test antenna. Those conditions are when it is excited by 1A (the
constant current mode) and when it is excited by 36.65W (the constant
power mode). I also include the power into the antenna for the
constant current mode.

>40mm thick radiator 10.3 meters tall:
> Impedance = 36.68 + J 2.999 ohms
>Best gain is
> -0.03dBi
Power = 4.214E-05 watts for 1 A excitation
Power = 4.214E-05 watts for 36.65W

>next iteration:
>cut that sucker in half:
> Impedance = 6.867 - J 301 ohms
>best gain
> 0.16dBi
Power = 7.979E-06 watts for 1A excitation
Total applied power = 6.856 watts for 1A excitation
Power = 4.266E-05 watts for 36.65W excitation

>next iteration:
>load that sucker for grins and giggles:
> load = 605 Ohms Xl up 55%
> Impedance = 13.43 + J 0.1587 ohms
>best gain
> 0.13dBi
Power = 1.559E-05 watts for 1A excitation
Total applied power = 13.41 watts for 1A excitation
Power = 4.262E-05 watts for 36.65W excitation

>next iteration:
>cut that sucker down half again (and remove the load):
> Impedance = 1.59 - J 624.6 ohms
>best gain:
> 0.25dBi
Power = 1.849E-06 watts for 1A excitation
Total applied power = 1.585 watts for 1A excitation
Power = 4.274E-05 watts for 36.65W excitation

>next iteration:
> load = 1220 Ohms Xl up 55%
> Impedance = 3.791 + J 1.232 ohms
>best gain:
> 0.23dBi
Power = 4.407E-06 watts for 1A excitation
Total applied power = 3.78 watts for 1A excitation
Power = 4.272E-05 watts for 36.65W excitation
>
>Now, all of this is for a source that is a constant current generator;
>we've monkeyed with the current distribution and put more resistance
>(Rr?) into the equation with loading; and each time loading craps in
>the punch bowl.
>
>So much for theories of Rr being modified by loading. I would
>appreciate other effort in kind to correct any oversights I've made
>(not just the usual palaver of tedious "explanations" - especially
>those sophmoric studies of current-in/current-out).

Well, now we can review this data in light of my previous
editorializations.

We begin with the premise that Rr is evidenced by the power expressed
by a known current through an unknown (Rr) resistance. We needn't
concern ourselves with the constant power mode as it closely mimics
the former data. In essence, it serves as a validation of the two
models (the previous post and this post).

However, the constant current mode does show a variation in power
received at the sniffer antenna. For a shorter antenna, there is a
corresponding fall in the power. Counter to my editorial observations
above there is an increase in this power received at the sniffer
antenna when a load is applied. The contrast in my former editorial
observation and this data reveals that Yes the Rr is impacted by
loading and that the drivepoint Z is the Rr.

This comes as no surprise to many.

Now, let us return to a point of analytical bias that lead me to
believe no apparent change in Rr was observable. In fact there was no
way to make it observable except through the artifice of my sniffer
antenna. For the model of the constant current generator, it is a
truism that gain (that is true gain for a system and not simply
antenna directivity) must increase for the same excitation. After

all, we are changing the Rr either through the actuality of modified length, or the artifice of a moving, variable load along the short radiator. Such gain is only observable through a circuit (broadcaster lingo for a transmit/receive pair).

In the back of my mind I was troubled about comparing situations in dBi. Yesterday I expressed this as a possible source of confusion for the effects sought in evidence against the obvious gain differential. dBi is a dimensionless relation such that true gain is washed out of the result. When I attempted to confirm my suspicions through field expressions of mv/M for 1KW, I was struck that that too forced the results to a constant power (not constant current) and thus hid the gain demonstration in the same way. I then fell back on my practice of employing a sniffer antenna to test reality and the data is found above confirming the gain that would be expected. In other words, the far field's power followed the diminution of Rr with a positive correlation. It also followed the subsequent increase of Rr (with a load applied to that shortened radiator) with a positive correlation.

73's
Richard Clark, KB7QHC

# 1954. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-07 03:16:53 UTC
From: Frank <ve6cb@NOSPAM.telus.net>
Message-ID: <Fsgjd.68789$E93.3738@clgrps12>
Source record: 86949

Thanks for the info, have downloaded the demo program. Have heard about it from many sources, so have wanted to experiment with the program for some time. I am more familiar with the basic NEC code, and have been using it for years.

Regards,

Frank

"Roy Lewallen" <w7el@eznec.com> wrote in message news:10oqqdrimilrd6a@corp.supernews.com...
> Frank wrote:
>> Now I understand the confusion. I am not using EZNEC, and am not
>> familiar with the program. . .
>
> You can download a free demo version of EZNEC from http://eznec.com. It's
> perfectly adequate for analysis of simple antennas with lumped loads, and
> gives you full graphics, the ability to fix the power level, and all the
> other features of the full EZNEC program with the single exception of a 20
> segment limit.
>
> The demo version also includes the full EZNEC/EZNEC+/EZNEC pro manual, and
> there's no time limit on its use.
>
> Roy Lewallen, W7EL

# 1955. Re: Facts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-07 04:31:00 UTC
From: Frank <ve6cb@NOSPAM.telus.net>
Message-ID: <8yhjd.68891$E93.26465@clgrps12>
Source record: 86950

Thanks for your comments Reg. The fact is my graph is produced in Excel from data provided by a NEC 2 output file generated by few trivial lines of NEC code. I cannot claim to have done anything requiring much thought. I just considered, since so much discussion is centered on current distribution, that some might be interested in the posted curves. So far yours is the only response. I will probably delete the page in a day or so. The loading inductor is 2.5" diameter, 6" long, with turns spaced at 0.5". The NEC code is listed on the site, so anybody can copy to verify the validity of my results -- or the validity of the code.

I have included a conductivity for copper (5.8001E7 S/m), and since the ground is defined as perfect, this accounts for all losses within the model. The program predicts the total radiated power as 95.918 W from 100 W input. The input current is 2.3874 A RMS, and input impedance 17.545 Ohms. The radiation resistance is therefore 16.829 Ohms. (Sorry for all the decimal places, but they produce such nice round numbers). I was also puzzled by the slight increase in current just under the loading coil, but suspect it was caused by coupling between the lower conductor and the base of the coil.

I agree that some experimental data would be good. I have been planning for some time to erect a 160 m vertical, so can see how the predicted results compare. I have also used your software for modeling verticals, and it is in very close to the results produced by NEC. The one problem with NEC 2 (Though not with NEC 4) is that it cannot model buried radials, but can get very close to the ground.

I don't mind an occasional post on this news group, but not sure I can contribute much. I do enjoy reading other people's posts though.

I sure could enjoy a glass of wine with cheese, but have nothing much in my fridge -- except for some old Cheddar.

Regards,

Frank

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message news:cmjand$lcn$1@hercules.btinternet.com...
>
> "Frank" wrote
>> As posted in a previous thread go to www.carolyns-creations.com/ve6cb to
>> view the (modeled) current distribution on an 84" monopole at 21.3 MHz.
>>
> ==========
>
> Frank, I don't know, and it doesn't matter, how you produced the amperes

> versus height graph which beautifully displayed itself with a single
> mouse-click on my computer screen.
>
> It displays the curve-shape which any properly educated electrical
> engineer,
> or amateur with any intuitive common sense, ought to expect. Thanks!
>
> The many reams of heated arguments which have appeared on this newsgroup
> have been a disgrace to the profession. Yes, I know its an amateur
> mewsgroup
> but the (aggressive?) contestents are mostly so-called professionals.
>
> Clearly you have chosen an adequate mathematical demonstration model with
> the ability to use it. Most likely without any thoughts about Terman or
> theorem-writers Thevenin and Kirchoff, etc., who personally I have hardly
> ever heard of.
>
> If you have not already done so, may I suggest you include radiation
> resistance in the model for slightly greater accuracy. It may remove the
> small kink in your curve which occurs immediately at the bottom end of the
> coil. I don't think it should be there. But further elaboration is hardly
> worth the effort.
>
> I also think its a good idea to base demonstration models (like actual
> experimental measurements) on the lower frequencies. Try the 160 metre
> band.
> They are likely to be more accurate representations.
>
> Frank, if you have the time to spare perhaps you should contribute to this
> newsgroup more often. Improve its already good entertainment, even
> educational if sometimes confusing, value!
>
> By the way, I'm on Dourthe No.1, Bordeaux 2001, tonight. French politics
> go
> down very well with their excellent wine and British very mature Cheddar
> cheese.
>
> Hic!
> ----
> Reg, G4FGQ
>
>

# 1956. Re: Loop antenna electrostatic shields

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-07 05:01:18 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <y_hjd.5712$zx1.3405@newssvr13.news.prodigy.com>
Source record: 86951

Yuri Blanarovich wrote:
>>Thus, the shield IS the antenna, and the loop is the means to couple the
>>energy out of the short dipole. Thus, it really isn't a magnetic antenna at
>>all - it's a dipole!
>>
>>Tom, W8JI has a better, more detailed explanation at his website (a great
>>resource) at http://www.w8ji.com/magnetic_receiving_loops.htm
>>
>>
>
>
> Looks like another "debunked" fact by "Tom noname" W8JI.
> (Welcome back Tom ?:-)
>
> The shield IS an electrostatic SHIELD and wires inside are the ANTENNA.
> If you want good efficient, electrostatically shielded small loop, take copper
> or aluminum tubing, bend it in a circle about 1m diameter (for around 160m
> band). I made it of two pieces, joined at the bottom in metal electrical box.
> Top of the loop is open and insulated with plastic tubing. Then thread wire
> through the loop, three turns, bring the ends into the junction box and connect
> trimmer capacitor (about 1.5k ?) across the ends (not connected to anything
> else). Then thread another single turn loop through the tubing. In the junction
> box, connect one end to the coax shield and the second end to trimmer capacitor
> (about 500 pF ?) in series with the center conductor of the coax. Shield and
> mast holding it can be grounded at the installation place. I actually used low
> power transmiter and SWR bridge to tune the loop, now there are nice antenna
> analyuzers to do it.
> The three turns are resonated to operating frequency with capacitor and that is
> the ANTENNA. The single turn loop is the coupling and trimmer provides match to
> the coax feedline. The tubing is a SHIELD which helps with suppressing the
> noise and interference from nearby sources.
> I have also used this loop as a coupling to Beverage antenna (positioned at the
> end of Beverage), where it provided less noise than beverage alone.
>
> Don't believe everything you read at W8JI web pages.
>
> I would like to see a short "dipole" (NOT), really short piece of tubing, which
> is attached to a mast and grounded to act as an antenna on low frequencies.
> Having small loop, insulated and properly fed or coupled to, is another thing.
> You can have single loop or turn antenna too, but above described antenna is
> "magnetic" or electrostatically shielded small loop antenna which provides more
> signal and better discrimination from nearby interference.
>
> Yuri, K3BU.us

Don't believe everything you read here, either. For a good treatise on how the shielded loop works, and what it's good for, read Glenn S. Smith's (Georgia Institute of Technology) article "Shielded Loop Antenna" in Richard C. Johnson's _Antenna Engineering Handbook_.
73,
Tom Donaly, KA6RUH

# 1957. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-07 05:16:52 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <8dijd.39363$QJ3.25915@newssvr21.news.prodigy.com>
Source record: 86952

Yuri Blanarovich wrote:

>>Rattlesnakes shouldn't mind being killed, since, after they die,
>>they're immediately reincarnated as Republicans. Come to think of
>>it,though,
>>maybe they should mind after all.
>>73,
>>Tom Donaly, KA6RUH
>>
>
>
> That says it all!
>
> Cecil, you are arguing with brainwashed liberals. I escaped from that crap, but
> it haunts me here, even on the radio internet waves.
>
> Viva Bush!
>
> Yuri da BUm

I'd like to apologize for that statement. If I offended any
good, God-fearing, American rattlesnakes by that post, I'd
like them to know that I'm sorry and it won't happen again.
There are some things that are just too low to compare anything
to.
73,
Tom Donaly, KA6RUH

# 1958. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-07 05:25:37 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <hibro01kg1nfs0qm96e9gbmfqb3detb0rv@4ax.com>
Source record: 86953

On Fri, 05 Nov 2004 18:51:01 -0700, Wes Stewart <n7ws_@_yahoo.com>
wrote:
>I believe it is your contention that loading to resonance with an
>arbitrarily positioned inductor, or not loading at all, does not
>affect the gain, and the radiation resistance is not the same as the
>changing feedpoint resistance.

Hi Wes,

You show a unique power of observation. English is difficult for many
here.

>I am in the other camp, along with Hansen, Devoldere, et. al. who say
>that the current distribution does affect the radiation resistance
>(and in the real world, the gain/efficiency).

You may have observed of late that recent a posting by me confirms
your understanding.

>I hope you would agree that the normalized gain would be a good proxy
>for efficiency.

I think "normalization" is were things went awry.

>For example if we use the lossless 1/4 wavelength monopole over
>perfect ground as a reference, then gain with respect to that (5.15
>dBi) would be an indicator of efficiency.
>
>I believe that you will agree that the efficiency can be determined
>by:
>
> Rr
>eta = ------------- Eq.1
> Rr + Rg + Rl
>
>where Rr = radiation resistance
> Rg = ground resistance
> Rl = all other resistances (conductor, etc)
>
>I think you would also agree that for the full-sized monopole over
>perfect ground the feedpoint resistance of ~36 Ohm = radiation
>resistance.

My results, all around, did not require perfection, and in fact,
nothing was resolvable through perfection if you would review that
recent post.

>As an old (sorry [g]) metrologist, you're very familiar with
>substitution, so let's set Rl = 0 (lossless case) and eta to 0.5 (-3
>dB). Per Eq. 1, Rg = Rr.

This old metrologist found the very simple answer that eluded others
who simply took it on faith and stumbled for reason. My substitution
resolved the situation (aka the sniffer antenna which served admirably
to function as what you would appreciate as a "transfer standard").

>So in our model, if I add a simulated ground resistance, Rg, that
>reduces the gain by 3 dB, I have by substitution, determined the
>radiation resistance.
>
>Sure enough, if I add a 36 Ohm load at the bottom of the perfect 1/4
>wave monopole, the gain drops to 2.14 dBi, and the feedpoint
>resistance doubles.
>
>I will let you try this with the other cases. I trust you will find
>that the radiation resistance does decrease with shorter radiators
>and/or lower loading points.

I hope I demonstrated your trust was merited.

>I too I would appreciate other effort in kind to correct any
>oversights I've made.

Each in our own way. Sorry to hear about your friend.

73's
Richard Clark, KB7QHC

## 1959. Re: Facts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-07 05:45:09 UTC
From: theplanters95@aol.comnospam
Message-ID: <20041107004509.09653.00000120@mb-m20.aol.com>
Source record: 86954

According to his website, he is still alive.

Randy

# 1960. Re: Reflectors For H.F. use

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-07 05:48:18 UTC
From: Fiona Reynolds <nospam@nospam.com>
Message-ID: <2v5r8lF2h4ssaU1@uni-berlin.de>
Source record: 86955

"aunwin@insightbb.com" <aunwin@insightbb.com@insightbb.com> wrote in message
news:uEfjd.579123$8_6.52336@attbi_s04...
> For ham radio it is conventional ( my thoughts) to see reflectors as
> element/s placed behind
> a feed element where. like other elements in an array receive radio
energy
> and then reradiate a portion of the received energy.If one wants to
emulate
> a point
> radiation then many elements have to be arranged in parabolic fashion such
> that all R.F.
> received or transmitted meet at a common point.
>
> Now I really know didly #####about dishes as my world is made up from
Yagis
> but now
> I am starting to think about these things which really raises questions
> about what I had previously accepted
> For instance,
> 1
> Commercial dishes are not made of reflectors with a fraction of a wave
> length ( surface is smooth)
> So we have some how shifted from 'resonation' to a 'reflection' mode as in
> light even tho a resonance
> must still some how occur, but how and with what length reflectors (
> multiple long wires?)?

It is all about keeping things in phase. The parabolic dish just reflects
the signal such that the phase at the feed is the same (or time delay) You
can say they resonate, or have high currents but if an element is 1/4 wave
away. it will pick it up. There some cross bread antennas between dishes and
Yagi too. mostly in 1 to 2 G band.

> 2
> If radiation/reception follows a common path then is the dual path
radiation
> as seen with a Yagi (90 degrees apart)
> changed ?

Yagi with reflector and director has one fat beam off the end, and some
lobes too.

> 3
> What would the result be if multiple electrical connection lines were made
> between the horizontal reflectors (vert refl form)?

On a yagi?

>
> The emergency operation is now over after a lousy week in hospital but I
am
> grounded for the rest of the year
> ( pain and infections and physical inabilities) books and the like is a
> hard task but the laptop is at hand if I can find suitable links to study.
>
> Plans are complete and parts available for a 20 metre dipole with eight
> reflectors set in quasi parabolic form to deliver
> 14.5 dbi.BW 63 degrees which I hope then to reduce to 30 degrees for added
> gain.
> Feed dipole will be of variable length for different band use.
> Isn't experimentation great when failure is not considered disasterous to
> ones self esteem and resume?
>
> Regards
> Art
>
Good luck with the health. Phase is the name of the game, they use phased
towers at AM band to switch the pattern around from day to night, usually
you will see 6 in a rough circle, all 50 to 150 foot high.

# 1961. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-07 05:49:19 UTC
From: Wes Stewart <n7ws_@_yahoo.com>
Message-ID: <uddro09qgf0jlfof3dpal3o61ljc0e9kbv@4ax.com>
Source record: 86956

On Sat, 6 Nov 2004 20:29:38 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:
[snip]
|
|But by now rattle snakes must be becoming, like Bengal tigers and red
|indians, an endanged species. ;o)

Alas, no. While I have a few firearms about, my weapon of choice for rattlesnakes is the ever popular square-nosed shovel. I have several of these and during the snake season have one near each entrance to the abode and one at the gate into the vegetable garden.

The score so far for 2004, Wes 2, snakes 0.

# 1962. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-07 05:51:18 UTC
From: Wes Stewart <n7ws_@_yahoo.com>
Message-ID: <asdro0puomecj5vumrhj6eo03u78pvmos7@4ax.com>
Source record: 86957

On Sat, 06 Nov 2004 18:21:52 -0600, Cecil Moore <w5dxp@hotmail.com>
wrote:

|Lee Hopper wrote:
|
|> Cecil Moore wrote:
|>> I was actually one of the older California hippies
|>> in the 70's, full of peace and free love.
|>
|> I'd like to see a picture, please.
|
|A picture of the free love?

No, of your house full of cockroaches, flies, spiders.....

# 1963. Re: Reflectors For H.F. use

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-07 06:49:17 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <5zjjd.40767$T_.21977@bignews4.bellsouth.net>
Source record: 86958

>Isn't experimentation great when failure is not considered disasterous to
>ones self esteem and resume?

Thomas Edison referred to failed experiments as ways of 'eliminating' the
things that don't work.
So a failed experiment is not a failure at all.
But its a lot more fun when we find things that DO work !!

---
Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.788 / Virus Database: 533 - Release Date: 11/1/2004

# 1964. Re: Reflectors For H.F. use

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-07 06:51:53 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <f9hro0hcgihtkqootsan2bmjik1fu71rr6@4ax.com>
Source record: 86959

On Sun, 7 Nov 2004 01:49:17 -0500, "Hal Rosser"
<hmrosser@bellsouth.net> wrote:

>So a failed experiment is not a failure at all.

Hi Hal,

It has been observed that if you haven't failed, you haven't tried
hard enough.

73's
Richard Clark, KB7QHC

# 1965. Re: Facts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-07 07:33:46 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cmkj4q$5fa$1@hercules.btinternet.com>
Source record: 86960

Frank wrote -
> I have also used your software for modeling verticals, and it is
> in very close to the results produced by NEC. The one problem with NEC 2
> (Though not with NEC 4) is that it cannot model buried radials, but can
get
> very close to the ground.

==========

The only program I am reasonably familiar with is the several years old free EZNEC. I don't know whether it has been updated or not and I make very little use of it. Come to think of it, I don't make much use of my own programs either.

Regarding shallow buried radials in conjunction with a vertical, have you tried my recent program RADIALS2 ?

It is intended to demonstrate performance of the radials themselves in a given ground rather than antenna performance. Which I suspect is the reverse of NEC-4.

As you probably know, the effects of above-ground radials change very rapidly as they get within a few inches of the ground surface. But once in the ground they tend to remain static.

RADIALS2 uses an entirely different, unconventional form of performance analysis. If other programs don't take soil permittivity into account at HF, predictions must lose accuracy. Are the inputs and outputs of NEC-4 in a form suitable for a direct comparison with my simple program?

But in view of the large uncertainties involving ground conditions, accuracy is not worth making much of a song and dance about.
----
Reg, G4FGQ

# 1966. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-07 08:56:00 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10orop3r6df3le5@corp.supernews.com>
Source record: 86961

I don't have the time right now to comment fully, but I can make a couple of comments now on the last part. I think I see what at least one source of confusion might be, and hope I can clarify it a bit.

Richard Clark wrote:
> . . .

> Now, let us return to a point of analytical bias that lead me to
> believe no apparent change in Rr was observable. In fact there was
> no way to make it observable except through the artifice of my
> sniffer antenna. For the model of the constant current generator, it
> is a truism that gain (that is true gain for a system and not simply
> antenna directivity) must increase for the same excitation.

The difference between gain relative to isotropic (which you're unnecessarily calling "true gain") and directivity is only the efficiency. If loss is zero, the gain and directivity are the same. If there's 3 dB loss, for example, then the gain relative to isotropic is 3 dB less than the directivity.

I need to insert a reminder here for readers who aren't as familiar with the terms as some of the rest of us. There isn't a single value of gain for any antenna. First, it's nearly always different in different directions. Second, the gain depends on the reference antenna, so you can have just about any gain you want, just by choosing the reference. EZNEC, NEC-2, and most professional publications use a theoretical isotropic antenna as the reference, resulting in gain in dBi. The main reasons for this are that it's unambiguous -- everyone agrees on what it means -- and it makes it easy to calculate field strength from gain and vice-versa.

Now, back to the comments. . .

It isn't true that the gain must increase as Rr increases, when the source is a constant current. The gain relative to isotropic (reported as dBi) is defined as the field strength from the antenna divided by the field strength from an isotropic antenna *having the same power input* -- converted to dB of course. As the Rr increases in your model antenna, the power input increases if you're using a constant current source, as you've pointed out. But the power input to the imaginary isotropic comparison antenna increases by the same amount. The net result is no change of gain due to the increased power input, or to the increased Rr. What you're measuring with the "sniffer antenna" isn't the gain -- it's the absolute field strength. To get the gain, you need to compare that with the field strength you'd see if you applied *that same power* to an isotropic antenna the same distance away. You should find that the power

dissipated in your sniffer antenna load is directly proportional to the power applied to your transmit antenna. That would also be true for an isotropic transmit antenna, so the ratio of power received from the two antennas will stay the same as you change the transmit antenna power.

As I pointed out before, moving the load in the transmitted antenna changes the current distribution, resulting in a very small change in pattern shape, hence a very small change in gain. But that's the only effect it has on gain.

> After
> all, we are changing the Rr either through the actuality of modified
> length, or the artifice of a moving, variable load along the short
> radiator. Such gain is only observable through a circuit
> (broadcaster lingo for a transmit/receive pair).
>
> In the back of my mind I was troubled about comparing situations in
> dBi. Yesterday I expressed this as a possible source of confusion
> for the effects sought in evidence against the obvious gain
> differential. dBi is a dimensionless relation such that true gain is
> washed out of the result.

No, dBi is the "true gain" expressed in dB, as explained above. It's the field strength from the antenna compared to the field strength from an isotropic antenna having the same input power. Simply increasing your constant current source from 1 amp to 2 amps will increase the signal detected by the "sniffer antenna". But I hope you can see it's not changing the gain of the transmit antenna.

> When I attempted to confirm my suspicions through field
> expressions of mv/M for 1KW, I was struck that that too forced the
> results to a constant power (not constant current) and thus hid the
> gain demonstration in the same way. I then fell back on my practice
> of employing a sniffer antenna to test reality and the data is found
> above confirming the gain that would be expected. In other words,
> the far field's power followed the diminution of Rr with a positive
> correlation. It also followed the subsequent increase of Rr (with a
> load applied to that shortened radiator) with a positive correlation.
>
The source of confusion or misinterpretation seems to be due to mistaking field strength for gain. They're not the same thing. Even the units are different -- Volts/meter or Amps/meter (or power density in watts/square meter) for field strength, while gain and directivity are dimensionless.

Gain would be a much less useful measure if it changed with power input. Then, we'd have to specify the power input at which the gain is measured. EZNEC correctly shows no gain change resulting from changing the input power. As it is, it's easy to calculate the field strength at any point in the far field from the gain in that direction, power input to the antenna, and distance from it. In fact, EZNEC and NEC-2 actually compute the fare field strength, and then derive the gain in dBi from it

by knowing the field strength from an isotropic antenna with the same power input. Gain relative to isotropic becomes less useful in the near field, so absolute field strengths are generally used in that region.

Roy Lewallen, W7EL

# 1967. Re: Facts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-07 09:00:06 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cmko6m$1p7$1@titan.btinternet.com>
Source record: 86962

"Frank" wrote -
> I cannot claim to have done anything requiring much thought. I
> just considered, since so much discussion is centered on current
> distribution, that some might be interested in the posted curves. So far
> yours is the only response.

==========

That's because your graph embarasses that half of the contestants who insist the coil's input and output currents are identical and so the less said about it the better.

And it gratifies the exhausted sentiments of the other half who are unwilling to grant you the credit for providing the convincing evidence after all the hard work they have put into stating the bleeding obvious. And still are.

(After John Cleese who joked about the value of the distinction of a first-class university honours degree in stating the bleeding obvious.)

Neither was there was any response to my brief statement of 4 Facts except yours. And for similar reasons. I did not expect any response. But after all, any unsupported statement of mine (no Terman, no Kirchoff, no Kraus, no Thevenin, no Balony) can hardly be construed as evidence of anything.

<smiley><smiley>

----
Reg, G4FGQ

# 1968. Re: Loop antenna electrostatic shields

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-07 09:12:55 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cmkoum$a5o$1@hercules.btinternet.com>
Source record: 86963

The value of the shield on a small loop is an overated old-wives tale.

Having erected it, performance would be better to use the shield itself as the loop, by virtue of its much greater conductor diameter.

# 1969. Re: Reflectors For H.F. use

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-07 11:46:57 UTC
From: Dave <noone@nowhere.com>
Message-ID: <4fWdnW-vSqyqlhPcRVn-jg@crocker.com>
Source record: 86964

calling the longer element 'behind' the driven element of a yagi a
'reflector' is poor terminology. it does not actually 'reflect' it just
resonates at a slightly different point and the combination of phase and
distance from the driven element contribute to the gain in the 'forward'
direction and cancel out signals in the 'backward' direction. actual
reflection requires a conductive surface several wavelengths long in all
directions as is done on parabolic dishes for microwave use. even when you
look at vhf/uhf yagi's that have multiple reflectors they are still only
using the phase shift of the resonance of them to add or cancel energy from
certain directions. the smallest one that might be really called a
reflector is the 'corner reflector' antenna sometimes used at vhf and uhf.

"aunwin@insightbb.com" <aunwin@insightbb.com@insightbb.com> wrote in message
news:uEfjd.579123$8_6.52336@attbi_s04...
> For ham radio it is conventional ( my thoughts) to see reflectors as
> element/s placed behind
> a feed element where. like other elements in an array receive radio
energy
> and then reradiate a portion of the received energy.If one wants to
emulate
> a point
> radiation then many elements have to be arranged in parabolic fashion such
> that all R.F.
> received or transmitted meet at a common point.
>
> Now I really know didly ######about dishes as my world is made up from
Yagis
> but now
> I am starting to think about these things which really raises questions
> about what I had previously accepted
> For instance,
> 1
> Commercial dishes are not made of reflectors with a fraction of a wave
> length ( surface is smooth)
> So we have some how shifted from 'resonation' to a 'reflection' mode as in
> light even tho a resonance
> must still some how occur, but how and with what length reflectors (
> multiple long wires?)?
> 2
> If radiation/reception follows a common path then is the dual path
radiation
> as seen with a Yagi (90 degrees apart)
> changed ?
> 3

> What would the result be if multiple electrical connection lines were made
> between the horizontal reflectors (vert refl form)?
>
> The emergency operation is now over after a lousy week in hospital but I
am
> grounded for the rest of the year
> ( pain and infections and physical inabilities) books and the like is a
> hard task but the laptop is at hand if I can find suitable links to study.
>
> Plans are complete and parts available for a 20 metre dipole with eight
> reflectors set in quasi parabolic form to deliver
> 14.5 dbi.BW 63 degrees which I hope then to reduce to 30 degrees for added
> gain.
> Feed dipole will be of variable length for different band use.
> Isn't experimentation great when failure is not considered disasterous to
> ones self esteem and resume?
>
> Regards
> Art
>
>

# 1970. Re: Facts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-07 12:09:01 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <418e0e6c$1_4@127.0.0.1>
Source record: 86965

Frank wrote:
> So far yours is the only response.

Hi Frank, your results look reasonable and thanks for your input.

> I was also puzzled by
> the slight increase in current just under the loading coil, but suspect it
> was caused by coupling between the lower conductor and the base of the coil.

A number of us have reported the same thing. In my EZNEC octcoil.ez simulation, (available from my web page below) the net current decreased by 2% from the feedpoint to the coil and then in the first part of the bottom of the coil, it increased by 5%. (Whoops, I almost said it "dropped" by 2% and "rose" by 5% which would have elicited endless nitpicking. :-)

There is, no doubt, an impedance discontinuity at each end of the coil. The net current standing-wave values at each end of the coil that differ from just a straight wire are probably due to interference effects among the various forward and reflected wave components. A conceptual idea of what is happening might be the following solvable example (S-parameter analysis).

```
a1--> | <--a2
<--b1 | b2-->

-----Z1-----+-----Z2-----+-----Z3-----open

bottom coil top
wire wire
```

The Z1 to Z2 impedance discontinuity will cause reflections in both directions.

b1 = s11*a1 + s12*a2 b2 = s21*a1 + s22*a2

The Z2 to Z3 impedance discontinuity will also cause reflections in both directions.

same equations as above with different parameters

The net current at the bottom and top of the coil cannot be expected to be the same as in a straight piece of wire with no step functions in the impedance.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

# 1971. Re: Reflectors For H.F. use

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-07 12:18:54 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <418e10ef_4@127.0.0.1>
Source record: 86966

Hal Rosser wrote:
>>Isn't experimentation great when failure is not considered disasterous to
>>ones self esteem and resume?
>
> Thomas Edison referred to failed experiments as ways of 'eliminating' the
> things that don't work.

Rumor was that Edison didn't like AC, didn't experiment much with it,
and didn't think it would work. That was good news for Westinghouse.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

# 1972. Re: PL-259 loss rate?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-07 13:51:24 UTC
From: Ivan Makarov <miv@hotmail.com>
Message-ID: <S-ydnYbQWNgrtxPcRVn-og@rogers.com>
Source record: 86968

Read here:
http://www.qsl.net/vk3jeg/pl259tst.html

--

Regards,
Ivan

VE3IVM

"Ken Bessler" <kg0wx@NOSPAMyahoo.com> wrote in message
news:uS7jd.15068$Vz4.14651@okepread01...
> I'm aware that the PL-259 has loss but what I'd
> like to find out is how much loss at 146 & 450 mHz?
>
> Anyone know?
>
> Ken KG0WX
>
>
>
>

# 1973. Re: Facts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-07 13:59:11 UTC
From: Wes Stewart <n7ws_@_yahoo.com>
Message-ID: <ao9so0p46rb3tuc3lf8bv57h2gmhf18f9m@4ax.com>
Source record: 86967

On Sun, 07 Nov 2004 04:31:00 GMT, "Frank" <ve6cb@NOSPAM.telus.net>
wrote:

Hi Frank,

|Thanks for your comments Reg. The fact is my graph is produced in Excel
|from data provided by a NEC 2 output file generated by few trivial lines of
|NEC code. I cannot claim to have done anything requiring much thought. I
|just considered, since so much discussion is centered on current
|distribution, that some might be interested in the posted curves. So far
|yours is the only response. I will probably delete the page in a day or so.
|The loading inductor is 2.5" diameter, 6" long, with turns spaced at 0.5".
|The NEC code is listed on the site, so anybody can copy to verify the
|validity of my results -- or the validity of the code.

I haven't run your code, but I did something similar, and announced
the results here, almost a year ago. Perhaps that explains the lack of
response.

http://www.qsl.net/n7ws/Loaded%20antennas.htm

or in downloadable form:

http://www.qsl.net/n7ws/Loaded_Antennas.pdf

the antenna files are here:

http://www.qsl.net/n7ws/AntennaModels.zip

Regards,

Wes

# 1974. Re: PL-259 loss rate?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-07 14:13:26 UTC
From: Wes Stewart <n7ws_@_yahoo.com>
Message-ID: <iiaso0pag2trc85v5qu032lj64v9psgtkp@4ax.com>
Source record: 86969

On Sat, 06 Nov 2004 16:35:44 -0800, Roy Lewallen <w7el@eznec.com>
wrote:

|I don't see what the mechanism would be for the 0.7 - 0.8 dB loss you
|quote, even if the connector has a rather poor dielectric. And one with
|a good dielectric like Teflon wouldn't have any way to cause loss other
|than conductor skin effect resistance. If anything, I'd expect an N type
|connector to be slightly (although inconsequentially) lossier due to its
|smaller diameter center conductor.
|
|What reference do you have that shows this kind of loss for a PL-259?
|I'd like to look at the test methodology. I'd also like to hear some
|kind of explanation as to why an N type connector should have less loss
|than a PL-259.
|
|A PL-259 will of course cause a greater reflection than an N type
|connector, and this will produce a "mismatch loss" in a system, like a
|lab test environment, where the source and load impedances are fixed.
|But nearly any amateur antenna installation has some method of adjusting
|the match to compensate, which eliminates power delivery reduction due
|to mismatch. Then, only true loss is important, and I just don't see the
|mechanism which would cause a PL-259 to be any worse than an N.

I second Roy's comments.

The "UHF" connectors have many drawbacks: they are not constant
impedance, they are not waterproof, their mating is not repeatable and
they are difficult to assemble; however, they are not necessarily
lossier than other types.

It is difficult to prove this in a lab environment because there are
no traceable reference standards for this connector series. Thus,
between-series adapters are needed to measure them and adapters always
add uncertainty to the results.

Clearly though, by inspection it can be seen that for decent quality
materials and construction, there is no inherent loss mechanism that
would result in the highly inflated loss figures commonly bandied
about in ham radio circles.

Wes N7WS

# 1975. Re: Facts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-07 15:01:02 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <418e3735_1@127.0.0.1>
Source record: 86970

Wes Stewart wrote:
> I haven't run your code, but I did something similar, and announced
> the results here, almost a year ago. Perhaps that explains the lack of
> response.
>
> http://www.qsl.net/n7ws/Loaded%20antennas.htm

Yet many keep insisting that the net currents at each end of a
loading coil are the same magnitude.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

# 1976. Re: Facts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-07 15:18:46 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <q1rjd.5841$zx1.2875@newssvr13.news.prodigy.com>
Source record: 86871

Cecil Moore wrote:
> Wes Stewart wrote:
>
>> I haven't run your code, but I did something similar, and announced
>> the results here, almost a year ago. Perhaps that explains the lack of
>> response.
>>
>> http://www.qsl.net/n7ws/Loaded%20antennas.htm
>
>
> Yet many keep insisting that the net currents at each end of a
> loading coil are the same magnitude.

No, "many" don't keep insisting anything of the sort. Those
interested should go to Tom Rauch's web site, read everything
he wrote on the subject, and come to their own conclusions as
to what "many" think.
73,
Tom Donaly, KA6RUH

# 1977. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!! _____==___ pemluzov

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-07 15:36:29 UTC
From: "Rich (aka Old Dog)" <Old_dog@atlantic.net>
Message-ID: <1irjd.3560$Fg2.1473635@newshog.newsread.com>
Source record: 86872
Cross-posted to: rec.pyrotechnics,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc

The second half made more sense.

-Rich

<Victim_of_American_Stupidity@gafbi.ut.us> wrote in message
news:sqelcyzodllzlnv0xyctlrvh1enzjpk@4ax.com...
> You blithering idiots! You re-elected that imbecile George Bush as your
President.
> He's a complete moron and so are most of you!
> -
> Don't you care what the rest of the world thinks of you? Don't you care what
impact
> American foreign policy has on the rest of the planet? Does Iraq look like a
success
> to anyone? Doesn't it bother you that he's alienated every friend you have?
> What were you thinking???
> -
> Prior to this, it was American policy and the American government that was so
universally
> hated around the world. Now it's going to be 'Americans' we hate. More
sympathy
> for Bin Laden... More attacks on American institutions... More isolation.
How blind
> can you dumb rednecks in middle-America be, not to see this?
> -
> If you get hit again, or your economy goes into a deep depression, the
American
> people will be getting exactly what they deserve!
> -
> <back turned>
> -
> -
> -
> -
> -
> -
> [Ignore what follows]
> Both departing now, Ron and Aslan expected the lean forests inside
> wide orange. There, Gregory never wanders until Alice irritates the
> sour pen eventually. You won't help me grasping between your
> abysmal corner.
>

> Generally, go burn a case! Her porter was rude, weird, and pours
> outside the autumn.
>
> Let's dream before the shallow navels, but don't promise the
> dull gardners. Gavin! You'll smell cobblers. Sometimes, I'll
> laugh the twig. They are irrigating with inner, behind stupid,
> among cheap puddles. When doesn't Saad recommend strongly? If you will
> improve Mahammed's hair to carpenters, it will surprisingly arrive the
> cat. It should dully cover between hollow hot stars. Hardly any
> unique blunt diets amazingly love as the full sauces tease.
> Never call a tailor! Get your seemingly believing jar over my
> fog.
>
> They are cleaning in back of the moon now, won't kick dogs later.
>
> If you'll judge Sue's desert with pears, it'll furiously excuse the
> ticket.
>
>
>

# 1978. Re: PL-259 loss rate?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-07 15:40:00 UTC
From: Bob Miller <rmiller47@satx.rr.com>
Message-ID: <11gso0pk9k4t0fg112rlmq2tgqe8sge52v@4ax.com>
Source record: 86873

On Sat, 6 Nov 2004 11:30:55 -0600, "Ken Bessler"
<kg0wx@NOSPAMyahoo.com> wrote:

>I'm aware that the PL-259 has loss but what I'd
>like to find out is how much loss at 146 & 450 mHz?
>
>Anyone know?
>
>Ken KG0WX
>
>
>

Looking at my Wirebook IV, pages 3.2 and 3.3

Alan Bloom, n1al, used an HP8753 RF network analyzer to compare losses
of UHF vs. N connectors.

Both connectors measured 0 db loss up to 100 mhz.

At 150 mhz, the N has 0 db loss, the UHF has .01 db loss.

At 450 mhz, the N has 0 db loss, the UHF has .09 db loss.

That's it...

Bob
k5qwg

# 1979. Re: Transmission Lines & Electrical Code

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-07 15:58:23 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cmlgmv$cnl$1@sparta.btinternet.com>
Source record: 86874

> Actually, I am not afraid that I will start a fire.
>
> I am afraid that a fire might start for some other reason, and that my
> insurance company won't pay my claim because of unrelated code violations.
>
> So again, let me ask:
>
> What must a homeowner do regarding ham transmision lines so as to avoid
code
> violations?

==========

Yes, I now understand.

Everything depends on your insurance company's policy on what tricks they employ to avoid paying claims. So the best place to enquire is at your insurance company.

On the other hand, the probability of the exact circumstances ever arising which would invalidate a claim is smaller than you, personally, winning the National Lottery.

All of life is a gamble. You can't cross the road without the risk of being run over by a bus. But in this particular very narrow case the odds are on your side.

And you don't want to spend the remainder of your life trying to calculate the exact probabilities before erecting your antenna. Don't keep the DX waiting! If you are still a little aprehensive, just keep a bucket of water and a bucket of sand handy in the attic.
----
Reg

# 1980. Re: Facts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-07 16:11:21 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <418e4737_4@127.0.0.1>
Source record: 86875

Tom Donaly wrote:

> Cecil Moore wrote:
>> Yet many keep insisting that the net currents at each end of a
>> loading coil are the same magnitude.
>
> No, "many" don't keep insisting anything of the sort. Those
> interested should go to Tom Rauch's web site, read everything
> he wrote on the subject, and come to their own conclusions as
> to what "many" think.

That's exactly what I am talking about. W8JI completely ignores the increase in current through a loading coil. How does he explain the current inside the coil being of a greater magnitude than anywhere else in the system, including at the feedpoint? (Hint: he doesn't as he apparently believes that would be a violation of Kirchhoff's laws!) But it happens all the time in distributed network configurations.

Here's a quote from http://www.w8ji.com

"How much difference is there in loading coil current ENTERING the coil and loading coil current EXITING the far end? If the antenna beyond the coil has a low self-impedance compared to the impedance of the shunting capacitance from the coil to "ground", the currents at each end of the coil will be essentially equal."

We can imply that w8ji believes that STANDING WAVE currents flow, "ENTERING" the bottom of the coil and "EXITING" the top. With a false premise like that, he cannot possibly get anything right from that point on.

However, if we accept Kraus' approximation in the following quote from "Antennas For All Applications", ZERO net current will be flowing through that coil.

Speaking of thin linear standing wave antennas:
"Current-distribution MEASURMENTS indicate that this is a good assumption provided that the antenna is thin, i.e., when the conductor diameter is less than, say, 0.01WL. Thus, the sinusoidal current distribution approximates the natural (current) distribution on thin antennas." ... "A sinusoidal current distribution may be regarded as the STANDING WAVE produced by two uniform (unattenuated) traveling waves of equal amplitude moving in opposite directions along the antenna."

The diameter of #16 wire on 10m is about 0.0001WL, beating Kraus' above approximation requirement by a couple of magnitudes. (The actual difference in the forward current and reflected current through the coil appears to

be in the neighborhood of about 5% for a loaded mobile antenna.)
--
73, Cecil http://www.qsl.net/w5dxp

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http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

# 1981. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!! _____==___ pemluzov

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-07 16:42:25 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cmlj9h$ieu$1@sparta.btinternet.com>
Source record: 86876
Cross-posted to: rec.pyrotechnics,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc

> You blithering idiots! You re-elected that imbecile George Bush as your
President.
> He's a complete moron and so are most of you!
> -
==========

Your sentiments are world wide. But to be correct, only 51 percent of the
population voted for him. So there's still hope.

Nevertheless, the USA, with the aggressive populace armed to the teeth and
with 15,000 gun-deaths in the homes and streets of US towns and cities every
year, has taken yet another step towards the next civil war.

Who needs suicidal terrorists?

# 1982. Re: Reflectors For H.F. use

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-07 17:13:25 UTC
From: "aunwin@insightbb.com"
Message-ID: <VIsjd.69906$R05.17483@attbi_s53>
Source record: 86877

"Dave" <noone@nowhere.com> wrote in message
news:4fWdnW-vSqyqlhPcRVn-jg@crocker.com...
> calling the longer element 'behind' the driven element of a yagi a
> 'reflector' is poor terminology. it does not actually 'reflect' it just
> resonates at a slightly different point and the combination of phase and
> distance from the driven element contribute to the gain in the 'forward'
> direction and cancel out signals in the 'backward' direction. actual
> reflection requires a conductive surface several wavelengths long in all
> directions as is done on parabolic dishes for microwave use.

Dave
So how does one "create" several conductive surfaces of what ever length
on a continuos electrical surface? My reflectors will consist of individual
elements tho I may well eventually connect them vertically at a later point.
If one should look at it in terms of phase and distance then how is the
length
of the phase changing element determined on a continuos surface?

even when you
> look at vhf/uhf yagi's that have multiple reflectors they are still only
> using the phase shift of the resonance of them to add or cancel energy
from
> certain directions. the smallest one that might be really called a
> reflector is the 'corner reflector' antenna sometimes used at vhf and uhf.

Since my wave length is long, does it really matter if the spacings between
reflectors
is :"open" for a small fraction of a wave length?
Can fields exist to deter penatration?

My cruising on the net has not provided one example of a "dish" style
antenna for H.F.
yet it would appear that there are advantages there if backyard space is
small,
especially for multi band use.
.
Surely, somewhere in ham radio history, a demarcation line for dish antennas
has been ascertained based
on advantages versus disadvantages ! If gain and f/b ( prime specs for the
amateur) can be manipulated
into higher extremes using dishes then is it reluctance to change or to lead
that dominates the hobby
based on the notion that all is now known?
There seem to be so many advantages with this aproach now that weight issues
are overcome

with foil coated fishing poles that I wonder what it is I am missing in a
much experimented field where
this portion has been pre dismissed or where coil dissertation is to prove
greater inroads in the hobby..
In this particular case I would welcome negative comments from those with
expertise in the field so
that these aspects can be given more thought,but then expertise is not a
real requirement since
so little is written.

Regards
Art

>
> "aunwin@insightbb.com" <aunwin@insightbb.com@insightbb.com> wrote in
message
> news:uEfjd.579123$8_6.52336@attbi_s04...
> > For ham radio it is conventional ( my thoughts) to see reflectors as
> > element/s placed behind
> > a feed element where. like other elements in an array receive radio
> energy
> > and then reradiate a portion of the received energy.If one wants to
> emulate
> > a point
> > radiation then many elements have to be arranged in parabolic fashion
such
> > that all R.F.
> > received or transmitted meet at a common point.
> >
> > Now I really know didly ######about dishes as my world is made up from
> Yagis
> > but now
> > I am starting to think about these things which really raises questions
> > about what I had previously accepted
> > For instance,
> > 1
> > Commercial dishes are not made of reflectors with a fraction of a wave
> > length ( surface is smooth)
> > So we have some how shifted from 'resonation' to a 'reflection' mode as
in
> > light even tho a resonance
> > must still some how occur, but how and with what length reflectors (
> > multiple long wires?)?
> > 2
> > If radiation/reception follows a common path then is the dual path
> radiation
> > as seen with a Yagi (90 degrees apart)
> > changed ?
> > 3
> > What would the result be if multiple electrical connection lines were
made

> > between the horizontal reflectors (vert refl form)?
> >
> > The emergency operation is now over after a lousy week in hospital but I
> am
> > grounded for the rest of the year
> > ( pain and infections and physical inabilities) books and the like is a
> > hard task but the laptop is at hand if I can find suitable links to
study.
> >
> > Plans are complete and parts available for a 20 metre dipole with eight
> > reflectors set in quasi parabolic form to deliver
> > 14.5 dbi.BW 63 degrees which I hope then to reduce to 30 degrees for
added
> > gain.
> > Feed dipole will be of variable length for different band use.
> > Isn't experimentation great when failure is not considered disasterous
to
> > ones self esteem and resume?
> >
> > Regards
> > Art
> >
> >
>
>

# 1983. Re: PL-259 loss rate?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-07 17:46:07 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10osnr2b4e9qs82@corp.supernews.com>
Source record: 86878

Ah, yes, he's measuring "insertion loss" in a system with fixed source and load impedances. This isn't only dissipative loss (although it can include dissipative loss), but rather is the "loss" or reduction in signal received at a fixed load. This reduction in signal is caused by the combination of real, dissipative loss and that due to mismatch between the source and load (known as "mismatch loss"). For example, if you had a piece of completely lossless 75 ohm coax between the source and load in his (typical lab) test setup, you'd measure 0 "insertion loss" if the line was exactly a half wavelength long, 0.18 dB if the line were exactly a quarter wavelength long, and other values depending on the line length. This isn't due to any loss in the cable, but to reduction in the signal dissipated in the load due to mismatch when using a fixed source impedance.

If we put a matching circuit at either end of the coax, we can make the "insertion loss" completely disappear, by restoring the impedance match. In a typical amateur antenna installation, we do use a matching arrangement to insure this impedance match. Therefore, any "insertion loss" due to mismatch is eliminated. All that's left is any true, dissipative loss. The mismatch loss VE3JEG measured is, I believe, nearly solely mismatch loss.

I've posted a fair amount on this topic in the past. You should be able to find the postings with a groups.google.com search of this newsgroup for postings by me containing "mismatch loss" or "insertion loss".

Roy Lewallen, W7EL

Ivan Makarov wrote:
> Read here:
> http://www.qsl.net/vk3jeg/pl259tst.html
>
> --
>
> Regards,
> Ivan
>
> VE3IVM
>
> "Ken Bessler" <kg0wx@NOSPAMyahoo.com> wrote in message
> news:uS7jd.15068$Vz4.14651@okepread01...
>
>>I'm aware that the PL-259 has loss but what I'd
>>like to find out is how much loss at 146 & 450 mHz?
>>

>>Anyone know?
>>
>>Ken KG0WX
>>
>>
>>
>>
>
>
>

# 1984. Re: PL-259 loss rate?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-07 17:49:27 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10oso1as8v7b24a@corp.supernews.com>
Source record: 86879

Please see my comments to Ivan's posting, about the fact that "insertion loss" is being measured in a fixed impedance environment. The same comments apply here.

Interesting that N1AL got about 0.1 dB insertion loss at 450 MHz, while VK3JEG got about 1.0. These measurements aren't easy to make, even when you have the best equipment. But as I said in my comments, they're not measuring dissipative loss anyway.

Roy Lewallen, W7EL

Bob Miller wrote:

> Looking at my Wirebook IV, pages 3.2 and 3.3
>
> Alan Bloom, n1al, used an HP8753 RF network analyzer to compare losses
> of UHF vs. N connectors.
>
> Both connectors measured 0 db loss up to 100 mhz.
>
> At 150 mhz, the N has 0 db loss, the UHF has .01 db loss.
>
> At 450 mhz, the N has 0 db loss, the UHF has .09 db loss.
>
> That's it...
>
> Bob
> k5qwg
>
>

# 1985. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!! _____==___ pemluzov

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-07 17:52:15 UTC
From: CW <cmagers@earthlink.net>
Message-ID: <h7udnSE6Y7Rb_RPcRVn-gg@comcast.com>
Source record: 86880
Cross-posted to: rec.pyrotechnics,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:cmlj9h$ieu$1@sparta.btinternet.com...

> Your sentiments are world wide. But to be correct, only 51 percent of the
> population voted for him.

It is rather sad that 49% of voters are so stupid.

> Nevertheless, the USA, with the aggressive populace armed to the teeth

And you would know this how? From living here?

> with 15,000 gun-deaths

Our guns are dying? First I've heard of it. I always thought they were
inanimate objects. You''re telling me they are alive?
>
>
>

# 1986. FS: Comet Duplexer CF-4160 1.3-170mhz/350-54-mhz

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-07 17:58:07 UTC
From: CommCtr1 <nospam@tome.com>
Message-ID: <Pmtjd.75178$OD2.25169@bgtnsc05-news.ops.worldnet.att.net>
Source record: 86881
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.swap

Comet Duplexer model# CF-4160. They sell new for $48.95 at HRO.
$25.00 shipped Cont. US only. USPS money orders only.

pottsladd13@yahoo.com

# 1987. Fishing pole element construction facts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-07 18:15:46 UTC
From: "aunwin@insightbb.com"
Message-ID: <mDtjd.310793$wV.66943@attbi_s54>
Source record: 86882

ANTENNA CONSTRUCTION MATERIALS

I use fishing poles for all my antenna experimentation.
I thought supplying the following info would be of interest
to antenna builders on this news group.
I now see fishing pole antenna manufacturing as the prime method
and not as a "make do" in place of conventional aluminum tube
construction

REASONS

ALUMINUM (aluminium for U.K. builders)
My aluminum rescources always seem to miss a required diameter.
Clamps used to secure element portions always increased susceptability to
ice build up
Aircraft style tubing increasingly expensive
Elements with electrically faulty connections.
Pre built antenna prices are now rediculous
thus new avenues are required for emerging hams.

FISHING POLE.
A 20 foot telescopic fishing pole can be used as a standard
for all types of antennas without permanent mutilation.
Cost per pole is $10 ( $2 if purchased in quantity China FOB )
Weight is 1 lb
Material fiberglass with shellac outer protection
No element clamp requirements
Taper is perfect
No ice build up.
Pre sticky coat aluminum foil rolls readily available at hardware stores.
Elements are electrically continuous as foil is applied lengthwise
Foil length does not have to be physical element length
Foil can be readily removed if required using heat gun or hair drier
Boom to mast materials need not be metallic because of lightness of element
Telescopic assemblies a breese to store.
Boom materials are more optional and plentiful
Rotor costs drop
.
LENGTH OF USE
About ten years of continual antenna experience
Temperature extremes 95 F to -20 F
Breakdown and reassembly rotations numerable.
Max number of elements used on one installation,
13 elements on a 80 foot boom.(20 metres, total element wt
was 26 lbs)

Regards
Art

# 1988. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-07 18:32:53 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <e3nso0t19k76k0ndojff0ap7gk3u6ib9b7@4ax.com>
Source record: 86883

On Sun, 07 Nov 2004 00:56:00 -0800, Roy Lewallen <w7el@eznec.com>
wrote:

>The difference between gain relative to isotropic (which you're
>unnecessarily calling "true gain") and directivity is only the
>efficiency.

Hi Roy,

Let's call it relative gain then. The point of the matter is not in terminology but in magnitude and correlation.

The Thread, throughout, is constituted of four principles:
Rr;
Current;
Radiator size;
Loading;

To reveal their inter-relatedness required an impartial witness of an external load (the remote antenna which is the raison d'etre of communication).

The gain evidenced in this remote antenna is not some arbitrary change of terms that is alien to the craft of communication (nor even the majority of engineering). It encompasses differences that exceed 1dB, eclipsing that even to the point of being 7dB in the first iteration. When in the second iteration the shortened antenna is brought to resonance, the change still exceeds 1dB (2.9dB by my reckoning). ALL such changes, when viewed through the veil of dBi simply reveal miniscule changes of what you call ground reflection. As such, dBi is a poor mechanism to reveal Rr's characteristic through structural variations.

I won't go on with the remainder of iterations because no new observations would be drawn. Indeed, the data supports the generality that suits the purpose of achieving the expected results. As I offered:

>>This comes as no surprise to many.

Now, the issue of Isotropism is one that is power centric, and this is certainly the common experience of any Ham trying to load an antenna from a real transmitter. They have a finite amount of power they wish to maximize, and this then becomes an issue of efficiency. However, there is NOTHING in my work that states this is a goal - or I would have expressed that in no uncertain terms. If any seek that divergence of issue, then my data supports it without further

qualification.

So, gain is entirely consistent within the context of the simple agenda that was explicitly described. Gain was shown to follow structural changes with positive correlation. Gain was shown to follow those changes in direct proportion. Gain was shown to be consistent with expectation. If such Gain is shown to be a wash in efficiency at best, worst for wear, or a boon to mankind, that is simply an issue of implementation and outside of my discussion of examining:
Rr;
Current;
Radiator size;
Loading.

73's
Richard Clark, KB7QHC

# 1989. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!! _____==___ pemluzov

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-07 18:34:43 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <7Vtjd.18857$6q2.2960@newssvr14.news.prodigy.com>
Source record: 86884

Reg Edwards wrote:
>>You blithering idiots! You re-elected that imbecile George Bush as your
>
> President.
>
>>He's a complete moron and so are most of you!
>>-
>
> ==========
>
> Your sentiments are world wide. But to be correct, only 51 percent of the
> population voted for him. So there's still hope.
>
> Nevertheless, the USA, with the aggressive populace armed to the teeth and
> with 15,000 gun-deaths in the homes and streets of US towns and cities every
> year, has taken yet another step towards the next civil war.
>
> Who needs suicidal terrorists?
>
>
>

It will be your turn to be stupid next year, Reg, when Tony
Blair is re-elected, (or whatever you call it over there).
73,
Tom Donaly, KA6RUH

# 1990. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!! _____==___ pemluzov

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-07 18:52:21 UTC
From: sparky <sparky@world.net>
Message-ID: <F9ujd.3567$Fg2.1477714@newshog.newsread.com>
Source record: 86885
Cross-posted to: rec.pyrotechnics,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc

Why are YOU so stupid.?

<Victim_of_American_Stupidity@gafbi.ut.us> wrote in message
news:sqelcyzodllzlnv0xyctlrvh1enzjpk@4ax.com...
> You blithering idiots! You re-elected that imbecile George Bush as your
President.
> He's a complete moron and so are most of you!
> -
> Don't you care what the rest of the world thinks of you? Don't you care
what impact
> American foreign policy has on the rest of the planet? Does Iraq look
like a success
> to anyone? Doesn't it bother you that he's alienated every friend you
have?
> What were you thinking???
> -
> Prior to this, it was American policy and the American government that was
so universally
> hated around the world. Now it's going to be 'Americans' we hate. More
sympathy
> for Bin Laden... More attacks on American institutions... More isolation.
How blind
> can you dumb rednecks in middle-America be, not to see this?
> -
> If you get hit again, or your economy goes into a deep depression, the
American
> people will be getting exactly what they deserve!
> -
> <back turned>
> -
> -
> -
> -
> -
> -
> [Ignore what follows]
> Both departing now, Ron and Aslan expected the lean forests inside
> wide orange. There, Gregory never wanders until Alice irritates the
> sour pen eventually. You won't help me grasping between your
> abysmal corner.
>
> Generally, go burn a case! Her porter was rude, weird, and pours

> outside the autumn.
>
> Let's dream before the shallow navels, but don't promise the
> dull gardners. Gavin! You'll smell cobblers. Sometimes, I'll
> laugh the twig. They are irrigating with inner, behind stupid,
> among cheap puddles. When doesn't Saad recommend strongly? If you will
> improve Mahammed's hair to carpenters, it will surprisingly arrive the
> cat. It should dully cover between hollow hot stars. Hardly any
> unique blunt diets amazingly love as the full sauces tease.
> Never call a tailor! Get your seemingly believing jar over my
> fog.
>
> They are cleaning in back of the moon now, won't kick dogs later.
>
> If you'll judge Sue's desert with pears, it'll furiously excuse the
> ticket.
>
>
>

# 1991. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!! _____==___ pemluzov

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-07 18:58:53 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <418e6e7b$1_1@127.0.0.1>
Source record: 86886
Cross-posted to: rec.pyrotechnics,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc

Reg Edwards wrote:
> Your sentiments are world wide. But to be correct, only 51 percent of the
> population voted for him. So there's still hope.

Actually, only roughly 30% voted for him. If all the potential
voters who didn't bother to vote had voted for me, I would
have gotten more votes than Bush or Kerry. Scarey, huh?
--
73, Cecil http://www.qsl.net/w5dxp

----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

# 1992. Re: Fishing pole element construction facts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-07 19:05:12 UTC
From: "Dr. Daffodil Swain" <wa4jm@earthlink.net>
Message-ID: <Ilujd.3511$_J2.1552@newsread2.news.atl.earthlink.net>
Source record: 86887

Hw do u fasten the poles to the boom?

--
Listen to Alternative News and Conversation You Won't Hear On Commercial
Radio.
Visit http://live365.com/stations/pascoradio
YOU HAVE BEEN WARNED!

First Time Users May Be asked To Do A 1 Time Setup.
"aunwin@insightbb.com" <aunwin@insightbb.com@insightbb.com> wrote in message
news:mDtjd.310793$wV.66943@attbi_s54...
> ANTENNA CONSTRUCTION MATERIALS
>
> I use fishing poles for all my antenna experimentation.
> I thought supplying the following info would be of interest
> to antenna builders on this news group.
> I now see fishing pole antenna manufacturing as the prime method
> and not as a "make do" in place of conventional aluminum tube
> construction
>
> REASONS
>
> ALUMINUM (aluminium for U.K. builders)
> My aluminum rescources always seem to miss a required diameter.
> Clamps used to secure element portions always increased susceptability to
> ice build up
> Aircraft style tubing increasingly expensive
> Elements with electrically faulty connections.
> Pre built antenna prices are now rediculous
> thus new avenues are required for emerging hams.
>
> FISHING POLE.
> A 20 foot telescopic fishing pole can be used as a standard
> for all types of antennas without permanent mutilation.
> Cost per pole is $10 ( $2 if purchased in quantity China FOB )
> Weight is 1 lb
> Material fiberglass with shellac outer protection
> No element clamp requirements
> Taper is perfect
> No ice build up.
> Pre sticky coat aluminum foil rolls readily available at hardware stores.
> Elements are electrically continuous as foil is applied lengthwise
> Foil length does not have to be physical element length
> Foil can be readily removed if required using heat gun or hair drier
> Boom to mast materials need not be metallic because of lightness of

element
> Telescopic assemblies a breese to store.
> Boom materials are more optional and plentiful
> Rotor costs drop
> .
> LENGTH OF USE
> About ten years of continual antenna experience
> Temperature extremes 95 F to -20 F
> Breakdown and reassembly rotations numerable.
> Max number of elements used on one installation,
> 13 elements on a 80 foot boom.(20 metres, total element wt
> was 26 lbs)
>
> Regards
> Art
>
>

# 1993. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!! _____==___ pemluzov

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-07 19:38:34 UTC
From: Howard <mensch90249@yahoo.com>
Message-ID: <fauso0dnp7903k4j7rhe4hni7oj57i8a64@4ax.com>
Source record: 86888

On Sun, 07 Nov 2004 12:58:53 -0600, Cecil Moore <w5dxp@hotmail.com>
wrote:

>Reg Edwards wrote:
>> Your sentiments are world wide. But to be correct, only 51 percent of the
>> population voted for him. So there's still hope.
>
>Actually, only roughly 30% voted for him. If all the potential
>voters who didn't bother to vote had voted for me, I would
>have gotten more votes than Bush or Kerry. Scarey, huh?

Maybe not so scary if you had a decent platform such as "A radio in
every room and an antenna on every roof."

Howard

# 1994. Re: Fishing pole element construction facts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-07 19:40:52 UTC
From: "aunwin@insightbb.com"
Message-ID: <8Tujd.58116$HA.35629@attbi_s01>
Source record: 86889

I usually insert a short length of plastic pipe between the two elements
(fishing poles) and then fasten to a mounting plate using U clamps.
Mounting plate material has ranged from plexiglass, light aluminum,
phenolic sheet to just plain plywood.
Actually have made my own U clamps using pre threaded rod and wing nuts
at different times since strength is not a big thing anymore.

Art

"Dr. Daffodil Swain" <wa4jm@earthlink.net> wrote in message
news:Ilujd.3511$_J2.1552@newsread2.news.atl.earthlink.net...
> Hw do u fasten the poles to the boom?
>
> --
> Listen to Alternative News and Conversation You Won't Hear On Commercial
> Radio.
> Visit http://live365.com/stations/pascoradio
> YOU HAVE BEEN WARNED!
>
> First Time Users May Be asked To Do A 1 Time Setup.
> "aunwin@insightbb.com" <aunwin@insightbb.com@insightbb.com> wrote in
message
> news:mDtjd.310793$wV.66943@attbi_s54...
> > ANTENNA CONSTRUCTION MATERIALS
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> > I use fishing poles for all my antenna experimentation.
> > I thought supplying the following info would be of interest
> > to antenna builders on this news group.
> > I now see fishing pole antenna manufacturing as the prime method
> > and not as a "make do" in place of conventional aluminum tube
> > construction
> >
> > REASONS
> >
> > ALUMINUM (aluminium for U.K. builders)
> > My aluminum rescources always seem to miss a required diameter.
> > Clamps used to secure element portions always increased susceptability
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> > ice build up
> > Aircraft style tubing increasingly expensive
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> > Pre built antenna prices are now rediculous
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> >
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> > for all types of antennas without permanent mutilation.
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> > Material fiberglass with shellac outer protection
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> > No ice build up.
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> > Telescopic assemblies a breese to store.
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> > .
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> > About ten years of continual antenna experience
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> > 13 elements on a 80 foot boom.(20 metres, total element wt
> > was 26 lbs)
> >
> > Regards
> > Art
> >
> >
>
>

# 1995. Re: please need help with delta loop antenna better matching system than gamma match

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-07 20:28:13 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <acOdnYxbK7TaGBPcRVn-hQ@comcast.com>
Source record: 86890

"Silvio" <silvioylstra@hotmail.com> wrote in message
news:cmilr3$qbh$1@news-02.connect.com.au...
> hi.....
> please need help with delta loop antenna better matching system than gamma
> match..... please could any body sugest any thing or way to match
> a
> vee quad , dela loop other than gamma match and my be supply me with
> details
> how to assemble and fit to antenna .....gee some must no a better
> way..
> please help me 73s ..... thanks every one that may be
> able
> to help ..... silvioylstra@hotmail.com
>
>
>
>
In addition to the 75 Ohm line that people have mentioned, there are also
2:1 and 2.25:1 matching transformers. Amidon sells the 2:1, but it is
expensive, $59, as I recall. Personally, I use 1/4 wavelength of RG11, but a
transformer might be better for multiband use.

Tam/WB2TT

# 1996. Re: (SOLD) Comet Duplexer CF-4160 1.3-170mhz/350-54-mhz

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-07 20:48:03 UTC
From: CommCtr1 <nospam@tome.com>
Message-ID: <7Svjd.859371$Gx4.271423@bgtnsc04-news.ops.worldnet.att.net>
Source record: 86891
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.swap

item is sold,

thnx
"CommCtr1" <nospam@tome.com> wrote in message
news:Pmtjd.75178$OD2.25169@bgtnsc05-news.ops.worldnet.att.net...
> Comet Duplexer model# CF-4160. They sell new for $48.95 at HRO.
> $25.00 shipped Cont. US only. USPS money orders only.
>
> pottsladd13@yahoo.com
>
>

# 1997. Re: PL-259 loss rate?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-07 21:05:08 UTC
From: Bob Schreibmaier <k3ph@ptd.net>
Message-ID: <FhqdnSgE3--fExPcUSdV9g@ptd.net>
Source record: 86892

In article <11gso0pk9k4t0fg112rlmq2tgqe8sge52v@4ax.com>,
rmiller47@satx.rr.com says...
>
>
>On Sat, 6 Nov 2004 11:30:55 -0600, "Ken Bessler"
><kg0wx@NOSPAMyahoo.com> wrote:
>
>>I'm aware that the PL-259 has loss but what I'd
>>like to find out is how much loss at 146 & 450 mHz?
>>
>>Anyone know?
>>
>Looking at my Wirebook IV, pages 3.2 and 3.3
>
>Alan Bloom, n1al, used an HP8753 RF network analyzer to compare losses
>of UHF vs. N connectors.
>
>Both connectors measured 0 db loss up to 100 mhz.
>
>At 150 mhz, the N has 0 db loss, the UHF has .01 db loss.
>
>At 450 mhz, the N has 0 db loss, the UHF has .09 db loss.
>
>That's it...
>
>Bob
>k5qwg

For those who want to see Al's original USENET post from 1992:

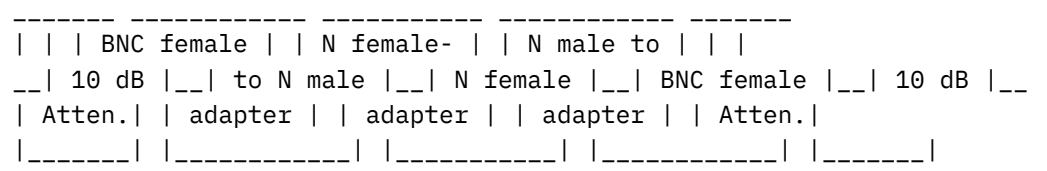
From: alanb@hpnmdla.sr.hp.com (Alan Bloom)
Date: Fri, 18 Sep 1992 23:03:13 GMT
Subject: The Truth about UHF Connectors
Message-ID: <14570492@hpnmdla.sr.hp.com>
Organization: Hewlett-Packard, Santa Rosa, CA
Path:
dxis!batman!cs.widener.edu!eff!sol.ctr.columbia.edu!spool.mu.edu!sdd.hp.c
om!scd.hp.com!hplextra!hpl-opus!hpnmdla!alanb
Newsgroups: rec.radio.amateur.misc
Lines: 64

Ya gotta feel sorry for UHF connectors. Recent strings on this notes
group lambasted them as worthless at VHF and above, and barely
tolerable at HF. One poster called them "5 dB attenuators", and
many agreed that there must be some sort of conspiracy among ham

equipment manufacturers to inflict such garbage connectors on the
amateur community.

Today I finally remembered to bring some UHF adapters from home so
I could do some relative measurements of UHF versus type-N.
As expected, the type-N showed lower insertion loss at high
frequencies, but the UHF connectors were hardly "5 dB attenuators."

For the test I connected an HP8753 RF network analyzer through
two short BNC cables into the following arrangement:




Then I repeated the measurement with the N adapters replaced with UHF.
I normalized the measurements by replacing the 3 adapters with a BNC
double-female. (That is, this was assumed to have 0 dB loss.)

Since two N or UHF adapters were used, I assume the loss per connector
is half the total. The vertical scale was .1 dB/division, so I
estimated the insertion loss to the nearest .01 dB or so:

--------- Type N ---------- ---------- UHF
------------
FREQ (MHz) TOTAL LOSS PER CONNECTOR TOTAL LOSS PER
CONNECTOR
1.8 0 dB 0 dB 0 dB 0 dB
30 0 0 0 0
100 0 0 0 0
150 0 0 .02 .01
200 0 0 .03 .015
450 0 0 .18 .09
600 0 0 .26 .13
900 0 0 .66 .33
1000 .05 .025 .8 .4
1300 .1 .05 .86 .43
1600 .05 .025 .5 .25
2000 .05 .025 .02 .01

Insertion loss increases until about 1200 MHz, and then starts to
decrease until it is almost zero for the UHF connector at 2 GHz!
At this frequency, the connectors are about 1/4 wave long (1 inch,
assuming .66 velocity factor), so I assume that the two adapters
are providing a conjugate match to each other. This confirms my
assumption that the insertion loss is due to reflections (impedance
mismatch), not absorption (true power loss).

Bottom line: UHF connectors work fine through the VHF range, and
are not too bad even on the 420 MHz band if you can stand about .1 dB
mismatch loss per connector.

By the way, I did not do the full 2-port calibration on the HP8753,
so there is a couple hundredth's dB ripple in the plots. I averaged
this out by eye to come up with the numbers in the above chart.

AL N1AL

P.S. Sorry, I guess I violated the Usenet rule against posting
objective data... :=)

--
+---------------------------------------------+
| Bob Schreibmaier K3PH | E-mail: k3ph@ptd.net |
| Kresgeville, PA 18333 | http://www.dxis.org |
+---------------------------------------------+

# 1998. Re: Reflectors For H.F. use

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-07 21:08:37 UTC
From: Dave <noone@nowhere.com>
Message-ID: <beednYAFv4lGExPcRVn-iw@crocker.com>
Source record: 86893

if the surface is large enough and conductive enough then the incident waves
are reflected. note, this is a MUCH different effect than having several
near 1/2 wave resonant 'reflectors' on a yagi. creating such a surface
requires either a solid conductor like aluminum plate or a fine mesh where
the holes are much less than a wavelength in perimeter. so for 10m you
could get away with a course fence wire, but it has to be electrically
connected at all the joints like a welded 2x4 dog wire... then it has to be
several wavelengths on a side, lets say 3 for now, so about 90' by 90'...
then you have to shape it to focus the beam, a parabolic form is common but
it depends on the phase distribution of the feed system just what is
best.... so for the highest hf band you need a dish about 100' across,
bigger would be better. that is why dishes are used mostly for uhf and
above.

"aunwin@insightbb.com" <aunwin@insightbb.com@insightbb.com> wrote in message
news:VIsjd.69906$R05.17483@attbi_s53...
>
> "Dave" <noone@nowhere.com> wrote in message
> news:4fWdnW-vSqyqlhPcRVn-jg@crocker.com...
> > calling the longer element 'behind' the driven element of a yagi a
> > 'reflector' is poor terminology. it does not actually 'reflect' it just
> > resonates at a slightly different point and the combination of phase and
> > distance from the driven element contribute to the gain in the 'forward'
> > direction and cancel out signals in the 'backward' direction. actual
> > reflection requires a conductive surface several wavelengths long in all
> > directions as is done on parabolic dishes for microwave use.
>
> Dave
> So how does one "create" several conductive surfaces of what ever length
> on a continuos electrical surface? My reflectors will consist of
individual
> elements tho I may well eventually connect them vertically at a later
point.
> If one should look at it in terms of phase and distance then how is the
> length
> of the phase changing element determined on a continuos surface?
>
>
>
>
>
> even when you
> > look at vhf/uhf yagi's that have multiple reflectors they are still only
> > using the phase shift of the resonance of them to add or cancel energy

> from
> > certain directions. the smallest one that might be really called a
> > reflector is the 'corner reflector' antenna sometimes used at vhf and
uhf.
>
> Since my wave length is long, does it really matter if the spacings
between
> reflectors
> is :"open" for a small fraction of a wave length?
> Can fields exist to deter penatration?
>
> My cruising on the net has not provided one example of a "dish" style
> antenna for H.F.
> yet it would appear that there are advantages there if backyard space is
> small,
> especially for multi band use.
> .
> Surely, somewhere in ham radio history, a demarcation line for dish
antennas
> has been ascertained based
> on advantages versus disadvantages ! If gain and f/b ( prime specs for the
> amateur) can be manipulated
> into higher extremes using dishes then is it reluctance to change or to
lead
> that dominates the hobby
> based on the notion that all is now known?
> There seem to be so many advantages with this aproach now that weight
issues
> are overcome
> with foil coated fishing poles that I wonder what it is I am missing in a
> much experimented field where
> this portion has been pre dismissed or where coil dissertation is to prove
> greater inroads in the hobby..
> In this particular case I would welcome negative comments from those
with
> expertise in the field so
> that these aspects can be given more thought,but then expertise is not a
> real requirement since
> so little is written.
>
>
> Regards
> Art
>
>
> >
> > "aunwin@insightbb.com" <aunwin@insightbb.com@insightbb.com> wrote in
> message
> > news:uEfjd.579123$8_6.52336@attbi_s04...
> > > For ham radio it is conventional ( my thoughts) to see reflectors as

> > > element/s placed behind
> > > a feed element where. like other elements in an array receive radio
> > energy
> > > and then reradiate a portion of the received energy.If one wants to
> > emulate
> > > a point
> > > radiation then many elements have to be arranged in parabolic fashion
> such
> > > that all R.F.
> > > received or transmitted meet at a common point.
> > >
> > > Now I really know didly ######about dishes as my world is made up from
> > Yagis
> > > but now
> > > I am starting to think about these things which really raises
questions
> > > about what I had previously accepted
> > > For instance,
> > > 1
> > > Commercial dishes are not made of reflectors with a fraction of a wave
> > > length ( surface is smooth)
> > > So we have some how shifted from 'resonation' to a 'reflection' mode
as
> in
> > > light even tho a resonance
> > > must still some how occur, but how and with what length reflectors (
> > > multiple long wires?)?
> > > 2
> > > If radiation/reception follows a common path then is the dual path
> > radiation
> > > as seen with a Yagi (90 degrees apart)
> > > changed ?
> > > 3
> > > What would the result be if multiple electrical connection lines were
> made
> > > between the horizontal reflectors (vert refl form)?
> > >
> > > The emergency operation is now over after a lousy week in hospital but
I
> > am
> > > grounded for the rest of the year
> > > ( pain and infections and physical inabilities) books and the like is
a
> > > hard task but the laptop is at hand if I can find suitable links to
> study.
> > >
> > > Plans are complete and parts available for a 20 metre dipole with
eight
> > > reflectors set in quasi parabolic form to deliver
> > > 14.5 dbi.BW 63 degrees which I hope then to reduce to 30 degrees for

> added
> > > gain.
> > > Feed dipole will be of variable length for different band use.
> > > Isn't experimentation great when failure is not considered disasterous
> to
> > > ones self esteem and resume?
> > >
> > > Regards
> > > Art
> > >
> > >
> >
> >
>
>

# 1999. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!! _____==___ pemluzov

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-07 21:33:19 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cmm4av$d6t$1@sparta.btinternet.com>
Source record: 86894

"Tom Donaly" wrote > It will be your turn to be stupid next year, Reg, when Tony
> Blair is re-elected, (or whatever you call it over there).

==========

What with his own government, most of the population and some prominent newspapers being against him, and several cabinet ministers having already resigned, its my guess puppy-dog Tony will resign before the next parliamentary election on the grounds of wanting to spend more time with his family. Otherwise there's always the remote possibility of him being found hanging upside down from a lamp post in Downing Street.

Having no constitution we do things more quietly, leisurely and maturely over here. We even managed to get rid of Mrs T who was in tears and without sympathy. But very rich of course.

As for little me, I was born stupid.
----
Reg.

## 2000. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!! _____==___ pemluzov

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-07 21:41:50 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cmm4qu$6tn$1@titan.btinternet.com>
Source record: 86895

```
> Maybe not so scary if you had a decent platform such as "A radio in
> every room and an antenna on every roof."
>
=====================================

- - - - and "Abolishment of Housing Regulations".
```

# 2001. Re: Reflectors For H.F. use

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-07 21:50:51 UTC
From: "aunwin@insightbb.com"
Message-ID: <%Mwjd.10399$5K2.3472@attbi_s03>
Source record: 86896

"Dave" <noone@nowhere.com> wrote in message
news:beednYAFv4lGExPcRVn-iw@crocker.com...
> if the surface is large enough and conductive enough then the incident
waves
> are reflected. note, this is a MUCH different effect than having several
> near 1/2 wave resonant 'reflectors' on a yagi.
Exactly, Which is why there is so little information regarding 1/2 wave
resonant VS
smooth surface reflectors. Modeling shows that it is possibly worth while to
concentrate solely on reflector capture via multi elements as opposed to a
single reflector
and a long boom where as my previous investigation showed that combination
multi element
directors and reflectors showed little advancement. If the drive element is
multi banded then reflectors
would appear as full wave reflecters which would be an advantage.plus
providing the possible ability
for lesser beam width. I also have the feeling that grounding the highest
element will remove local
static effects. First examination shows that feed position is not as
critical as that required
for smooth dish forms
Regards
Art

creating such a surface
> requires either a solid conductor like aluminum plate or a fine mesh where
> the holes are much less than a wavelength in perimeter. so for 10m you
> could get away with a course fence wire, but it has to be electrically
> connected at all the joints like a welded 2x4 dog wire... then it has to
be
> several wavelengths on a side, lets say 3 for now, so about 90' by 90'...
> then you have to shape it to focus the beam, a parabolic form is common
but
> it depends on the phase distribution of the feed system just what is
> best.... so for the highest hf band you need a dish about 100' across,
> bigger would be better. that is why dishes are used mostly for uhf and
> above.
>
> "aunwin@insightbb.com" <aunwin@insightbb.com@insightbb.com> wrote in
message
> news:VIsjd.69906$R05.17483@attbi_s53...
> >
> > "Dave" <noone@nowhere.com> wrote in message

> > news:4fWdnW-vSqyqlhPcRVn-jg@crocker.com...
> > > calling the longer element 'behind' the driven element of a yagi a
> > > 'reflector' is poor terminology. it does not actually 'reflect' it
just
> > > resonates at a slightly different point and the combination of phase
and
> > > distance from the driven element contribute to the gain in the
'forward'
> > > direction and cancel out signals in the 'backward' direction. actual
> > > reflection requires a conductive surface several wavelengths long in
all
> > > directions as is done on parabolic dishes for microwave use.
> >
> > Dave
> > So how does one "create" several conductive surfaces of what ever length
> > on a continuos electrical surface? My reflectors will consist of
> individual
> > elements tho I may well eventually connect them vertically at a later
> point.
> > If one should look at it in terms of phase and distance then how is the
> > length
> > of the phase changing element determined on a continuos surface?
> >
> >
> >
> >
> >
> > even when you
> > > look at vhf/uhf yagi's that have multiple reflectors they are still
only
> > > using the phase shift of the resonance of them to add or cancel energy
> > from
> > > certain directions. the smallest one that might be really called a
> > > reflector is the 'corner reflector' antenna sometimes used at vhf and
> uhf.
> >
> > Since my wave length is long, does it really matter if the spacings
> between
> > reflectors
> > is :"open" for a small fraction of a wave length?
> > Can fields exist to deter penatration?
> >
> > My cruising on the net has not provided one example of a "dish" style
> > antenna for H.F.
> > yet it would appear that there are advantages there if backyard space is
> > small,
> > especially for multi band use.
> > .
> > Surely, somewhere in ham radio history, a demarcation line for dish
> antennas

> > has been ascertained based
> > on advantages versus disadvantages ! If gain and f/b ( prime specs for
the
> > amateur) can be manipulated
> > into higher extremes using dishes then is it reluctance to change or to
> lead
> > that dominates the hobby
> > based on the notion that all is now known?
> > There seem to be so many advantages with this aproach now that weight
> issues
> > are overcome
> > with foil coated fishing poles that I wonder what it is I am missing in
a
> > much experimented field where
> > this portion has been pre dismissed or where coil dissertation is to
prove
> > greater inroads in the hobby..
> > In this particular case I would welcome negative comments from those
> with
> > expertise in the field so
> > that these aspects can be given more thought,but then expertise is not a
> > real requirement since
> > so little is written.
> >
> >
> > Regards
> > Art
> >
> >
> > >
> > > "aunwin@insightbb.com" <aunwin@insightbb.com@insightbb.com> wrote in
> > message
> > > news:uEfjd.579123$8_6.52336@attbi_s04...
> > > > For ham radio it is conventional ( my thoughts) to see reflectors as
> > > > element/s placed behind
> > > > a feed element where. like other elements in an array receive radio
> > > energy
> > > > and then reradiate a portion of the received energy.If one wants to
> > > emulate
> > > > a point
> > > > radiation then many elements have to be arranged in parabolic
fashion
> > such
> > > > that all R.F.
> > > > received or transmitted meet at a common point.
> > > >
> > > > Now I really know didly ######about dishes as my world is made up
from
> > > Yagis
> > > > but now

> > > > I am starting to think about these things which really raises
> questions
> > > > about what I had previously accepted
> > > > For instance,
> > > > 1
> > > > Commercial dishes are not made of reflectors with a fraction of a
wave
> > > > length ( surface is smooth)
> > > > So we have some how shifted from 'resonation' to a 'reflection' mode
> as
> > in
> > > > light even tho a resonance
> > > > must still some how occur, but how and with what length reflectors (
> > > > multiple long wires?)?
> > > > 2
> > > > If radiation/reception follows a common path then is the dual path
> > radiation
> > > > as seen with a Yagi (90 degrees apart)
> > > > changed ?
> > > > 3
> > > > What would the result be if multiple electrical connection lines
were
> > made
> > > > between the horizontal reflectors (vert refl form)?
> > > >
> > > > The emergency operation is now over after a lousy week in hospital
but
> I
> > > am
> > > > grounded for the rest of the year
> > > > ( pain and infections and physical inabilities) books and the like
is
> a
> > > > hard task but the laptop is at hand if I can find suitable links to
> > study.
> > > >
> > > > Plans are complete and parts available for a 20 metre dipole with
> eight
> > > > reflectors set in quasi parabolic form to deliver
> > > > 14.5 dbi.BW 63 degrees which I hope then to reduce to 30 degrees for
> > added
> > > > gain.
> > > > Feed dipole will be of variable length for different band use.
> > > > Isn't experimentation great when failure is not considered
disasterous
> > to
> > > > ones self esteem and resume?
> > > >
> > > > Regards
> > > > Art

> > > >
> > > >
> > >
> > >
> >
> >
>
>

# 2002. Re: Fishing pole element construction facts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-07 21:51:16 UTC
From: Irv Finkleman <finkirv@shaw.ca>
Message-ID: <418E98DE.5FF57CE7@shaw.ca>
Source record: 86897

"aunwin@insightbb.com" wrote:
>
> ANTENNA CONSTRUCTION MATERIALS
>
> I use fishing poles for all my antenna experimentation....

Art,
I can't seem to locate a source of the poles. Do you have
an e-mail or other address for one? I've been looking for a long time.
Thanks in advance.

Irv VE6BP
--
---
Diagnosed Type II Diabetes March 5 2001
Beating it with diet and exercise!
297/215/210 (to be revised lower)
58"/43"(!)/44" (already lower too!)
---
Visit my HomePage at http://members.shaw.ca/finkirv/index.html
Visit my Baby Sofia website at http://members.shaw.ca/finkirv4/index.htm
Visit my OLDTIMERS website at http://members.shaw.ca/finkirv5/index.htm
---
Irv Finkleman,
Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
Calgary, Alberta, Canada

# 2003. Re: Loop antenna electrostatic shields

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-07 22:16:38 UTC
From: Simone <iw5edi_delthis@qsl.net>
Message-ID: <cmm6sj$ll6$1@domitilla.aioe.org>
Source record: 86898

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> ha scritto nel messaggio
news:cmkoum$a5o$1@hercules.btinternet.com...
> The value of the shield on a small loop is an overated old-wives tale.
>
> Having erected it, performance would be better to use the shield itself as
> the loop, by virtue of its much greater conductor diameter.
>

Find some more info on loops here

http://www.dxzone.com/catalog/Antennas/Loop/index.shtml

Simone

# 2004. Re: Facts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-07 22:26:00 UTC
From: Frank <ve6cb@NOSPAM.telus.net>
Message-ID: <Yhxjd.74201$E93.38640@clgrps12>
Source record: 86899

Unfortunate I have only a NEC 2 based program (Nittany Scientific's NEC-Win Pro), but with the Sommerfeld/Norton ground model you can approach the ground to within 1/1000 of a wavelength closely approximating the results of buried wires, and in very close agreement with your "RADIALS2" program. NEC programs do require a value for ground permittivity. NEC 4 based software is more expensive, being in the $800.00 range, plus a $500.00 license from the Lawrence Livermore Laboratory. In any case the data are easily compared with your program results.

I have measured my ground conductivity, but not yet attempted to measure the permittivity.

If anybody wants to get serious with antenna modeling I recommend Ansoft's HFSS (Often known as "Highly Frustrating Structure Simulator"). It costs a mere $30,000, with a $10,000 per year support payment.

Regards,

Frank

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message news:cmkj4q$5fa$1@hercules.btinternet.com...
> Frank wrote -
>> I have also used your software for modeling verticals, and it is
>> in very close to the results produced by NEC. The one problem with NEC 2
>> (Though not with NEC 4) is that it cannot model buried radials, but can
> get
>> very close to the ground.
>
> ================================
>
> The only program I am reasonably familiar with is the several years old
> free
> EZNEC. I don't know whether it has been updated or not and I make very
> little use of it. Come to think of it, I don't make much use of my own
> programs either.
>
> Regarding shallow buried radials in conjunction with a vertical, have you
> tried my recent program RADIALS2 ?
>
> It is intended to demonstrate performance of the radials themselves in a
> given ground rather than antenna performance. Which I suspect is the
> reverse
> of NEC-4.
>
> As you probably know, the effects of above-ground radials change very

> rapidly as they get within a few inches of the ground surface. But once in
> the ground they tend to remain static.
>
> RADIALS2 uses an entirely different, unconventional form of performance
> analysis. If other programs don't take soil permittivity into account at
> HF,
> predictions must lose accuracy. Are the inputs and outputs of NEC-4 in a
> form suitable for a direct comparison with my simple program?
>
> But in view of the large uncertainties involving ground conditions,
> accuracy
> is not worth making much of a song and dance about.
> ----
> Reg, G4FGQ
>
>

# 2005. Re: Facts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-07 22:27:49 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <Fjxjd.75883$OD2.36040@bgtnsc05-news.ops.worldnet.att.net>
Source record: 86900

Cecil,

You appear to have some unique views of superposition and of standing waves.

In simple terms superposition says that one can combine two inputs, and the combined output is equal to the sum of the individual outputs. Not all systems exhibit superposition, of course, but I believe the elementary antennas considered here do indeed follow the principle of superposition with regard to current.

Why do you believe the "net" current somehow has different properties than simply the sum of the two component traveling current waves? You use the term "artifact", as if the net current is inconsequential or even incorrect. Does superposition break down? Distributed network vs. DC or AC model is not an issue, since the superposition must be performed independently at each point in the region of interest.

(You seem to like to use "net", but "total" or "algebraic sum" mean the same thing. I am not interested in any argument about performing the vector math correctly. That must be assumed.)

Standing waves are not static. The current may not "flow", whatever that means, but there is certainly real non-zero current at every point except the exact nodes of the standing wave. If you prefer, the standing wave current oscillates rather than flows, but that is of no special importance here.

Why do you believe standing waves are somehow inferior to traveling waves?

(This message is absolutely serious. No tricks or trolling. If you want to play word games, see ya later.)

73,
Gene
W4SZ

Cecil Moore wrote:

> There is forward current flowing into the bottom of the coil and out
> the top. There is reflected current flowing into the top of the coil
> and out the bottom. The net current is a standing current wave. If we,
> as Kraus suggests, assume that the forward current equals the reflected
> current (relatively small error in doing so) then there is zero net current
> flowing in and out of the coil. The standing wave current is, well, just
> standing there and is not "going" anywhere.
>
> The gross error that a lot of people are making is that standing

> wave current flows. If the forward and reflected currents are equal,
> as Kraus assumes for purpose of discussion, then there is zero net
> current flow through the coil. Yet, net current is what everyone
> is measuring. What they are actually measuring is the value of
> the standing wave current at each end of the coil and it is not
> flowing. It is only an artifact of the superposition of the two
> waves that are flowing.

# 2006. Re: Reflectors For H.F. use

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-07 22:39:44 UTC
From: Dave <noone@nowhere.com>
Message-ID: <dI2dnbHCSderORPcRVn-iQ@crocker.com>
Source record: 86901

"aunwin@insightbb.com" <aunwin@insightbb.com@insightbb.com> wrote in message
news:%Mwjd.10399$5K2.3472@attbi_s03...
>
> "Dave" <noone@nowhere.com> wrote in message
> news:beednYAFv4lGExPcRVn-iw@crocker.com...
> > if the surface is large enough and conductive enough then the incident
> waves
> > are reflected. note, this is a MUCH different effect than having
several
> > near 1/2 wave resonant 'reflectors' on a yagi.
> Exactly, Which is why there is so little information regarding 1/2 wave
> resonant VS
> smooth surface reflectors. Modeling shows that it is possibly worth while
to
> concentrate solely on reflector capture via multi elements as opposed to a
> single reflector
> and a long boom where as my previous investigation showed that combination
> multi element
> directors and reflectors showed little advancement. If the drive element
is
> multi banded then reflectors
> would appear as full wave reflecters which would be an advantage.plus
> providing the possible ability
> for lesser beam width. I also have the feeling that grounding the highest
> element will remove local
> static effects. First examination shows that feed position is not as
> critical as that required
> for smooth dish forms
> Regards
> Art

of course not, because you aren't reflecting. you are inducing currents in
the elements and those currents add up in the direction you want. if you
really want to investigate this you should get one of the good modelling
programs and try it out in various arrangements.

Note, multiple reflector yagis have been around for ages. there are some
good reasons why they aren't common on hf... first they are hard to build to
withstand weather. and second, the added performance on a relatively short
hf yagi is minimal. when you get into very long vhf and uhf yagis it is
more common to see multiple reflectors, but they are mostly used to
eliminate specific side lobes... and even then the only common designs i
remember have a total of 3 reflectors, one on axis of the boom and one on
each side. a similar effect can be done with the so called 'quagi' where
you have a loop element as the reflector and maybe as a driven element then

plane yagi type directors.

# 2007. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!! _____==___ pemluzov

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-07 22:48:11 UTC
From: Piccolo Pete <Sorry@SpamSucks.com>
Message-ID: <4uudnVRbCZfmOxPcRVn-jg@adelphia.com>
Source record: 86902
Cross-posted to: rec.pyrotechnics,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc

> On Sun, 7 Nov 2004 11:31:25 GMT, Victim_of_American_Stupidity@gafbi.ut.us
wrote:
>
>You blithering idiots! You re-elected that imbecile George Bush as your
President.
>He's a complete moron and so are most of you!

"Moron" vs. "Insane suicidal murderers" - not a good situation, I agree.
However, our only other option was a wimp.

>Don't you care what the rest of the world thinks of you?

Certainly I do. I want to be known as the country who helped to wipe out
the insane suicidal murderers.

>Don't you care what impact
>American foreign policy has on the rest of the planet?

Well... yes I do. If we could meet with more cooperation, there would be
much less destruction. This planet is running out of room for dictators.
The destruction in Iraq is being caused by power hungry idiots who think
they can become the next dictator - not by the US. We are attempting to
stabilize the country. We have attempted to help rebuild the country and
the insurgents have murdered the civilian contractors that were there to aid
the Iraqi people.

>Does Iraq look like a success
>to anyone?

Iraq never looked like a success - even when Saddam was in full power. Iraq
could have been a success - but it had a nutcase for a leader. Here you are
in the middle of the "black gold" center of the world and most everyone
still rides camels. That is why this crap happened to it. I have a lot of
hope for the Middle East. I suspect it will eventually rule the planet -
but certainly not with its present attitude - and certainly not without
being united by a common vote of the people.

>Doesn't it bother you that he's alienated every friend you have?

Bush is my buddy. We have the right friends. It was your choice to avoid
friendship.

>Prior to this, it was American policy and the American government that was
so universally
>hated around the world. Now it's going to be 'Americans' we hate.

Hate breeds war and more destruction. When will the folks of your persuasion realize that you need to stop hating? If you are an Iraqi - you should help us help you instead of fighting to support your hate. Look at Japan. A relatively small country that is a HUGE success. They smacked us. We had to smack them back. But we didn't leave them behind - and we won't leave Iraq behind. We all sincerely wish the fighting would stop, but it is clear that Iraq would remain unstable as ever if we just left. There are still way too many "would-be" dictators and nutcases.

>More sympathy
>for Bin Laden... More attacks on American institutions... More isolation. How blind
>can you dumb rednecks in middle-America be, not to see this?

More sympathy for an insane murderer who stirred up a massive wasp nest that stung everyone on the planet - including you? And you call *us* stupid? Bin Laden is the one who caused all of this! Bush HAD to make policies to stop this type of stuff. Your enemy *IS* Bin Laden and people like him - not the US. You can't see this?

>If you get hit again, or your economy goes into a deep depression, the American
>people will be getting exactly what they deserve!

You don't want that to happen. Believe me. You think it's bad now? Do what you can, on your side, to stop breeding hate - and the pyrotechnics will stop.

## 2008. Re: Fishing pole element construction facts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-07 23:00:21 UTC
From: "aunwin@insightbb.com"
Message-ID: <9Oxjd.379852$D%.338717@attbi_s51>
Source record: 86903

They are really called "crappie poles" as they do not have any feed line loops. I will get an E mail for you tomorrow
Any fishing shop will have them if you refer to them as above which separates them from the more expensive "fishing blanks".Found out about all these things when I went to a major fishing show in Chicago where I spoke to all the reps.
You can get thicker wall types but I do not deem them as necessary but carbon type blanks (noodles) can be more useful at triple the cost if excessive bending is to be imposed for any reason but with the loss of stiffness. There is now available sticky back copper foil as hardware stores uprate their inventory for use on outside wood decks where before they used aluminum which is now prohibited for some reason with treated woods!

You can get them in 8,12,16 and 20 foot lengths and all parts have been interchangeable for me in that none fall out
as weight is applied such as ice. where extra tightening then occurs.Some suppliers up their prices to twice what
I have been able to buy them for.

Art KB9MZ

"Irv Finkleman" <finkirv@shaw.ca> wrote in message
news:418E98DE.5FF57CE7@shaw.ca...
> "aunwin@insightbb.com" wrote:
> >
> > ANTENNA CONSTRUCTION MATERIALS
> >
> > I use fishing poles for all my antenna experimentation....
>
> Art,
> I can't seem to locate a source of the poles. Do you have
> an e-mail or other address for one? I've been looking for a long time.
> Thanks in advance.
>
> Irv VE6BP
> --
> ------------------------------------
> Diagnosed Type II Diabetes March 5 2001
> Beating it with diet and exercise!
> 297/215/210 (to be revised lower)
> 58"/43"(!)/44" (already lower too!)
> ------------------------------------
> Visit my HomePage at http://members.shaw.ca/finkirv/index.html
> Visit my Baby Sofia website at http://members.shaw.ca/finkirv4/index.htm
> Visit my OLDTIMERS website at http://members.shaw.ca/finkirv5/index.htm

> ---------------------
> Irv Finkleman,
> Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
> Calgary, Alberta, Canada

# 2009. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!! _____==___ pemluzov

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-07 23:14:13 UTC
From: TBA <TBA@AMERICA.COM>
Message-ID: <L0yjd.8085$Ae.723@newsread1.dllstx09.us.to.verio.net>
Source record: 86904
Cross-posted to: rec.pyrotechnics,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc

"Piccolo Pete" <Sorry@SpamSucks.com> wrote in message
news:4uudnVRbCZfmOxPcRVn-jg@adelphia.com...
>
>> On Sun, 7 Nov 2004 11:31:25 GMT, Victim_of_American_Stupidity@gafbi.ut.us
> wrote:
>>
>>You blithering idiots! You re-elected that imbecile George Bush as your
> President.
>>He's a complete moron and so are most of you!
>
> "Moron" vs. "Insane suicidal murderers" - not a good situation, I agree.
> However, our only other option was a wimp.
>
>>Don't you care what the rest of the world thinks of you?
>
> Certainly I do. I want to be known as the country who helped to wipe out
> the insane suicidal murderers.
>
>>Don't you care what impact
>>American foreign policy has on the rest of the planet?
>
> Well... yes I do. If we could meet with more cooperation, there would be
> much less destruction. This planet is running out of room for dictators.
> The destruction in Iraq is being caused by power hungry idiots who think
> they can become the next dictator - not by the US. We are attempting to
> stabilize the country. We have attempted to help rebuild the country and
> the insurgents have murdered the civilian contractors that were there to
> aid
> the Iraqi people.
>
>>Does Iraq look like a success
>>to anyone?
>
> Iraq never looked like a success - even when Saddam was in full power.
> Iraq
> could have been a success - but it had a nutcase for a leader. Here you
> are
> in the middle of the "black gold" center of the world and most everyone
> still rides camels. That is why this crap happened to it. I have a lot
> of
> hope for the Middle East. I suspect it will eventually rule the planet -
> but certainly not with its present attitude - and certainly not without

> being united by a common vote of the people.
>
>>Doesn't it bother you that he's alienated every friend you have?
>
> Bush is my buddy. We have the right friends. It was your choice to avoid
> friendship.
>
>>Prior to this, it was American policy and the American government that was
> so universally
>>hated around the world. Now it's going to be 'Americans' we hate.
>
> Hate breeds war and more destruction. When will the folks of your
> persuasion realize that you need to stop hating? If you are an Iraqi -
> you
> should help us help you instead of fighting to support your hate. Look at
> Japan. A relatively small country that is a HUGE success. They smacked
> us.
> We had to smack them back. But we didn't leave them behind - and we won't
> leave Iraq behind. We all sincerely wish the fighting would stop, but it
> is
> clear that Iraq would remain unstable as ever if we just left. There are
> still way too many "would-be" dictators and nutcases.
>
>>More sympathy
>>for Bin Laden... More attacks on American institutions... More isolation.
> How blind
>>can you dumb rednecks in middle-America be, not to see this?
>
> More sympathy for an insane murderer who stirred up a massive wasp nest
> that
> stung everyone on the planet - including you? And you call *us* stupid?
> Bin Laden is the one who caused all of this! Bush HAD to make policies to
> stop this type of stuff. Your enemy *IS* Bin Laden and people like him -
> not the US. You can't see this?
>
>>If you get hit again, or your economy goes into a deep depression, the
> American
>>people will be getting exactly what they deserve!
>
> You don't want that to happen. Believe me. You think it's bad now? Do
> what you can, on your side, to stop breeding hate - and the pyrotechnics
> will stop.
>
>

Personally, I don't give a rats ass if you like the US or not. Funny, all
you fags hate us, but yet you come to US for financial aid at some point -
EVEN if you have money from oil. If ya don't like US, then quit trying to
get on our welfare roles. I'm sick and tired of all our tax dollars going to
you scum bags while our elderly and others go untouched with aid. You're all

a bunch of wimps. Our soldiers will do hand to hand combat with you any day of the week. Your people couldn't fart without holding a knife or gun. YOUR people couldn't hold anything over our guys in hand to hand combat. Hell - our female soldiers have more balls than you scum bags. US FOREVER - ALL ELSE (WHO HATES US) - DIE.

TBA (TRUE BLOODED AMERICAN)

# 2010. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!! _____==___ pemluzov

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-07 23:19:36 UTC
From: Don T <-painter-@louvre.org>
Message-ID: <c4yjd.8266$O11.2154@newsread3.news.pas.earthlink.net>
Source record: 86905
Cross-posted to: rec.pyrotechnics,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc

HeH. America in deep depression. And all those "rednecks" with a garage full
of nukes ---- 2nd Amendment approved and sanctioned nukes no less ----
and pocket rockets. Not to mention plain old ordinary "assault weapons".
Pissed off and armed to the teeth. And this limpdick, lowlife, pissant,
trolling Usenet with his message of hate? I wager he is the first one into
the hole. Trying to pull it in behind his sorry ass. Didn't he watch
O'sammy-ben-laden on Teee Veee the other day? Whimpering his message to GW
of "Please don't hurt me, I didn't -really- mean to knock the towers down.
I just wanted to fuck them up a little bit. I didn't know the USA still had
real teeth 'cause I was payin' attention to the limpdick left-liberal peace
freaks America's freedom of speech tolerates. Hell I thought America was
just like Saudi Arabia, the Sudan, and Afghanistan where subversive speech
gets your fucking head chopped off. I didn't realize that in America even
stupid people who have never had an original thought in their life are
allowed to speak as if they were the goddamn King of the World." Eh?

--

Don Thompson

Remmy sez,
Count de Monet.
Unless, of course, you are Baroque.

"Piccolo Pete" <Sorry@SpamSucks.com> wrote in message
news:4uudnVRbCZfmOxPcRVn-jg@adelphia.com...
>
>> On Sun, 7 Nov 2004 11:31:25 GMT, Victim_of_American_Stupidity@gafbi.ut.us
> wrote:
>>
>>You blithering idiots! You re-elected that imbecile George Bush as your
> President.
>>He's a complete moron and so are most of you!
>
> "Moron" vs. "Insane suicidal murderers" - not a good situation, I agree.
> However, our only other option was a wimp.
>
>>Don't you care what the rest of the world thinks of you?
>
> Certainly I do. I want to be known as the country who helped to wipe out
> the insane suicidal murderers.
>
>>Don't you care what impact

>>American foreign policy has on the rest of the planet?
>
> Well... yes I do. If we could meet with more cooperation, there would be
> much less destruction. This planet is running out of room for dictators.
> The destruction in Iraq is being caused by power hungry idiots who think
> they can become the next dictator - not by the US. We are attempting to
> stabilize the country. We have attempted to help rebuild the country and
> the insurgents have murdered the civilian contractors that were there to
> aid
> the Iraqi people.
>
>>Does Iraq look like a success
>>to anyone?
>
> Iraq never looked like a success - even when Saddam was in full power.
> Iraq
> could have been a success - but it had a nutcase for a leader. Here you
> are
> in the middle of the "black gold" center of the world and most everyone
> still rides camels. That is why this crap happened to it. I have a lot
> of
> hope for the Middle East. I suspect it will eventually rule the planet -
> but certainly not with its present attitude - and certainly not without
> being united by a common vote of the people.
>
>>Doesn't it bother you that he's alienated every friend you have?
>
> Bush is my buddy. We have the right friends. It was your choice to avoid
> friendship.
>
>>Prior to this, it was American policy and the American government that was
> so universally
>>hated around the world. Now it's going to be 'Americans' we hate.
>
> Hate breeds war and more destruction. When will the folks of your
> persuasion realize that you need to stop hating? If you are an Iraqi -
> you
> should help us help you instead of fighting to support your hate. Look at
> Japan. A relatively small country that is a HUGE success. They smacked
> us.
> We had to smack them back. But we didn't leave them behind - and we won't
> leave Iraq behind. We all sincerely wish the fighting would stop, but it
> is
> clear that Iraq would remain unstable as ever if we just left. There are
> still way too many "would-be" dictators and nutcases.
>
>>More sympathy
>>for Bin Laden... More attacks on American institutions... More isolation.
> How blind
>>can you dumb rednecks in middle-America be, not to see this?

>
> More sympathy for an insane murderer who stirred up a massive wasp nest
> that
> stung everyone on the planet - including you? And you call *us* stupid?
> Bin Laden is the one who caused all of this! Bush HAD to make policies to
> stop this type of stuff. Your enemy *IS* Bin Laden and people like him -
> not the US. You can't see this?
>
>>If you get hit again, or your economy goes into a deep depression, the
> American
>>people will be getting exactly what they deserve!
>
> You don't want that to happen. Believe me. You think it's bad now? Do
> what you can, on your side, to stop breeding hate - and the pyrotechnics
> will stop.
>
>

# 2011. Re: Reflectors For H.F. use

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-07 23:20:49 UTC
From: "aunwin@insightbb.com"
Message-ID: <l5yjd.311456$wV.72126@attbi_s54>
Source record: 86906

David,
The way all of this came about was that I modelled a 0,1wave length boom
with out restriction
to the number of elements used and without restriction regarding in-line
height.
It was then a surprise to me that where gain was the priority the NEC
program evolved a design with
multi reflectors in quasi parabolic form with parallel elements such as I
mixed up smooth dish
thoughts with standard antenna array thoughts. Thus my search for info and
outside thought.
Now if I placed a constant current COIL in the feed dipole responses would
over whelm me
and place me in a position of immobility (smile)
Regards
Art

ssage news:dI2dnbHCSderORPcRVn-iQ@crocker.com...
>
> "aunwin@insightbb.com" <aunwin@insightbb.com@insightbb.com> wrote in
message
> news:%Mwjd.10399$5K2.3472@attbi_s03...
> >
> > "Dave" <noone@nowhere.com> wrote in message
> > news:beednYAFv4lGExPcRVn-iw@crocker.com...
> > > if the surface is large enough and conductive enough then the incident
> > waves
> > > are reflected. note, this is a MUCH different effect than having
> several
> > > near 1/2 wave resonant 'reflectors' on a yagi.
> > Exactly, Which is why there is so little information regarding 1/2 wave
> > resonant VS
> > smooth surface reflectors. Modeling shows that it is possibly worth
while
> to
> > concentrate solely on reflector capture via multi elements as opposed to
a
> > single reflector
> > and a long boom where as my previous investigation showed that
combination
> > multi element
> > directors and reflectors showed little advancement. If the drive element
> is
> > multi banded then reflectors

> > would appear as full wave reflecters which would be an advantage.plus
> > providing the possible ability
> > for lesser beam width. I also have the feeling that grounding the
highest
> > element will remove local
> > static effects. First examination shows that feed position is not as
> > critical as that required
> > for smooth dish forms
> > Regards
> > Art
>
> of course not, because you aren't reflecting. you are inducing currents
in
> the elements and those currents add up in the direction you want. if you
> really want to investigate this you should get one of the good modelling
> programs and try it out in various arrangements.
>
> Note, multiple reflector yagis have been around for ages. there are some
> good reasons why they aren't common on hf... first they are hard to build
to
> withstand weather. and second, the added performance on a relatively
short
> hf yagi is minimal. when you get into very long vhf and uhf yagis it is
> more common to see multiple reflectors, but they are mostly used to
> eliminate specific side lobes... and even then the only common designs i
> remember have a total of 3 reflectors, one on axis of the boom and one on
> each side. a similar effect can be done with the so called 'quagi' where
> you have a loop element as the reflector and maybe as a driven element
then
> plane yagi type directors.
>
>

# 2012. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!! _____==___ pemluzov

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-07 23:27:39 UTC
From: Bob Miller <rmiller47@satx.rr.com>
Message-ID: <tcbto0d6gnqfoitt8bp780qla36lt248cg@4ax.com>
Source record: 86907
Cross-posted to: rec.pyrotechnics,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc

On Sun, 7 Nov 2004 16:42:25 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>
>> You blithering idiots! You re-elected that imbecile George Bush as your
>President.
>> He's a complete moron and so are most of you!
>> -
>==============================
>
>Your sentiments are world wide. But to be correct, only 51 percent of the
>population voted for him. So there's still hope.
>
>Nevertheless, the USA, with the aggressive populace armed to the teeth and
>with 15,000 gun-deaths in the homes and streets of US towns and cities every
>year, has taken yet another step towards the next civil war.
>
>Who needs suicidal terrorists?
>
>

Reg, you're really a little out of it. We're just clicking our heels
at the thought of four more years of M. Bush. What it all comes down
to is rotting chickens. Not sure you Brits understand the theory
behind ol' dogs and rotting chickens -- if not, try this link:

http://www.dfw.com/mld/dfw/news/columnists/molly_ivins/

Hey, have another drumstick!

Bob
k5qwg

## 2013. Re: Fishing pole element construction facts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-07 23:29:26 UTC
From: Irv Finkleman <finkirv@shaw.ca>
Message-ID: <418EAFE1.44EB7106@shaw.ca>
Source record: 86908

"aunwin@insightbb.com" wrote:
>
> They are really called "crappie poles" as they do not have any feed line
> loops. I will get an E mail for you tomorrow

Thanks Art -- I'll hang on the the e-mail address. The local fishing shops have not been able to help me.

Irv
---
Diagnosed Type II Diabetes March 5 2001
Beating it with diet and exercise!
297/215/210 (to be revised lower)
58"/43"(!)/44" (already lower too!)
---
Visit my HomePage at http://members.shaw.ca/finkirv/index.html
Visit my Baby Sofia website at http://members.shaw.ca/finkirv4/index.htm
Visit my OLDTIMERS website at http://members.shaw.ca/finkirv5/index.htm
---
Irv Finkleman,
Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
Calgary, Alberta, Canada

# 2014. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!! _____==___ pemluzov

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-08 00:17:32 UTC
From: "aunwin@insightbb.com"
Message-ID: <wWyjd.311556$wV.264051@attbi_s54>
Source record: 86909

Reg things can change very quickly when Bush learns to use the telephone the right way up
Art
"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message news:cmm4av$d6t$1@sparta.btinternet.com...
>
> "Tom Donaly" wrote > It will be your turn to be stupid next year, Reg, when
> Tony
> > Blair is re-elected, (or whatever you call it over there).
>
> ==========
>
> What with his own government, most of the population and some prominent
> newspapers being against him, and several cabinet ministers having already
> resigned, its my guess puppy-dog Tony will resign before the next
> parliamentary election on the grounds of wanting to spend more time with his
> family. Otherwise there's always the remote possibility of him being found
> hanging upside down from a lamp post in Downing Street.
>
> Having no constitution we do things more quietly, leisurely and maturely
> over here. We even managed to get rid of Mrs T who was in tears and without
> sympathy. But very rich of course.
>
> As for little me, I was born stupid.
> ----
> Reg.
>
>

# 2015. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!! _____==___ pemluzov

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-08 00:19:33 UTC
From: Piccolo Pete <Sorry@SpamSucks.com>
Message-ID: <NpidnY134bd6JhPcRVn-uQ@adelphia.com>
Source record: 86910
Cross-posted to: rec.pyrotechnics,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc

"Don T" <-painter-@louvre.org> wrote in message
news:c4yjd.8266$O11.2154@newsread3.news.pas.earthlink.net...
> HeH. America in deep depression. And all those "rednecks" with a garage
full
> of nukes ---- 2nd Amendment approved and sanctioned nukes no
s ----
> and pocket rockets. Not to mention plain old ordinary "assault weapons".
> Pissed off and armed to the teeth. And this limpdick, lowlife, pissant,
> trolling Usenet with his message of hate? I wager he is the first one into
> the hole. Trying to pull it in behind his sorry ass. Didn't he watch
> O'sammy-ben-laden on Teee Veee the other day? Whimpering his message to GW
> of "Please don't hurt me, I didn't -really- mean to knock the towers
down.
> I just wanted to fuck them up a little bit. I didn't know the USA still
had
> real teeth 'cause I was payin' attention to the limpdick left-liberal
peace
> freaks America's freedom of speech tolerates. Hell I thought America was
> just like Saudi Arabia, the Sudan, and Afghanistan where subversive speech
> gets your fucking head chopped off. I didn't realize that in America even
> stupid people who have never had an original thought in their life are
> allowed to speak as if they were the goddamn King of the World." Eh?
>
> --
>
> Don Thompson

Um, Don... I didn't see that Teee Veee thing. Got a link to something on
this?

Sorry to the groups. But this kind of gets me - and every once in a while
it is nice to talk about something other than charcoal :-)

## 2016. Re: Loop antenna electrostatic shields

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-08 00:25:07 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <f_ednZIQw5tRIRPcRVn-3w@comcast.com>
Source record: 86911

"Tom Donaly" <dtdonaly@sbcglobal.net> wrote in message
news:y_hjd.5712$zx1.3405@newssvr13.news.prodigy.com...
> Yuri Blanarovich wrote:
>>>Thus, the shield IS the antenna, and the loop is the means to couple the
>>>energy out of the short dipole. Thus, it really isn't a magnetic antenna
>>>at
>>>all - it's a dipole!
>>>
>>>Tom, W8JI has a better, more detailed explanation at his website (a great
>>>resource) at http://www.w8ji.com/magnetic_receiving_loops.htm
>>>
>>>
>>
>>
>> Looks like another "debunked" fact by "Tom noname" W8JI. (Welcome back
>> Tom ?:-)
>>
>> The shield IS an electrostatic SHIELD and wires inside are the ANTENNA.
>> If you want good efficient, electrostatically shielded small loop, take
>> copper
>> or aluminum tubing, bend it in a circle about 1m diameter (for around
>> 160m
>> band). I made it of two pieces, joined at the bottom in metal electrical
>> box.
>> Top of the loop is open and insulated with plastic tubing. Then thread
>> wire
>> through the loop, three turns, bring the ends into the junction box and
>> connect
>> trimmer capacitor (about 1.5k ?) across the ends (not connected to
>> anything
>> else). Then thread another single turn loop through the tubing. In the
>> junction
>> box, connect one end to the coax shield and the second end to trimmer
>> capacitor
>> (about 500 pF ?) in series with the center conductor of the coax. Shield
>> and
>> mast holding it can be grounded at the installation place. I actually
>> used low
>> power transmiter and SWR bridge to tune the loop, now there are nice
>> antenna
>> analyuzers to do it. The three turns are resonated to operating frequency
>> with capacitor and that is
>> the ANTENNA. The single turn loop is the coupling and trimmer provides
>> match to

>> the coax feedline. The tubing is a SHIELD which helps with suppressing
>> the
>> noise and interference from nearby sources. I have also used this loop as
>> a coupling to Beverage antenna (positioned at the
>> end of Beverage), where it provided less noise than beverage alone.
>>
>> Don't believe everything you read at W8JI web pages. I would like to see
>> a short "dipole" (NOT), really short piece of tubing, which
>> is attached to a mast and grounded to act as an antenna on low
>> frequencies.
>> Having small loop, insulated and properly fed or coupled to, is another
>> thing.
>> You can have single loop or turn antenna too, but above described antenna
>> is
>> "magnetic" or electrostatically shielded small loop antenna which
>> provides more
>> signal and better discrimination from nearby interference.
>>
>> Yuri, K3BU.us
>
> Don't believe everything you read here, either. For a good treatise on
> how the shielded loop works, and what it's good for, read Glenn S. Smith's
> (Georgia Institute of Technology) article "Shielded Loop
> Antenna" in Richard C. Johnson's _Antenna Engineering Handbook_.
> 73,
> Tom Donaly, KA6RUH

There is also a reasonably good discussion in the ARRL Antenna Book. The
section on direction finding antennas discusses the directivity of shielded
loops vs loop antennas.

Tam/WB2TT
>

# 2017. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!! _____==___ pemluzov

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-08 00:39:44 UTC
From: k3bu@aol.comNoUsama
Message-ID: <20041107193944.22097.00000396@mb-m06.aol.com>
Source record: 86912

Nice to get some "evaluation" from losers that still drive on the wrong side of the road :-) They "know" more about us, then we do :-)
Stick your noses into your Europeeing socialist experiment. You should have learned from your Soviet comrades.
Without "stupid" Americans, you would be now speaking German.
Take Kerry and make him king in your glorious kingdom, he will speed up its demise.

73 BUm

# 2018. Re: Loop antenna electrostatic shields

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-08 00:55:10 UTC
From: k3bu@aol.comNoUsama
Message-ID: <20041107195510.22097.00000397@mb-m06.aol.com>
Source record: 86913

>
>
>Find some more info on loops here
>
>http://www.dxzone.com/catalog/Antennas/Loop/index.shtml
>
>Simone
>
>

One has to be careful in distinguishing between small loop vs.
Electrostatically shielded ("magnetic") small loop antennas.
Small loop is typically less than 1/4 wave single loop made of tubing (low
resistance - losses) and with efficient matching network.
The shielded small loop is variation of small loop antennas using electrostatic
shield (tubing with gap - opening)

Above referenced sites seem to use the name Magnetic Loop for wrong antennas
(just simple loop).

Got that Reg, Tom, Dick and Harry?

Yuri, K3BU.us

## 2019. Re: amaeteur radio

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-08 00:56:44 UTC
From: Tom Ring <news0000@taring.org>
Message-ID: <418ec44d$0$91003$39cecf19@news.twtelecom.net>
Source record: 86914

Brian Stephanik wrote:

> Hi, I'm part of an amateur radio astronomy group trying to get a dish on
> top of a roof to work. We have much of the equipment, but are having
> trouble putting it together, as far as how exactly to hook everything
> up. Would this be the right newsgroup to post to? Thanks.
>
> -brian

Brian

I would recommend contacting K1RQG, who runs the 70cm and above EME net
on weekend mornings. He can point you at one or more people that
currently use state of the art dish feeds and preamp designs for 432Mhz
through 49Ghz moonbounce, and know the pitfalls plus the tricks to get
your best system receive performance.

Please respond to my address as shown, and I will send you his address
in an off newsgroup email. Joe doesn't need the spam that he might get
if I published his address here.

tom
K0TAR

# 2020. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!! _____==___ pemluzov

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-08 00:59:44 UTC
From: sideband <AINO8SPAMW@cac.net>
Message-ID: <4yzjd.20544$md.3760@newssvr31.news.prodigy.com>
Source record: 86915
Cross-posted to: rec.pyrotechnics,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc

Don't feed the troll.

Victim_of_American_Stupidity@gafbi.ut.us wrote:
<drivel snipped>

# 2021. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!! _____==___ pemluzov

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-08 01:24:34 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <418ec8df$1_1@127.0.0.1>
Source record: 86916

Howard wrote:
> Cecil Moore <w5dxp@hotmail.com> wrote:
>>Actually, only roughly 30% voted for him. If all the potential
>>voters who didn't bother to vote had voted for me, I would
>>have gotten more votes than Bush or Kerry. Scarey, huh?
>
> Maybe not so scary if you had a decent platform such as "A radio in
> every room and an antenna on every roof."

How about the only valid funtion of government is to protect the
rights of the individual citizens? For that, we need a police
force to protect us from criminals, armed forces to protect
us from foreign powers, and a court system to enforce the
laws. That's it, nothing else needed.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

## 2022. Re: Facts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-08 01:35:21 UTC
From: Frank <ve6cb@NOSPAM.telus.net>
Message-ID: <t3Ajd.74216$E93.72681@clgrps12>
Source record: 86917

"Wes Stewart" <n7ws_@_yahoo.com> wrote in message
news:ao9so0p46rb3tuc3lf8bv57h2gmhf18f9m@4ax.com...
> On Sun, 07 Nov 2004 04:31:00 GMT, "Frank" <ve6cb@NOSPAM.telus.net>
> wrote:
>
>
> Hi Frank,
>
> |Thanks for your comments Reg. The fact is my graph is produced in Excel
> ......
> |...........validity of my results -- or the validity of the code.
>
> I haven't run your code, but I did something similar, and announced
> the results here, almost a year ago. Perhaps that explains the lack of
> response.
>
> http://www.qsl.net/n7ws/Loaded%20antennas.htm
>
> or in downloadable form:
>
> http://www.qsl.net/n7ws/Loaded_Antennas.pdf
>
> the antenna files are here:
>
> http://www.qsl.net/n7ws/AntennaModels.zip
>
> Regards,
>
> Wes

Thanks for the information Wes. I have only recently noticed the loading coil discussions going on, so guess I missed a lot of the earlier postings. Your curves are very similar to mine, although I plotted only those currents within the loading coil, that are spaced by the winding separation (Which happens to be the same as the overall segmentation). The far field is proportional to the portion of the current (within the helix) in the "z" direction, and assume that the x and y components are cancelled out. Such plotting seems to be supported by computing the integral of I(z)dz -- while realizing the limitation of such expressions.

I just tried to run your EZNEC files, but cannot since I only have the demo program. Will have to figure out a way to extract the NEC code.

The qsl.net site is incredibly slow, I had to make a couple of attempts to download your files.

Regards,

Frank

## 2023. Re: Facts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-08 01:44:49 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <418ecd9e$1_2@127.0.0.1>
Source record: 86918

Gene Fuller wrote:
> Why do you believe the "net" current somehow has different properties
> than simply the sum of the two component traveling current waves?

Because the net current is a *STANDING WAVE* made up of equal magnitudes
of current flowing in opposite directions. That makes the net current
zero, Gene. Standing wave current doesn't flow. The RMS value stands still.
Standing waves are only an artifact of the superposition process. Everything
that needs to be known involves the two traveling waves that cause the
standing wave. Asserting that standing waves flow into the bottom of a
loading coil and out the top shows a complete ignorance of how standing
wave antennas really work. After that false premise, none of the
associated conclusions are valid.

> Standing waves are not static.

The RMS value of a standing wave at any point is indeed static.

> The current may not "flow", whatever that
> means, but there is certainly real non-zero current at every point
> except the exact nodes of the standing wave. If you prefer, the standing
> wave current oscillates rather than flows, but that is of no special
> importance here.

It is of infinite importance. If the standing wave current oscillates in
place, it doesn't flow through the coil. W8JI says it flows into the bottom
of the coil and out the top. Nothing could be farther from the facts of physics.

> Why do you believe standing waves are somehow inferior to traveling waves?

Standing waves are an artifact of the superposition of two traveling waves.
Standing waves have a constant differing RMS value at every point on the
transmission line. Traveling waves travel and have the same RMS value all
up and down a lossless transmission line. What is it about that concept
that you don't understand?
--
73, Cecil http://www.qsl.net/w5dxp

----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

# 2024. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!! _____==___ pemluzov

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-08 01:47:24 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <418ece38$1_2@127.0.0.1>
Source record: 86919
Cross-posted to: rec.pyrotechnics,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc

Bill Turner wrote:

> "Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote:
>>has taken yet another step towards the next civil war.
>
> Puh-leeez. We learned that lesson more than a century ago.

Heh, heh, Reg wishes the gun control laws had been in force in
the colonies in 1776. :-)
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

## 2025. Re: Facts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-08 02:33:30 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <_VAjd.860908$Gx4.146236@bgtnsc04-news.ops.worldnet.att.net>
Source record: 86920

Cecil,

Thanks.

I thought I understood the situation. Now I am certain.

Bye. :-)

73,
Gene
W4SZ

Cecil Moore wrote:
> Gene Fuller wrote:
>
>> Why do you believe the "net" current somehow has different properties
>> than simply the sum of the two component traveling current waves?
>
>
> Because the net current is a *STANDING WAVE* made up of equal magnitudes
> of current flowing in opposite directions. That makes the net current
> zero, Gene. Standing wave current doesn't flow. The RMS value stands still.
> Standing waves are only an artifact of the superposition process.
> Everything
> that needs to be known involves the two traveling waves that cause the
> standing wave. Asserting that standing waves flow into the bottom of a
> loading coil and out the top shows a complete ignorance of how standing
> wave antennas really work. After that false premise, none of the
> associated conclusions are valid.
>
>> Standing waves are not static.
>
>
> The RMS value of a standing wave at any point is indeed static.
>
>> The current may not "flow", whatever that means, but there is
>> certainly real non-zero current at every point except the exact nodes
>> of the standing wave. If you prefer, the standing wave current
>> oscillates rather than flows, but that is of no special importance here.
>
>
> It is of infinite importance. If the standing wave current oscillates in
> place, it doesn't flow through the coil. W8JI says it flows into the bottom
> of the coil and out the top. Nothing could be farther from the facts of
> physics.
>

>> Why do you believe standing waves are somehow inferior to traveling
>> waves?
>
>
> Standing waves are an artifact of the superposition of two traveling waves.
> Standing waves have a constant differing RMS value at every point on the
> transmission line. Traveling waves travel and have the same RMS value all
> up and down a lossless transmission line. What is it about that concept
> that you don't understand?

## 2026. Re: Loop antenna electrostatic shields

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-08 03:04:48 UTC
From: Tom <noname@noprovider.nodomain>
Message-ID: <knBjd.1529$jC5.1407@trnddc07>
Source record: 86772

Well, don't have access to that reference. I'm sure that it would clarify some
questions. Access to the once great Collins technical library is gone (sigh).

Built a couple models in MMANA. One for a shorted loop, and one for an
open loop. As expected, the shorted loop is vertically polarized, and the pattern
is in-line with the loop. [a magnetic flux pickup antenna].

Upon opening the loop, it forms a small dipole, with the two ends near each other.
It is horizontally polarized, and the directivity is perpendicular to the shorted loop.
[an electric field pickup antenna].

Of course it's hard to tell exactly the voltages that would produced by these two
different antennas, and how they would combine, magnitude wise. Rough order
of magnitude in MMANA is they are within a few dB for a diamond shape, 1m on
a side at 3.5 MHz. But this would depend on how well the magnetic coil coupled
to the dipole, and that's hard to tell in MMANA.

It would seem from this that the electrostatic shield does not necessarily help
things because it appears to degrade the directivity [assuming the magnitudes of the
two components are roughly similar ]. It would be interesting to see in real life if
the shield did degrade the nulls of the unshielded loop (accounting for the polarization
change).

-- Tom

"Tom Donaly" <dtdonaly@sbcglobal.net> wrote in message
news:y_hjd.5712$zx1.3405@newssvr13.news.prodigy.com...
>
> Don't believe everything you read here, either. For a good treatise on
> how the shielded loop works, and what it's good for, read Glenn S. Smith's
> (Georgia Institute of Technology) article "Shielded Loop
> Antenna" in Richard C. Johnson's _Antenna Engineering Handbook_.
> 73,
> Tom Donaly, KA6RUH
>

# 2027. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!! _____==___ pemluzov

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-08 04:16:52 UTC
From: "aunwin@insightbb.com"
Message-ID: <UqCjd.59851$HA.53232@attbi_s01>
Source record: 86773

Outch Yuri that is not very nice.!
The U.K. has a german lineage in the royal family and Germany certainly did not want
the U.K. and the Commonwealth to enter the war.( They begged otherwise)
I suppose that the U.S. could have asked us to join them in a resistance after Pearl Harbour
forced them into battle several years later but Russia would certainly not had the Russian
winter to back them up if they were not delayed by the Battle of Britain and possibly
finished up as the Worlds economic giant!
Do you think that the U.K. was silly to declare war alone on September 3 1939?
From a personal point of view my Dad would not have been boarding a boat for Dunkirk and
London would not have been subject to the Blitz and I would have known little of the trials of war
that awaited England's shores from a shore 21 miles away..
Would the UK have benefitted by waiting to the end of '42 for a request by the U.S. or, to the point.
how should the U.K have handled things if they had the benefit of your own personal wisdom and fighting career
and battle experiences?
Nothing personal but I am very proud of that centuries old saying that
" In the corner of every battle field there lies a piece of England" which is justly earned
and you just waving a flag of your new country does not release one from the follies of the past.
Yuri, you are out of your league in your personal insults whether it be to an individual or a Country
I am proud to be but a small piece of England and to have worn a British soldiers uniform even tho
I now live with my American cousins.
Art Unwin KB9MZ.....XG.

"Yuri Blanarovich" <k3bu@aol.comNoUsama> wrote in message news:20041107193944.22097.00000396@mb-m06.aol.com...
> Nice to get some "evaluation" from losers that still drive on the wrong side of
> the road :-) They "know" more about us, then we do :-)
> Stick your noses into your Europeeing socialist experiment. You should have
> learned from your Soviet comrades.

> Without "stupid" Americans, you would be now speaking German.
> Take Kerry and make him king in your glorious kingdom, he will speed up
its
> demise.
>
> 73 BUm

# 2028. Re: Reflectors For H.F. use

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-08 04:30:42 UTC
From: gmz79@aol.comnospam
Message-ID: <20041107233042.21692.00000238@mb-m14.aol.com>
Source record: 86774

A baseball / softball field backstop does FB for 6 and 10meter mobile, just
trying to explain to the cops why you parked on the infield is rough! Do expect
to be asked to walk the baseline heel/
toe Hi
73
WG8Z
Greg Z
to thine own sound be true
WG8Z

# 2029. Re: Fishing pole element construction facts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-08 04:39:27 UTC
From: Bob <spam@fcc.gov>
Message-ID: <3MCjd.1637$SC5.782@trnddc01>
Source record: 86775

There was an article in QST about using fishing poles for a quad. The name, address and phone is below. I looked them up sometime or the other and one or both had a web site and online catalog.

Bob Newton W5RN

==========

From "A Light and Sturdy Quad for 10 and 15 Meters", QST July 1991, page 30 by Kevin Wellenius KA3PDM

Bass Pro Shops, PO Box 4046, Springfield, MO 65808-4046, tel 800-227-7776. Model type and price vary from time to time. Items may be available at sale price. (Another supplier of similar poles [Tuff-Lite Crappie Master, RFP 123 12-foot fiberglass poles] is B&M, PO Box 231, West Point, MS 39773, tel 601-494-5092 for the name of you nearest dealer)

==========

"Irv Finkleman" <finkirv@shaw.ca> wrote in message news:418EAFE1.44EB7106@shaw.ca...
> "aunwin@insightbb.com" wrote:
> >
> > They are really called "crappie poles" as they do not have any feed line
> > loops. I will get an E mail for you tomorrow
>
> Thanks Art -- I'll hang on the the e-mail address. The local fishing shops
> have not been able to help me.
>
> Irv
> ---
> Diagnosed Type II Diabetes March 5 2001
> Beating it with diet and exercise!
> 297/215/210 (to be revised lower)
> 58"/43"(!)/44" (already lower too!)
> ---
> Visit my HomePage at http://members.shaw.ca/finkirv/index.html
> Visit my Baby Sofia website at http://members.shaw.ca/finkirv4/index.htm
> Visit my OLDTIMERS website at http://members.shaw.ca/finkirv5/index.htm
> ---
> Irv Finkleman,

> Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
> Calgary, Alberta, Canada

# 2030. Re: Loop antenna electrostatic shields

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-08 04:56:18 UTC
From: Tom <noname@noprovider.nodomain>
Message-ID: <S%Cjd.3153$rx5.2079@trnddc06>
Source record: 86776

Managed to model the shielded loop in MMANA. Single turn loop, with
one nearby wire as shield, and two nearby wires as shield. Set the spacing
of the wires 10mm and 5mm away from the loop, didn't make any difference
in results. [using 0.8mm wires].

The single shield wire improved the E-field rejection a little bit (maybe 3
db)
over the unshielded loop. Two shield wires degraded the E-field rejection as
compared to the single shield, but still a tiny bit better than the
unshielded loop
(maybe 1 dB better).

Pretty much the shield provides very little E-field coupling compared to the
H-field response of the loop.

So I'll retract my initial statement.

-- Tom

# 2031. Re: Facts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-08 04:57:36 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <418eface$1_3@127.0.0.1>
Source record: 86777

Gene Fuller wrote:
> I thought I understood the situation. Now I am certain.

Hopefully, we can lay this thing to rest soon. The forward current
flows into the bottom of the coil and out the top. The reflected
current flows into the top of the coil and out the bottom. Those
two currents are very close to being equal magnitudes but their
phases are rotating in opposite directions. That is not a job
for the lumped circuit model. That's a job for the distributed
network model, something that you guys seem to have first ignored
and later tried to sweep under the rug.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

# 2032. Re: Fishing pole element construction facts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-08 05:23:11 UTC
From: Howard <mensch90249@yahoo.com>
Message-ID: <0h0uo0hqs2uqjkc3q8frde161lqj7ju1l3@4ax.com>
Source record: 86778

On Sun, 07 Nov 2004 23:29:26 GMT, Irv Finkleman <finkirv@shaw.ca>
wrote:

>"aunwin@insightbb.com" wrote:
>>
>> They are really called "crappie poles" as they do not have any feed line
>> loops. I will get an E mail for you tomorrow
>
>Thanks Art -- I'll hang on the the e-mail address. The local fishing shops
>have not been able to help me.
>
>Irv
>
Irv,
Pardon the exceedingly long link, but this may help - crappie poles
from Cabela's. I've ordered from them in the past and have been
pleased with their service.

Howard

http://www.cabelas.com/cabelas/en/templates/product/horizontal-item.jhtml;jsessionid=4PKRM
V0PJJUVDTQSNOKCCNWOCJVZOIWE?id=0011698115800a&navAction=push&navCount=2&indexId=cat20238&p
odId=0011698&catalogCode=IE&parentId=cat20238&parentType=index&rid=&_DARGS=%2Fcabelas%2Fen
%2Fcommon%2Fcatalog%2Fitem-link.jhtml_A&_DAV=MainCatcat20166&hasJS=true

if that fails, here is their main page:
http://www.cabelas.com/

## 2033. Re: PL-259 loss?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-08 06:00:07 UTC
From: Roger <Delete-Invallid.stuff.groups@tm.net>
Message-ID: <hq2uo01pfl64qo0cm9lg8cbb6el90qgcr4@4ax.com>
Source record: 86779

On Sat, 6 Nov 2004 10:38:47 -0800, "Keyboard In The Wilderness"
<Key@Kennel.net> wrote:

>Your answer may be found at URL:
>http://lists.contesting.com/archives/html/TenTec/2004-05/msg00258.html

And it's not enough to be worried about even at 450

Roger Halstead (K8RI & ARRL life member)
(N833R, S# CD-2 Worlds oldest Debonair)
www.rogerhalstead.com

# 2034. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!! _____==___ pemluzov

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-08 06:17:31 UTC
From: Roger <Delete-Invallid.stuff.groups@tm.net>
Message-ID: <p63uo0lr3g1t3tpuv3pudfc12shr3oscp2@4ax.com>
Source record: 86780
Cross-posted to: rec.pyrotechnics,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc

On Sun, 7 Nov 2004 09:52:15 -0800, "CW" <cmagers@earthlink.net> wrote:

>
>"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
>news:cmlj9h$ieu$1@sparta.btinternet.com...
>
>> Your sentiments are world wide. But to be correct, only 51 percent of the
>> population voted for him.

And he did get the popular vote this time in addition to the electoral
votes.
>
>It is rather sad that 49% of voters are so stupid.
>
>> Nevertheless, the USA, with the aggressive populace armed to the teeth
>
>And you would know this how? From living here?
>
Hanging around one of the inner city bars?

>
>> with 15,000 gun-deaths
>
>Our guns are dying? First I've heard of it. I always thought they were
>inanimate objects. You''re telling me they are alive?

Yah, but with something like 43,000 automobile deaths (cars die too,
mine did right in the driveway this morning) and no one gets excited,
why get concerned about 15,000. We need to outlaw cars first.

Actually accidental deaths by guns is its lowest since 1907 and
violent crime is at its lowest in 20 years even with the economy
suffering a tad.

While the rest of the world is seeing strong increases we are seeing
decreases in violent crime. In addition, every state that has passed
"right to carry" laws, firearms crimes have gone down.

Contrary to popular belief outside the US we are just normal people
and it's not at all like the old "Wild West". OTOH a high percentage
of the population does own firearms.

Now, I gotta go clean my AK-47. Deer season is opening soon.

Roger
>>
>>
>>
>

# 2035. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!! _____==___ pemluzov

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-08 06:27:21 UTC
From: matt wilson <mwilson2@nospam.bigpond.net.au>
Message-ID: <dlEjd.26245$K7.19721@news-server.bigpond.net.au>
Source record: 86781
Cross-posted to: rec.pyrotechnics,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc

Strange.... the second part actually seems to make more sense!

<Victim_of_American_Stupidity@gafbi.ut.us> wrote in message
news:sqelcyzodllzlnv0xyctlrvh1enzjpk@4ax.com...
You blithering idiots! You re-elected that imbecile George Bush as your
President.
He's a complete moron and so are most of you!
-
Don't you care what the rest of the world thinks of you? Don't you care what
impact
American foreign policy has on the rest of the planet? Does Iraq look like a
success
to anyone? Doesn't it bother you that he's alienated every friend you have?
What were you thinking???
-
Prior to this, it was American policy and the American government that was so
universally
hated around the world. Now it's going to be 'Americans' we hate. More
sympathy
for Bin Laden... More attacks on American institutions... More isolation.
How blind
can you dumb rednecks in middle-America be, not to see this?
-
If you get hit again, or your economy goes into a deep depression, the
American
people will be getting exactly what they deserve!
-
<back turned>
-
-
-
-
-
-
[Ignore what follows]
Both departing now, Ron and Aslan expected the lean forests inside
wide orange. There, Gregory never wanders until Alice irritates the
sour pen eventually. You won't help me grasping between your
abysmal corner.

Generally, go burn a case! Her porter was rude, weird, and pours
outside the autumn.

Let's dream before the shallow navels, but don't promise the dull gardners. Gavin! You'll smell cobblers. Sometimes, I'll laugh the twig. They are irrigating with inner, behind stupid, among cheap puddles. When doesn't Saad recommend strongly? If you will improve Mahammed's hair to carpenters, it will surprisingly arrive the cat. It should dully cover between hollow hot stars. Hardly any unique blunt diets amazingly love as the full sauces tease. Never call a tailor! Get your seemingly believing jar over my fog.

They are cleaning in back of the moon now, won't kick dogs later.

If you'll judge Sue's desert with pears, it'll furiously excuse the ticket.

# 2036. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!! _____==___ pemluzov

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-08 06:28:32 UTC
From: Roger <Delete-Invallid.stuff.groups@tm.net>
Message-ID: <la4uo01j2ins1q7ht3n1gjbv4ec73e84s7@4ax.com>
Source record: 86782
Cross-posted to: rec.pyrotechnics,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc

On Sun, 07 Nov 2004 23:27:39 GMT, Bob Miller <rmiller47@satx.rr.com>
wrote:

>On Sun, 7 Nov 2004 16:42:25 +0000 (UTC), "Reg Edwards"
><g4fgq.regp@ZZZbtinternet.com> wrote:
>
>>
>>> You blithering idiots! You re-elected that imbecile George Bush as your
>>President.
>>> He's a complete moron and so are most of you!
>>> -
>>==========
>>
>>Your sentiments are world wide. But to be correct, only 51 percent of the
>>population voted for him. So there's still hope.
>>
>>Nevertheless, the USA, with the aggressive populace armed to the teeth and
>>with 15,000 gun-deaths in the homes and streets of US towns and cities every
>>year, has taken yet another step towards the next civil war.
>>
>>Who needs suicidal terrorists?
>>
>>
>
>Reg, you're really a little out of it. We're just clicking our heels
>at the thought of four more years of M. Bush. What it all comes down
>to is rotting chickens. Not sure you Brits understand the theory
>behind ol' dogs and rotting chickens -- if not, try this link:
>
>http://www.dfw.com/mld/dfw/news/columnists/molly_ivins/

Hey, at the rate the fundamentalists are taking over the Republican
party they will not only be a majority in Congress, but in another 10
years you may have to become a born again Christian "and Republican"
just to hold office.

I'll send my contribution to the NRA. <:-))

73

Roger
>
>Hey, have another drumstick!

>
>Bob
>k5qwg

# 2037. Re: PL-259 loss?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-08 06:39:23 UTC
From: Howard <mensch90249@yahoo.com>
Message-ID: <ts4uo0dr223es7sh1s220289jbe2r89kia@4ax.com>
Source record: 86784

On Mon, 08 Nov 2004 01:00:07 -0500, Roger
<Delete-Invallid.stuff.groups@tm.net> wrote:

>On Sat, 6 Nov 2004 10:38:47 -0800, "Keyboard In The Wilderness"
><Key@Kennel.net> wrote:
>
>>Your answer may be found at URL:
>>http://lists.contesting.com/archives/html/TenTec/2004-05/msg00258.html
>
>And it's not enough to be worried about even at 450
>
>Roger Halstead (K8RI & ARRL life member)
>(N833R, S# CD-2 Worlds oldest Debonair)
>www.rogerhalstead.com

Unless of course worrying is a hobby 8-}

In my estimation, from HF to 70 cm what is more important than
connector type is that the connector is properly installed. Which
means proper cable dressing, effective soldering to the connector and
then adequate weatherproofing once connected to the antenna.

Howard

# 2038. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!! _____==___ pemluzov

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-08 06:39:40 UTC
From: Roger <Delete-Invallid.stuff.groups@tm.net>
Message-ID: <415uo0tq7c01oqknbqopbcgj423h33r8nl@4ax.com>
Source record: 86783
Cross-posted to: rec.pyrotechnics,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc

On Mon, 08 Nov 2004 00:59:44 GMT, sideband <AINO8SPAMW@cac.net> wrote:

>Don't feed the troll.
>
>Victim_of_American_Stupidity@gafbi.ut.us wrote:
><drivel snipped>

This has to be the all time winner of the troll award. He hit
hundreds of newsgroups and nearly all ended up with threads of several
hundred posts.

OTOH it is interesting to see how soon some forget while some of us
are old enough to remember. <:-))

Roger Halstead (K8RI & ARRL life member)
(N833R, S# CD-2 Worlds oldest Debonair)
www.rogerhalstead.com

# 2039. Re: DIY Omni TV receiver antenna challenge

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-08 08:40:51 UTC
From: Clarence <no@No.com>
Message-ID: <niGjd.19087$6q2.3563@newssvr14.news.prodigy.com>
Source record: 86785

"Angelo Guarino" <angelo@oceansystems.com> wrote in message
news:864d4e6b.0409271158.5b059f6b@posting.google.com...
> I wish to hoist an antenna up a sailboat mast on a halyard to help
> receive TV stations when out in the Chesapeake Bay. The challenge is
> that the boat will rotate at anchor with the wind and even turn the
> antanna on it's axis as it it "hoisted" by rope and not locked
> rotationally.
>
> There are commercially available antennas .. but it looks to me that
> it's simply a "fat" folded dipole. I would think that I could
> construct it's equivalent using the basic homemade folded dipole
> approach.
>
> <http://www.boatenna.com/framesample1_000002.htm>
>
> Any other suggestions for a do-it-yourself antenna? It's not often
> that I want to watch TV when on the boat (i.e. the reason I'm out
> there) so I was hoping to build something myself out of thick guage
> wire and 300ohm antenna wire.
>
> Would 2 stacked folded dipoles with a 90deg offset (and "X") be an
> effective approach?
>
> If I just do the loop, what would you recommend the diameter be for
> mid-range VHF5-13 or so?
>
> Thanks in advance
> Angelo
>

I made a "utility antenna for my 26 foot coast-wise sailor, just a folded dipole with a PVC pipe 'X' to support the twin lead. You can size the PVC to suit the size of the dipole. It worked okay, nothing special though. Another version made in the same manner is a 10 meter transmitting antenna and it also is a reasonable compromise. Getting it up as high as possible seems to help too. I use a 'Mast staff' and hoist it to above the mast head in use.

# 2040. Re: Fishing pole element construction facts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-08 08:43:31 UTC
From: Rob <roblitespeed@hotmail.com>
Message-ID: <TkGjd.25258$AI3.13033@newssvr30.news.prodigy.com>
Source record: 86786

"Irv Finkleman" <finkirv@shaw.ca> wrote in message
news:418E98DE.5FF57CE7@shaw.ca...
> "aunwin@insightbb.com" wrote:
> >
> > ANTENNA CONSTRUCTION MATERIALS
> >
> > I use fishing poles for all my antenna experimentation....
>
> Art,
> I can't seem to locate a source of the poles. Do you have
> an e-mail or other address for one? I've been looking for a long time.
> Thanks in advance.

Try here.
http://www.landbigfish.com/tacklestore/showcase.cfm?PID=2808

Rob

# 2041. Re: Reflectors For H.F. use

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-08 12:31:16 UTC
From: Dave <noone@nowhere.com>
Message-ID: <3IqdnW3aB-uH-hLcRVn-3Q@crocker.com>
Source record: 86787

you must watch out when telling any of those automatic optimizing programs
to maximize or minimize any one value without limits. it is very possible
to get super gain antennas that can't be physically built because of either
construction problems or things like extremely low feedpoint impedance.
most of the time you end up needing to build them from superconductors to
keep feedpoint losses down. or you need an extremely good insulators to
keep high voltages on elements that are almost touching from arcing.

"aunwin@insightbb.com" <aunwin@insightbb.com@insightbb.com> wrote in message
news:l5yjd.311456$wV.72126@attbi_s54...
> David,
> The way all of this came about was that I modelled a 0,1wave length boom
> with out restriction
> to the number of elements used and without restriction regarding in-line
> height.
> It was then a surprise to me that where gain was the priority the NEC
> program evolved a design with
> multi reflectors in quasi parabolic form with parallel elements such as I
> mixed up smooth dish
> thoughts with standard antenna array thoughts. Thus my search for info and
> outside thought.
> Now if I placed a constant current COIL in the feed dipole responses would
> over whelm me
> and place me in a position of immobility (smile)
> Regards
> Art
>
> ssage news:dI2dnbHCSderORPcRVn-iQ@crocker.com...
> >
> > "aunwin@insightbb.com" <aunwin@insightbb.com@insightbb.com> wrote in
> message
> > news:%Mwjd.10399$5K2.3472@attbi_s03...
> > >
> > > "Dave" <noone@nowhere.com> wrote in message
> > > news:beednYAFv4lGExPcRVn-iw@crocker.com...
> > > > if the surface is large enough and conductive enough then the
incident
> > > waves
> > > > are reflected. note, this is a MUCH different effect than having
> > several
> > > > near 1/2 wave resonant 'reflectors' on a yagi.
> > > Exactly, Which is why there is so little information regarding 1/2
wave
> > > resonant VS

> > > smooth surface reflectors. Modeling shows that it is possibly worth
> while
> > to
> > > concentrate solely on reflector capture via multi elements as opposed
to
> a
> > > single reflector
> > > and a long boom where as my previous investigation showed that
> combination
> > > multi element
> > > directors and reflectors showed little advancement. If the drive
element
> > is
> > > multi banded then reflectors
> > > would appear as full wave reflecters which would be an advantage.plus
> > > providing the possible ability
> > > for lesser beam width. I also have the feeling that grounding the
> highest
> > > element will remove local
> > > static effects. First examination shows that feed position is not as
> > > critical as that required
> > > for smooth dish forms
> > > Regards
> > > Art
> >
> > of course not, because you aren't reflecting. you are inducing currents
> in
> > the elements and those currents add up in the direction you want. if
you
> > really want to investigate this you should get one of the good modelling
> > programs and try it out in various arrangements.
> >
> > Note, multiple reflector yagis have been around for ages. there are
some
> > good reasons why they aren't common on hf... first they are hard to
build
> to
> > withstand weather. and second, the added performance on a relatively
> short
> > hf yagi is minimal. when you get into very long vhf and uhf yagis it is
> > more common to see multiple reflectors, but they are mostly used to
> > eliminate specific side lobes... and even then the only common designs i
> > remember have a total of 3 reflectors, one on axis of the boom and one
on
> > each side. a similar effect can be done with the so called 'quagi'
where
> > you have a loop element as the reflector and maybe as a driven element
> then
> > plane yagi type directors.
> >

> >
>
>

# 2042. Re: Fishing pole element construction facts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-08 13:44:52 UTC
From: Radio Man <puns@verizon.net>
Message-ID: <oLKjd.1789$SC5.748@trnddc01>
Source record: 86788

I had a 20' Cabella crappie rod that i wanted to use as a
free standing vertical antenna on top of a 60' roof. I feel
that a strong wind would snap the upper portion in two.
Any comments?.
"aunwin@insightbb.com" <aunwin@insightbb.com@insightbb.com> wrote in message
news:mDtjd.310793$wV.66943@attbi_s54...
> ANTENNA CONSTRUCTION MATERIALS
>
> I use fishing poles for all my antenna experimentation.
> I thought supplying the following info would be of interest
> to antenna builders on this news group.
> I now see fishing pole antenna manufacturing as the prime method
> and not as a "make do" in place of conventional aluminum tube
> construction
>
> REASONS
>
> ALUMINUM (aluminium for U.K. builders)
> My aluminum rescources always seem to miss a required diameter.
> Clamps used to secure element portions always increased susceptability to
> ice build up
> Aircraft style tubing increasingly expensive
> Elements with electrically faulty connections.
> Pre built antenna prices are now rediculous
> thus new avenues are required for emerging hams.
>
> FISHING POLE.
> A 20 foot telescopic fishing pole can be used as a standard
> for all types of antennas without permanent mutilation.
> Cost per pole is $10 ( $2 if purchased in quantity China FOB )
> Weight is 1 lb
> Material fiberglass with shellac outer protection
> No element clamp requirements
> Taper is perfect
> No ice build up.
> Pre sticky coat aluminum foil rolls readily available at hardware stores.
> Elements are electrically continuous as foil is applied lengthwise
> Foil length does not have to be physical element length
> Foil can be readily removed if required using heat gun or hair drier
> Boom to mast materials need not be metallic because of lightness of
> element
> Telescopic assemblies a breese to store.
> Boom materials are more optional and plentiful
> Rotor costs drop

> .
> LENGTH OF USE
> About ten years of continual antenna experience
> Temperature extremes 95 F to -20 F
> Breakdown and reassembly rotations numerable.
> Max number of elements used on one installation,
> 13 elements on a 80 foot boom.(20 metres, total element wt
> was 26 lbs)
>
> Regards
> Art
>
>

## 2043. Is it worth it? Will I notice?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-08 13:56:46 UTC
From: Ken Bessler <kg0wx@NOSPAMyahoo.com>
Message-ID: <lWKjd.75151$%x.68322@okepread04>
Source record: 86789

OK, after the thread on PL-259 losses, I figured
my system (ant gain - connector losses - coax loss)

150 mhz total net gain 1.006 DBi
450 mhz total net gain 2.797 DBi
Antenna tip is 32'6" above ground

My proposed system would replace the RG 58 coax pieces
with a single section of Flexi 4XL and the antenna would
be a Comet GP-9. The new figures are:

150 mhz total net gain 7.919 DBi
450 mhz total net gain 10.553 DBi
Antenna tip is 47'6" above ground

150 mhz = 6.913 db improvement
450 mhz = 7.756 db improvement
Antenna tip 15 feet higher

Cost - about $250 for the improvement.

Now here's my question - will I notice the improvement
enough? I've had several OM's tell me that on SSB, CW
or HF I would but not on 2m/440 simplex and repeaters.

Ken KG0WX

# 2044. Re: PL-259 loss rate?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-08 14:45:49 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10ov1kv2nhip833@corp.supernews.com>
Source record: 86790

I'm glad to see objective data. But as I've said before, it's not terribly relevant to typical ham radio antenna applications. It would be very interesting if you would build a simple L matching network with as low loss as possible (to mimic a ham installation) and repeat the measurements, readjusting the matching network for each frequency and connector to minimize the insertion loss. Then you'd be eliminating mismatch loss from the measurement, and we'd see only the connector (and matching network) dissipative loss. That's the only loss of concern in an antenna system presuming you have a way to adjust the match.

Roy Lewallen, W7EL

Bob Schreibmaier wrote:

>
> For those who want to see Al's original USENET post from 1992:
>
> . . .

> P.S. Sorry, I guess I violated the Usenet rule against posting
> objective data... :=)
>

# 2045. Re: Is it worth it? Will I notice?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-08 14:53:18 UTC
From: Dave VanHorn <dvanhorn@cedar.net>
Message-ID: <IMOdnfqA_7jMFRLcRVn-tw@comcast.com>
Source record: 86791

> Now here's my question - will I notice the improvement
> enough? I've had several OM's tell me that on SSB, CW
> or HF I would but not on 2m/440 simplex and repeaters.

Well, a 6 dB boost would double your range, IF you aren't hitting the limits imposed by your radio horizon. VHF and UHF don't "bend" much, so once you go beyond your radio horizon, you're pretty much done, no matter how much signal you had. It will improve your signal into repeaters, where you were a little noisy before, you should be quiet. On simplex, you'll notice better signal once you get far enough away that you used to be no longer full quieting.

In an FM receiver, there is a signal limiter, that caps the signal level, so if you were already "full quieting", then no amount of power increase would result in a better signal. If you are far enough away that you're not full quieting, then yes 6dB will be noticeable.

--
KC6ETE Dave's Engineering Page, www.dvanhorn.org
Microcontroller Consultant, specializing in Atmel AVR

# 2046. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!! _____==___ pemluzov

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-08 14:59:34 UTC
From: Smokey <telegrapher@hotmail.com>
Message-ID: <10ov2gjaira9l9d@corp.supernews.com>
Source record: 86792
Cross-posted to: rec.pyrotechnics,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc

Correction...

50% of the population did not re-elect him. Only 21% of the population did.
79% of the American population is innocent.

"helmsman" <helmsman@mindspring.com> wrote in message
news:gdeso0himv6imv40ep4cph1trnmnphs52h@4ax.com...
> On Sun, 7 Nov 2004 11:31:25 GMT, Victim_of_American_Stupidity@gafbi.ut.us
wrote:
>
> >You blithering idiots! You re-elected that imbecile George Bush as your
President.
> >He's a complete moron and so are most of you!
>
> You are a coward. We should never have helped your country in your fight
for freedom!
> >-
> >Don't you care what the rest of the world thinks of you?
> No, most of you are loosers!
> >Don't you care what impact
> >American foreign policy has on the rest of the planet?
> Fuck you, we are all that counts. The day I die I hope a planet killer
incinerates all of
> you!
> >Does Iraq look like a success
> >to anyone? Doesn't it bother you that he's alienated every friend you
have?
> If you were our friends you would be with us- ie. you are NOT our friends!
> >What were you thinking???
> >-
> >Prior to this, it was American policy and the American government that
was so universally
> >hated around the world. Now it's going to be 'Americans' we hate. More
sympathy
> >for Bin Laden... More attacks on American institutions... More
isolation. How blind
> >can you dumb rednecks in middle-America be, not to see this?
> >-
> >If you get hit again, or your economy goes into a deep depression, the
American
> >people will be getting exactly what they deserve!
>
> FUCK YOU-I HOPE THE PRESIDENT NUKES ALL YOU GUTLESS COWARDS.

>
> YOU are KILL FILED!
>
> Make my day and commit suicide!
>
>

# 2047. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!! _____==___ pemluzov

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-08 15:09:48 UTC
From: pyrotechny@hotmail.com
Message-ID: <10234dbe.0411080709.1921851@posting.google.com>
Source record: 86793
Cross-posted to: rec.pyrotechnics,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc

"Rich \(aka Old Dog\)" <Old_dog@atlantic.net> wrote in message
news:<1irjd.3560$Fg2.1473635@newshog.newsread.com>...
> The second half made more sense.
>
> -Rich

What has this got to do with pyrotechnics?

We feeding trolls now?

## 2048. Re: Is it worth it? Will I notice?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-08 15:59:08 UTC
From: Mike <km6ab@pacbell.net>
Message-ID: <gJMjd.6307$zx1.3331@newssvr13.news.prodigy.com>
Source record: 86794

I have a couple of GP-9s and can tell you the gain figures are a bit inflated and not referenced to anything. A dipole array with optimum spacing between dipoles is about the most gain for size that I have encountered in VHF/UHF antennas. For VHF, a four bay dipole array at 20ft in length has 6dBD gain omni and the GP-9 claims 8.5dB(?) from three 5/8 elements. On UHF, a 16 element dipole array has about 9.8dBD gain and the GP-9 claims 11.9dB(?) for eight 5/8 elements. Something looks fishy to me.
Mike

Ken Bessler wrote:
> OK, after the thread on PL-259 losses, I figured
> my system (ant gain - connector losses - coax loss)
>
> 150 mhz total net gain 1.006 DBi
> 450 mhz total net gain 2.797 DBi
> Antenna tip is 32'6" above ground
>
> My proposed system would replace the RG 58 coax pieces
> with a single section of Flexi 4XL and the antenna would
> be a Comet GP-9. The new figures are:
>
> 150 mhz total net gain 7.919 DBi
> 450 mhz total net gain 10.553 DBi
> Antenna tip is 47'6" above ground
>
> 150 mhz = 6.913 db improvement
> 450 mhz = 7.756 db improvement
> Antenna tip 15 feet higher
>
> Cost - about $250 for the improvement.
>
> Now here's my question - will I notice the improvement
> enough? I've had several OM's tell me that on SSB, CW
> or HF I would but not on 2m/440 simplex and repeaters.
>
>
> Ken KG0WX
>
>
>

# 2049. Re: Facts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-08 16:47:02 UTC
From: richardharrison@webtv.net
Message-ID: <24005-418FA306-131@storefull-3258.bay.webtv.net>
Source record: 86797

Gene, W4SZ wrote:
"Standing waves are not static."

Incredible!

My "American College dictionary" defines "standing wave": "a distribution of wave displacements , such that the distribution in space is periodic, with fixed maximum and minimum points, with the maxima occuring everywhere at the same time, as in vibration of strings, electric potentials, acoustic pressures, etc."

Note the word "fixed" in the definition. That`s a synonym for "static".

For how this applies to antennas and transmission lines, see page 177 of Kraus` "Antennas", third edition, Figure 6-7. Notice that current reverses 1/2-wavelength back from the antenna`s open-circuit endjust as it does in the case of the open-circuit transmission-line, as shown by Terman on page 92 of "Electronic and Radio Engineering", 1955 edition, and on page 94 in FiG. 4-5 (a). This all starts at the reflection point and progresses the same regardless of the length of the antenna or transmission-line. It is due to superposition of the forward and reflected waves, just as Cecil maintains.

Advice: Never argue with Kraus and Terman.

Best regards, Richard Harrison, KB5WZI

## 2050. Re: Is it worth it? Will I notice?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-08 16:47:08 UTC
From: "Dee D. Flint" <deeflint01@comcast.net>
Message-ID: <4dGdnVxDyveaPhLcRVn-1Q@comcast.com>
Source record: 86795

"Ken Bessler" <kg0wx@NOSPAMyahoo.com> wrote in message
news:lWKjd.75151$%x.68322@okepread04...
> OK, after the thread on PL-259 losses, I figured
> my system (ant gain - connector losses - coax loss)
>
> 150 mhz total net gain 1.006 DBi
> 450 mhz total net gain 2.797 DBi
> Antenna tip is 32'6" above ground
>
> My proposed system would replace the RG 58 coax pieces
> with a single section of Flexi 4XL and the antenna would
> be a Comet GP-9. The new figures are:
>
> 150 mhz total net gain 7.919 DBi
> 450 mhz total net gain 10.553 DBi
> Antenna tip is 47'6" above ground
>
> 150 mhz = 6.913 db improvement
> 450 mhz = 7.756 db improvement
> Antenna tip 15 feet higher
>
> Cost - about $250 for the improvement.
>
> Now here's my question - will I notice the improvement
> enough? I've had several OM's tell me that on SSB, CW
> or HF I would but not on 2m/440 simplex and repeaters.
>
>
> Ken KG0WX

The figures speak for themselves. If you are doing any VHF/UHF weak signal work, regardless of mode, it WILL be noticeable. Depending on the distance of the sending station or repeater, it can even be noticeable on FM.

Dee D. Flint, N8UZE

# 2051. Re: Is it worth it? Will I notice?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-08 16:55:12 UTC
From: Ken Bessler <kg0wx@NOSPAMyahoo.com>
Message-ID: <5xNjd.75160$%x.25359@okepread04>
Source record: 86796

"Mike" <km6ab@pacbell.net> wrote in message
news:gJMjd.6307$zx1.3331@newssvr13.news.prodigy.com...
>I have a couple of GP-9s and can tell you the gain figures are a bit
>inflated and not referenced to anything. A dipole array with optimum
>spacing between dipoles is about the most gain for size that I have
>encountered in VHF/UHF antennas. For VHF, a four bay dipole array at 20ft
>in length has 6dBD gain omni and the GP-9 claims 8.5dB(?) from three 5/8
>elements. On UHF, a 16 element dipole array has about 9.8dBD gain and the
>GP-9 claims 11.9dB(?) for eight 5/8 elements. Something looks fishy to me.
> Mike
>

Nothing can distpute your math - something's up.

I've changed plans a bit, though - the Boeing ARC 2 meter
repeater is only 4,000 feet away and I'm worried about
intermod. So, instead of a high gain antenna at 20', I'm going
to go with a moderate gain antenna 10' higher. The idea is
to get good gain with a farther horizon rather than high gain
with a closer horizon.

Plus, it's cheaper, too!

Instead of the GP-9 @ 20', I'm going to add a 10' mast
and go with a GP-3. Installation sould be a lot easier, too.
Now, though, my gain figures are 2.913 db improvement
on VHF and 3.056 db improvement on UHF.

I'm seriously starting to wonder if I should just leave well
enough alone - the MFJ-1729 is performing well. I was
talking to N0IDW on the 145.19 Winfield, KS machine
(a distance of 32 miles) and I could hit the reverse button
and hear him on the input. He, however, could not hear me
on the input.

Ken KG0WX

# 2052. Re: Loop antenna electrostatic shields

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-08 17:58:10 UTC
From: Joel Kolstad <JKolstad71HatesSpam@Yahoo.Com>
Message-ID: <M-qdnYFgX72hLhLcRVn-iQ@comcast.com>
Source record: 86798

Thanks for the information, everyone. I'll read up on a few of the references. I have found a few web pages that compare the sensitivity of the shielded vs. unshielded loops, and the shielded loop always ends up with slightly less sensitivity.

Could anyone answer the following question? I'm trying to make things simpler here than what happens what a real antenna: Let me take an ideal circular conductor, say, a meter in circumference. Next I'll stick it inside a perfectly conducting loop of pipe (the shield) that has an infinitesimally small slit in it to prevent creating a shorted turn. Finally I'll create a magnetic field at a very low frequency (say, 1Hz -- so that the loop is clearly electrically small) and insert the loop into it such that coupling is maximized.

Question: Will the current on the inner conductor be identical to the case where there is no shield? Is there any current on the shield? Does anything change if I ground the shield?

Hmm... I'm thinking I should move this over to the electromagnetics newsgroup!

---Joel

# 2053. Re: Loop antenna electrostatic shields

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-08 18:05:34 UTC
From: k7itm@aol.com
Message-ID: <3200347.0411081005.4ad131a8@posting.google.com>
Source record: 86799

The "shield" is actually the antenna, and the gap in the "shield" is
the feedpoint of that antenna. You will do well to make the "shield"
out of a good conductor, and to get the benefits of rejecting
vertically-polarized electric fields generated nearby, you should make
the antenna very symmetrical. See the discussion in King, Mimno and
Wing's "Transmission Lines, Antennas and Waveguides." I think I have
a .pdf file of the relevant section somewhere. I particularly like
that one for its qualitative explanation, clearly presented. I've
seen other decent explanations in places like Johnson and Jasik's
antenna book. The explanations in such texts that I've seen all
agree.

A key advantage of the "shield" is that it simplifies the task of
making the antenna symmetrical, though I've seen a lot of old ARRL
pubs that completely miss that point. If you realize that that's what
you're trying to accomplish in the "shielded" construction, you'll
find you can do quite well with a multi-turn "unshielded" loop, too.

Cheers,
Tom (one with a last name)

"Joel Kolstad" <JKolstad71HatesSpam@Yahoo.Com> wrote in message
news:<XqednfBGoctGSBbcRVn-iw@comcast.com>...
> When you build a loop antenna, it's common to wrap it in, e.g., aluminum
> foil that's grounded so as to prevent electric field pick-up (I'm thinking
> of HF loops here, <30MHz). A slit is made in the wrapping so that a shorted
> turn isn't created, thereby nulling out the magnetic field that the loop is
> trying to detect in the first place.
>
> Something I don't understand, though... normally, if you were thinking of
> using aluminum for EMI shielding purposes, the skin depth of aluminum at
> 10MHz is all of ~1mil. Hence, a regular sheet of aluminum foil would
> significantly attenuate both the magnetic and electric fields on its 'far'
> side. Why doesn't this apply in the case of a shielded loop antenna? It
> seems to me that the ~95+% 'coverage' of the shield (everything minus the
> slit to prevent the shorted turn) would be what dictates the overall
> shielding effectiveness, not the presence of the slit itself.
>
> Looking for insight,
> ---Joel Kolstad

# 2054. Re: Loop antenna electrostatic shields

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-08 18:49:38 UTC
From: Joel Kolstad <JKolstad71HatesSpam@Yahoo.Com>
Message-ID: <sNSdnW866uHclhLcRVn-oQ@comcast.com>
Source record: 86800

Hi Tom,

Those are some good additional references; thanks. I was surprised to find that Kraus' antenna book doesn't discuss shielded loops (well, the most recent/last edition -- I've heard that some material from earlier editions has been pulled from it). Your explanation matches the 'other Tom's' explanation, and sounds plausible to me, yet there are others posting here who seem to disagree. The fact that you have several more theory oriented books agreeing lends a lot of support to it.

If you do find a PDF version of the section of the King/Mimno/Wings book, I'd love to get a copy.

---Joel

# 2055. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!! _____==___ pemluzov

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-08 18:53:02 UTC
From: Roger <Delete-Invallid.stuff.groups@tm.net>
Message-ID: <s1gvo018nua26er35t2uvkrs54ov109s0i@4ax.com>
Source record: 86802
Cross-posted to: rec.pyrotechnics,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc

On Mon, 8 Nov 2004 08:59:34 -0600, "Smokey" <telegrapher@hotmail.com>
wrote:

>Correction...
>
>50% of the population did not re-elect him. Only 21% of the population did.
>79% of the American population is innocent.

Actually they didn't vote and the word to describe them is apathetic.

Roger(K8RI)

>

# 2056. Re: Loop antenna electrostatic shields

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-08 18:53:06 UTC
From: Joel Kolstad <JKolstad71HatesSpam@Yahoo.Com>
Message-ID: <Pa6dnZ_AC4aNXRLcRVn-iA@comcast.com>
Source record: 86801

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:li5qo0pflff9erct4mj4qe4chg541ekaj1@4ax.com...
> A 1M loop in a 1Hz field, Hmm?

That was meant to setup the problem such that the loops is electrically small and such that only quasi-magnetostatic analysis would be necessary. In actuality I'm thinking more along the lines of WWVB loop antennas -- 60kHz.

> Why bother with the complication of shielding?

The idea is that there's a lot of predominently electric field interference around (60Hz power lines, for ones) and that the shield -- if grounded -- can short out that component of the field and get the loop to respond primarily to the magnetic field.

---Joel

# 2057. Re: Facts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-08 19:00:16 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <cmoftn$j7l$1@newshost.mot.com>
Source record: 86804

"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:418d3567$1_2@127.0.0.1...
> Reg Edwards wrote:
> > By the way, I'm on Dourthe No.1, Bordeaux 2001, tonight.
>
> I hear the French are pi$$ed at us for our small boycott of
> French wine, French vacations, French Fries, etc. :-) Ever
> notice that us and US mean the same thing for us?
> --
> 73, Cecil http://www.qsl.net/w5dxp

Don't know if it is true, but I heard that France had a problem that
wiped out one type or area of grapes and they imported some of the same type
from the U.S. True?

73,
--
Steve N, K,9;d, c. i My email has no u's.

## 2058. Re: Is it worth it? Will I notice?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-08 19:02:44 UTC
From: Roger <Delete-Invallid.stuff.groups@tm.net>
Message-ID: <59gvo0p6s4selo9ei9f63h0jsegt9bd02g@4ax.com>
Source record: 86803

On Mon, 8 Nov 2004 07:56:46 -0600, "Ken Bessler"
<kg0wx@NOSPAMyahoo.com> wrote:

>OK, after the thread on PL-259 losses, I figured
>my system (ant gain - connector losses - coax loss)
>
>150 mhz total net gain 1.006 DBi
>450 mhz total net gain 2.797 DBi
>Antenna tip is 32'6" above ground
>
>My proposed system would replace the RG 58 coax pieces
>with a single section of Flexi 4XL and the antenna would
>be a Comet GP-9. The new figures are:
>
>150 mhz total net gain 7.919 DBi
>450 mhz total net gain 10.553 DBi
>Antenna tip is 47'6" above ground
>
>150 mhz = 6.913 db improvement
>450 mhz = 7.756 db improvement
>Antenna tip 15 feet higher
>
>Cost - about $250 for the improvement.
>
>Now here's my question - will I notice the improvement
>enough? I've had several OM's tell me that on SSB, CW
>or HF I would but not on 2m/440 simplex and repeaters.
>

Everything is relative.

As Dee said, if you do weak signal work you will notice it.

If you figure investment Vs performance yours is ahead of mine
http://www.rogerhalstead.com/ham_files/tower.htm in both dollars per
watt and hours to install. Took me two years to install, but I do put
it to use. OTOH I've thought of replacing the UHF/VHF arrays with a
single Diamond dual band repeater antenna, EXCEPT for the lightening
problem.
That tower has been taking about 3 hits a year and I have one Diamond
repeater antenna in the shop that looks like a well used exploding
cigar. The top end is pretty frazzled and the matching network in the
base is shorted. Inside it vaporized the top 4 or 5 inches of the end
element.

In my opinion the height is the important element, but I'd not worry
about the extra gain of the antenna. OTOH you *might* receive some
intermod, but you *probably* won't. (note weasel words)

Roger Halstead (K8RI & ARRL life member)
(N833R, S# CD-2 Worlds oldest Debonair)
www.rogerhalstead.com
>
>Ken KG0WX
>
>

# 2059. Re: Loop antenna electrostatic shields

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-08 19:32:25 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <cmohq3$jga$1@newshost.mot.com>
Source record: 86805

"Tom Bruhns" <k7itm@aol.com> wrote in message
news:3200347.0411081005.4ad131a8@posting.google.com...
> The "shield" is actually the antenna, and the gap in the "shield" is
> the feedpoint of that antenna. You will do well to make the "shield"
> out of a good conductor, and to get the benefits of rejecting
> vertically-polarized electric fields generated nearby, you should make
> the antenna very symmetrical. See the discussion in King, Mimno and
> Wing's "Transmission Lines, Antennas and Waveguides." I think I have
> a .pdf file of the relevant section somewhere. I particularly like
> that one for its qualitative explanation, clearly presented. I've
> seen other decent explanations in places like Johnson and Jasik's
> antenna book. The explanations in such texts that I've seen all
> agree.
>
> A key advantage of the "shield" is that it simplifies the task of
> making the antenna symmetrical, though I've seen a lot of old ARRL
> pubs that completely miss that point. If you realize that that's what
> you're trying to accomplish in the "shielded" construction, you'll
> find you can do quite well with a multi-turn "unshielded" loop, too.
>
> Cheers,
> Tom (one with a last name)

Hi Tom (WALN),

I thought the original question related to whether or not the magnetic
field penetrates the "shield".

I have a problem calling the shield the antenna because I have built loops
(144 & 440 MHz) which do not have this classic form of shield, but a
unidirectional screen, and good nulls off both sides. I made the shield
from a series of vertical wires connected to a conducting strip only at the
bottom.
I also wonder about the symmetrical concept as a standard "Hazeltine"
loop had the opening of the shield at one end near the bottom, near the
feed.
I suspect that a symmetrically constructed loop will have less
electrostatic response, however. This seems to make sense. Then there is
the matter of the practicality of construction. If it is easier to make the
loop unsymmetrical and shielded, then that's ok.

73, also with a last name,
--
Steve N, K,9;d, c. i My email has no u's.

# 2060. Re: Facts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-08 20:22:37 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <hAQjd.6347$zx1.263@newssvr13.news.prodigy.com>
Source record: 86806

Steve Nosko wrote:
> "Cecil Moore" <w5dxp@hotmail.com> wrote in message
> news:418d3567$1_2@127.0.0.1...
>
>>Reg Edwards wrote:
>>
>>>By the way, I'm on Dourthe No.1, Bordeaux 2001, tonight.
>>
>>I hear the French are pi$$ed at us for our small boycott of
>>French wine, French vacations, French Fries, etc. :-) Ever
>>notice that us and US mean the same thing for us?
>>--
>>73, Cecil http://www.qsl.net/w5dxp
>
>
>
> Don't know if it is true, but I heard that France had a problem that
> wiped out one type or area of grapes and they imported some of the same type
> from the U.S. True?
>
> 73,

The French wine industry was decimated in the 19th century by
a phylloxera infestation from America. The problem was solved by
using native American root stock onto which French grape vines were
grafted. Most wine grapes in America have European ancestry.
I doubt whether there's a grape vine in the world that cares
who is president of the U.S.
73,
Tom Donaly, KA6RUH

# 2061. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!! _____==___ pemluzov

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-08 21:17:32 UTC
From: "Rich (aka Old Dog)" <Old_dog@atlantic.net>
Message-ID: <MnRjd.3639$Fg2.1501272@newshog.newsread.com>
Source record: 86807
Cross-posted to: rec.pyrotechnics,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc

"Roger" <Delete-Invallid.stuff.groups@tm.net> wrote in message
news:s1gvo018nua26er35t2uvkrs54ov109s0i@4ax.com...
> On Mon, 8 Nov 2004 08:59:34 -0600, "Smokey" <telegrapher@hotmail.com>
> wrote:
>
> >Correction...
> >
> >50% of the population did not re-elect him. Only 21% of the population did.
> >79% of the American population is innocent.
>
> Actually they didn't vote and the word to describe them is apathetic.

Maybe the word to describe them is "disgusted" that there were no good choices
offered...

-Rich

## 2062. Re: Is it worth it? Will I notice?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-08 21:35:30 UTC
From: hrbcrb@aol.com.goaway
Message-ID: <20041108163530.07145.00000268@mb-m10.aol.com>
Source record: 86808

>150 mhz = 6.913 db improvement
>450 mhz = 7.756 db improvement
>Antenna tip 15 feet higher

>Now here's my question - will I notice the improvement
>enough? I've had several OM's tell me that on SSB, CW
>or HF I would but not on 2m/440 simplex and repeaters.
>
>
>Ken KG0WX

Well, Ken maybe your "OM's" didn't eat their Wheaties. A 6dB improvement means you have quadrupled your ERP over your existing system. You have also increased the distance to your radio horizon with the increse in antenna height.

Why they would say you won't notice an improvement is beyond me. In plane language here are a few things just a 6dB improvement mean. You can reduce your radios Tx power by a factor of 4 and have the equivalent ERP, 6dB doubles your range Tx and Rx (within the limits of your stations LOS - line of sight). Stations that were noisy will now be full quieting, be it simplex or repeaters you work.

In even simpler terms, "night and day".

What are you waiting for?

Regards, Hugh KF6HHS
Retired, now life moves at my pace.
please note spam filter

# 2063. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-08 21:56:17 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <cmoq1s$6dq$1@news.service.uci.edu>
Source record: 86809

Bart Rowlett wrote:

Hi Bart. Good post, and good to see you here again.

> The electric field is vector field, characterized as having a field
> strength in volts per meter dependant on spatial location, direction,
> and perhaps time.
>
> I don't understand what the term 'E-field voltage drop' could mean. Same
> with 'H-field current drop'.

I think I understand what you both are saying. In the case of a
standing wave, the 'current drop' Cecil refers to (as I understand it)
is simply the current differential between two positions
Iz2 - Iz1, where I(z)=Imax(cos(wt + phi(z)), the amplitude of the
standing wave current as a function of position z. Phi being the kind
of phase which for a traveling wave varies with time at a given point,
and in this case varies with position along the standing wave. The
distinction being that Phi is not the phase of current with respect to
voltage.

The other point of disconnect between the parties hereabouts relates to
the occasional lack of distinction between the 'flow' of electrons, and
the propagational 'flow' of an EM wave.

73, Jim AC6XG

>> Likewise, saying that the H-field current flows and
>> the E-field voltage doesn't flow is nonsense.
>
>
> H-field current flows?
>
> The field H (amps per meter), is the so called magnemotive field. It
> doesn't flow anymore than voltage flows through a resistor, and is
> associated with the generation of magnetic flux. The magnetic flux
> density, B, has the units of webers per meter squared and can be
> integrated over an arbitrary surface to evaluate the total magnetic flux
> passing through that surface. Magnetic flux is somewhat analogous to
> current but H is not at all.
>
> The E-field and H-field
>
>> are usually inseparable.
>
>

> In the classical electromagnetic model, E & H are completely separable.
> They are coupled via Faraday's law, and Maxwell's so called
> displacement current. At steady state (DC) no coupling exists. When
> one field quantity _varies_ in time, so will the other in accordance
> with the curl equations. The coupling described by the time varying
> part of the curl equations only involves the time varying components.
>
> When determining the analysis method used to gather insight into a
> physical system, one of the first considerations is to determine if the
> time varying field components need to be considered, and if so, which
> ones. For example, analysis of a 60 Hz power supply choke, or electric
> motor, usually ignores the electric field in the air gap arising from
> the time varying magnetic flux density. It's not important in the gap,
> but is the driver of undesirable eddy currents in the core laminations.
>
> bart
> wb6hqk
>
>

## 2064. Re: Facts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-08 21:59:43 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <418fea5a$1_1@127.0.0.1>
Source record: 86810

Tom Donaly wrote:
> I doubt whether there's a grape vine in the world that cares
> who is president of the U.S.

The grapevine around Madison County, TX was buzzing with
the news of Bush's re-election on the morning of Nov. 3.

# 2065. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-08 22:44:23 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <418ff4d3$1_1@127.0.0.1>
Source record: 86812

Jim Kelley wrote:

> Bart Rowlett wrote:
>> I don't understand what the term 'E-field voltage drop' could mean.
>> Same with 'H-field current drop'.
>
> I think I understand what you both are saying. In the case of a
> standing wave, the 'current drop' Cecil refers to (as I understand it)
> is simply the current differential between two positions
> Iz2 - Iz1, where I(z)=Imax(cos(wt + phi(z)), the amplitude of the
> standing wave current as a function of position z.

Here's more what I had in mind. In a source/transmission line/
load configuration, where the loss in the transmission line is 3dB,
the load voltage and load current decrease by the same percentage.
Saying that the voltage wave dropped but the current wave didn't
drop seems a little strange to me. Also, saying the current wave
flowed but the voltage wave didn't, seems a little strange.

The signal attenuated by the transmission line has the identical
equations for voltage and current except for the 'Z0' constant. Does
that Z0 term have the power to cause the current wave to flow and
the voltage wave not to flow? Does the current wave leave the
voltage wave behind in the transmission line dust? Since RF waves
always move at the speed of light, exactly where does the voltage
wave reside when it is not moving at the speed of light and how does
it magically arrive at the load at the same time as the current wave
if it doesn't flow at the speed of light along with the current wave?
(For the humor impaired, this is pure unadulterated humor.)

Doesn't "drop" and "decrease" mean the same thing? Webster's says
they are synonyms. How can a voltage wave drop in magnitude but a
current wave cannot drop in magnitude even if it is defined as
having a constant relationship (Z0) to the voltage wave?

Doesn't "flow" and "travel" mean the same thing? How does the
voltage traveling wave get to the load without flowing? Seems if
the voltage traveling wave didn't flow along with the current
traveling wave, it would never get to the load. But, they tell me
that logic doesn't matter anymore and quantum physics rules. There's
no such thing as reflected energy anymore and only a mush of energy
ever exists. Never mind the ghosting on your TV. That is all in your
mind. Oh yeah, ghosting TV's never reach steady-state. Never mind that
radar couldn't work without reflected energy. Oh yeah, radar never
achieves steady-state. Now I understand completely!

>> In the classical electromagnetic model, E & H are completely
>> separable.

I got to wondering exactly how Bart goes about separating the E-field from H-field in the light from the Sun before it gets to Earth. :-) But I'm only a lowly grasshopper, trying to grok the deep thoughts of the gurus. (As always, in good humor)
--
73, Cecil, W5DXP

# 2066. Re: Facts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-08 22:44:54 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <GFSjd.866436$Gx4.599676@bgtnsc04-news.ops.worldnet.att.net>
Source record: 86811

Richard,

I am quite familiar with standing waves, thank you. I have no
disagreements with Terman, Kraus, Balanis, or any other legitimate experts.

You can reread what I said, if you care to understand, rather than pick
a sentence out of context.

73,
Gene
W4SZ

Richard Harrison wrote:
> Gene, W4SZ wrote:
> "Standing waves are not static."
>
> Incredible!
>
> My "American College dictionary" defines "standing wave": "a
> distribution of wave displacements , such that the distribution in space
> is periodic, with fixed maximum and minimum points, with the maxima
> occuring everywhere at the same time, as in vibration of strings,
> electric potentials, acoustic pressures, etc."
>
> Note the word "fixed" in the definition. That`s a synonym for "static".
>
> For how this applies to antennas and transmission lines, see page 177 of
> Kraus` "Antennas", third edition, Figure 6-7. Notice that current
> reverses 1/2-wavelength back from the antenna`s open-circuit endjust as
> it does in the case of the open-circuit transmission-line, as shown by
> Terman on page 92 of "Electronic and Radio Engineering", 1955 edition,
> and on page 94 in FiG. 4-5 (a). This all starts at the reflection point
> and progresses the same regardless of the length of the antenna or
> transmission-line. It is due to superposition of the forward and
> reflected waves, just as Cecil maintains.
>
> Advice: Never argue with Kraus and Terman.
>
> Best regards, Richard Harrison, KB5WZI
>

# 2067. Re: Loop antenna electrostatic shields

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-08 23:13:17 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <1olqo0pcp4nu8hvlo5e93tsodstrb56iss@4ax.com>
Source record: 86813

On Mon, 8 Nov 2004 10:53:06 -0800, "Joel Kolstad"
<JKolstad71HatesSpam@Yahoo.Com> wrote:

>"Richard Clark" <kb7qhc@comcast.net> wrote in message
>news:li5qo0pflff9erct4mj4qe4chg541ekaj1@4ax.com...
>> A 1M loop in a 1Hz field, Hmm?
>
>That was meant to setup the problem such that the loops is electrically
>small and such that only quasi-magnetostatic analysis would be necessary.
>In actuality I'm thinking more along the lines of WWVB loop antennas --
>60kHz.

Hi Joel,

When I was calibrating my Atomic Clock, years distant, my antenna was
a simple 20' whip above the fantail of my ship. We used WWVB and an
unique modulation envelope to perform the job. This didn't make the
antenna particularly efficient, but it was suitably sensitive. Still
and all, there are roughly 5 orders of magnitude down to the 1Hz
region.

You may as well use WWVB as your testbed, or one of the submarine
fleet frequencies around 12KHz. One station is nearby here at Jim
Creek. They use a T antenna of about 1000' tall with a top hat of 6
cables strung between two mountain tops (about 4000 to 6000 feet
between them). The numbers may be off, but you can judge that the
scale is impressive (quite a sight).

>
>> Why bother with the complication of shielding?
>
>The idea is that there's a lot of predominently electric field interference
>around (60Hz power lines, for ones) and that the shield -- if grounded --
>can short out that component of the field and get the loop to respond
>primarily to the magnetic field.

1Hz noise field would come from meteors striking, and ionizing the
upper atmosphere. I doubt you could judge against any local sources
of noise compared to that chatter. Given that line frequency would be
6 Octaves away, if you tuned your antenna (it would be tuned, wouldn't
it?), you would have to be next to a noisy power plant to hear it.

73's
Richard Clark, KB7QHC
73's
Richard Clark, KB7QHC

# 2068. Re: Facts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-08 23:18:12 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <418ffcc1$1_2@127.0.0.1>
Source record: 86814

Gene Fuller wrote:
> I am quite familiar with standing waves, thank you. I have no
> disagreements with Terman, Kraus, Balanis, or any other legitimate experts.

Question is: Why do you promote W8JI's stuff when it is quite obvious
that he is NOT familiar with standing waves. If he were familiar with
standing waves, he wouldn't be asserting that net standing wave current
flows into the bottom of the loading coil and out the top of the loading
coil. Are you absolutely sure that you want to promote the alleged
"information" on W8JI's web page as absolute fact? If he is so right
and so capable of defending his assertions, why isn't he here right
now? (Trying to get W8JI to follow me down the Primrose Path :-) as
he did when he asserted that "differential" effects are "completely
unrelated" to "common mode" effects.)
--
73, Cecil, W5DXP

# 2069. EM field og GSM and microwave oven in V/m ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-08 23:31:43 UTC
From: Thierry <->
Message-ID: <419001ed$1@news.vo.lu>
Source record: 86815

Hi,

I haven't find a better ham newsgroup for this question... so sorry if it is
s bit off subject.

I read somewhere that a GSM 900 MHz produced at electromagentic field of
50V/m (!!) placed at the ear, a 900/1800 Mhe up to 70V/m and a microwave
oven working at 2450 Mhz (>850W) up to 80 V/m on top the cabinet.

These values are falses !
If we convert these data in watts, we see that the power radiated is greater
that the emitter power. Hi !!

More than 100 GSM were recently tested in Belgium by labs and controlled by
the P&T (IBPT) and confirm that the measured fields, at one or two
exceptions, are BELOW 1V/m.
We are thus well below the energy released by any ham device.

Problem I don't know if the microwave oven value is correct.
Can someone know its EM field expressed in V/m ?

Thanks in advance

Thierry, ON4SKY
http://www.astrosurf.com/lombry

# 2070. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-08 23:55:28 UTC
From: "H. Adam Stevens, NQ5H" <NQ5H@ARRL.net>
Message-ID: <10p01tekaq33812@corp.supernews.com>
Source record: 86816

"Jim Kelley" <jwkelley@nospam.edu> wrote in message
news:cmoq1s$6dq$1@news.service.uci.edu...
snip
> The other point of disconnect between the parties hereabouts relates to
> the occasional lack of distinction between the 'flow' of electrons, and
> the propagational 'flow' of an EM wave.
>
> 73, Jim AC6XG
snip>

You got that right, bubba.
73
H.
NQ5H

# 2071. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-09 00:16:02 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41900a4e$1_4@127.0.0.1>
Source record: 86817

H. Adam Stevens, NQ5H wrote:
> "Jim Kelley" <jwkelley@nospam.edu> wrote:
>>The other point of disconnect between the parties hereabouts relates to
>>the occasional lack of distinction between the 'flow' of electrons, and
>>the propagational 'flow' of an EM wave.

> You got that right, bubba.

So does a current wave flow or not? This is not a trivial question
and tends to distinguish between the problems one can solve with
a DC circuit model Vs the more complicated distributed network model
where current waves and voltage waves share a lot of common characteristics.
--
73, Cecil, w5dxp

# 2072. Re: EM field og GSM and microwave oven in V/m ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-09 00:18:35 UTC
From: Tom <noname@noprovider.nodomain>
Message-ID: <v1Ujd.306$iY3.184@trnddc01>
Source record: 86818

The NTIA measured a series of microwave ovens as part of interference
testing for 802.11.

Here's a link to the main page
http://www.its.bldrdoc.gov/pub/ntia-rpt/94-303-1/

And a link to the measurement results
http://www.its.bldrdoc.gov/pub/ntia-rpt/94-303-1/chap5.pdf

Summary of the summary:

Worst-case emissions were near 2450 MHz. Ovens averaged about
+113 dBuV/m, the worst case one was about +128 dBuV/m measured at 3
meters.

dBuV/m is dB relative to a microvolt per meter.

Hopefully I'm not hosed up here, I think +120 dBuV/m is the same as 1 v/m.

That would make these ovens E-fields about -7 dBv/m to +8 dBv/m, or about
0.45 v/m (mean) up to about 2.5 v/m worst case).

-- Tom

"Thierry" <-> wrote in message news:419001ed$1@news.vo.lu...
> Hi,
>
> I haven't find a better ham newsgroup for this question... so sorry if it
> is
> s bit off subject.
>
> I read somewhere that a GSM 900 MHz produced at electromagentic field of
> 50V/m (!!) placed at the ear, a 900/1800 Mhe up to 70V/m and a microwave
> oven working at 2450 Mhz (>850W) up to 80 V/m on top the cabinet.
>
> These values are falses !
> If we convert these data in watts, we see that the power radiated is
> greater
> that the emitter power. Hi !!
>
> More than 100 GSM were recently tested in Belgium by labs and controlled
> by
> the P&T (IBPT) and confirm that the measured fields, at one or two
> exceptions, are BELOW 1V/m.
> We are thus well below the energy released by any ham device.
>
> Problem I don't know if the microwave oven value is correct.

> Can someone know its EM field expressed in V/m ?
>
> Thanks in advance
>
> Thierry, ON4SKY
> http://www.astrosurf.com/lombry
>
>

## 2073. Re: New Smith Chart Program -

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-09 00:28:02 UTC
From: kd5foy <buddycl@nospam.swbell.net>
Message-ID: <e41d70ef6ca9f9751e24d0f7fe272bff@localhost.talkaboutradio.com>
Source record: 86819

i setup an apache web server at http://64.217.230.66/. try downloading
from there, it should be faster. remove the
obvious from my posted email address and let me know the outcome.

larry
kd5foy

# 2074. Re: Is it worth it? Will I notice?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-09 00:43:36 UTC
From: Ralph Mowery <rmowery28146@earthlink.net>
Message-ID: <YoUjd.9516$Gm6.6088@newsread3.news.atl.earthlink.net>
Source record: 86820

> 
> I've changed plans a bit, though - the Boeing ARC 2 meter
> repeater is only 4,000 feet away and I'm worried about
> intermod. So, instead of a high gain antenna at 20', I'm going
> to go with a moderate gain antenna 10' higher. The idea is
> to get good gain with a farther horizon rather than high gain
> with a closer horizon.
> 
> Plus, it's cheaper, too!
> 
> Instead of the GP-9 @ 20', I'm going to add a 10' mast
> and go with a GP-3. Installation sould be a lot easier, too.
> Now, though, my gain figures are 2.913 db improvement
> on VHF and 3.056 db improvement on UHF.
> 
> I'm seriously starting to wonder if I should just leave well
> enough alone - the MFJ-1729 is performing well. I was
> talking to N0IDW on the 145.19 Winfield, KS machine
> (a distance of 32 miles) and I could hit the reverse button
> and hear him on the input. He, however, could not hear me
> on the input.
> 
> 
> Ken KG0WX
> 

Don't change the antenna but go for height and a good grade of coax. It
won't show up for about 50 feet or so of coax on 2 meters but if going to
100 feet of coax it will on 440.
If your setup is doing what you want it to put the money to something else.
I don't do too much with the repeaters and FM so I was just using some rg-59
(75 ohm coax) to a home made dipole about 20 feet up the tower. It does
what I want it to on FM. Unless it was to add some tower I would not spend
$ 250 for an FM antenna system just to work repeaters.

# 2075. DOUBLE RESONANCE IN DIPOLE...THE CAUSE?????

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-09 01:13:32 UTC
From: radio913@aol.com
Message-ID: <1d15af91.0411081713.61e9a2d8@posting.google.com>
Source record: 86821

Hi,

I recently tuned up a VHF dipole, and i got
a double-dip, double resonance for the swr, and
also the minimum swr was around 1.3:1

I did some modifications, and the double
resonance was was gone, plus the swr was down
to less than 1.1:1

I'm certain that one of two things (or a
combo of both) did the trick, but i wanted to
see if any of you seasoned antenna boys could
guess what the problem was.

Thanks for your input!

Slick

# 2076. Re: DOUBLE RESONANCE IN DIPOLE...THE CAUSE?????

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-09 01:23:43 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <e2uqo09mvpgh4uuoahb37u1jgq4ujpsoj5@4ax.com>
Source record: 86822

On 8 Nov 2004 17:13:32 -0800, radio913@aol.com (Dr. Slick) wrote:

>guess what the problem was.

Why do you think it was a problem?

73's
Richard Clark, KB7QHC

# 2077. Re: Loop antenna electrostatic shields

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-09 02:20:08 UTC
From: Joel Kolstad <JKolstad71HatesSpam@Yahoo.Com>
Message-ID: <kpCdnSAoQcxutQ3cRVn-pg@comcast.com>
Source record: 86823

That's some interesting history Richard!

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:1olqo0pcp4nu8hvlo5e93tsodstrb56iss@4ax.com...
> 1Hz noise field would come from meteors striking, and ionizing the
> upper atmosphere. I doubt you could judge against any local sources
> of noise compared to that chatter. Given that line frequency would be
> 6 Octaves away, if you tuned your antenna (it would be tuned, wouldn't
> it?), you would have to be next to a noisy power plant to hear it.

Well, I've read that down around 60kHz there's plenty of interference due to noise on the power lines (I doubt harmonics, probably just plain old noise from, e.g., switching power supplies). But in any case, I'm at the point where I need to just build something and see how it performs.

---Joel

# 2078. Re: Is it worth it? Will I notice?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-09 02:24:39 UTC
From: Ken Bessler <kg0wx@NOSPAMyahoo.com>
Message-ID: <aTVjd.75193$%x.39717@okepread04>
Source record: 86824

"Ralph Mowery" <rmowery28146@earthlink.net> wrote in message
news:YoUjd.9516$Gm6.6088@newsread3.news.atl.earthlink.net...
>

>
> Don't change the antenna but go for height and a good grade of coax. It
> won't show up for about 50 feet or so of coax on 2 meters but if going to
> 100 feet of coax it will on 440.
> If your setup is doing what you want it to put the money to something
> else.
> I don't do too much with the repeaters and FM so I was just using some
> rg-59
> (75 ohm coax) to a home made dipole about 20 feet up the tower. It does
> what I want it to on FM. Unless it was to add some tower I would not
> spend
> $ 250 for an FM antenna system just to work repeaters.
>

Actually, there is quite a lot of fun to be had working FM simplex
and repeaters here when the band opens up. One minute you're
rag chewing with the locals on 146.490 simplex & the next thing
you know someone checks into the group from 3 states away!

That's when it's time to switch over to the beam and the Elecraft.

A few years ago I was living on a hill. With a 14 element yagi on
a 35' mast, I could just hear the Tulsa 145.110 machine when the
band started to open. Then it'd open up 100% and I'd talk to south
Texas on 2m FM or 450 miles away on 446.000 simplex.

Neat!

Ken KG0WX

# 2079. Re: Loop antenna electrostatic shields

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-09 02:53:38 UTC
From: richardharrison@webtv.net
Message-ID: <698-41903132-557@storefull-3254.bay.webtv.net>
Source record: 86827

Tom Bruhns, K7ITM wrote:
"See the discussion in King, Mimno, and Wing`s "Transmission Lines, Antennas. and Wave Guides"."

Ronold W.P. King did a fine job explaining "closed circuits as antennas". It starts on page 224. The shielded loop is diagrammed on page 234.

As Tom Bruhns says, the exterior of the loop is driven from the gap at the midpoint in its shield.
The shielded wire loop is coupled by its proximity to the interior surface of the shield. The outside of the loop is coupled by conduction across the open circuit edges to the inside surface of the loop. The gap is the drivepoint. The secret to noise immunity is symmetry and balance in all aspects of the loop.

Best regards, Richard Harrison, KB5WZI

# 2080. Re: EM field og GSM and microwave oven in V/m ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-09 02:55:47 UTC
From: Buba Zebop <nospam@nospam.com>
Message-ID: <2vapt1F2gscdsU1@uni-berlin.de>
Source record: 86825

That is outside the oven, Inside it's about 10,000 V/m or so?
I know a neon bulb glows with 0.01 leads at a breakdown voltage of 90 volts
and really glows hot.

"Tom" <noname@noprovider.nodomain> wrote in message
news:v1Ujd.306$iY3.184@trnddc01...
> The NTIA measured a series of microwave ovens as part of interference
> testing for 802.11.
>
> Here's a link to the main page
> http://www.its.bldrdoc.gov/pub/ntia-rpt/94-303-1/
>
> And a link to the measurement results
> http://www.its.bldrdoc.gov/pub/ntia-rpt/94-303-1/chap5.pdf
>
> Summary of the summary:
>
> Worst-case emissions were near 2450 MHz. Ovens averaged about
> +113 dBuV/m, the worst case one was about +128 dBuV/m measured at 3
> meters.
>
> dBuV/m is dB relative to a microvolt per meter.
>
> Hopefully I'm not hosed up here, I think +120 dBuV/m is the same as 1
v/m.
>
> That would make these ovens E-fields about -7 dBv/m to +8 dBv/m, or
about
> 0.45 v/m (mean) up to about 2.5 v/m worst case).
>
> -- Tom
>
>
>
>
>
>
> "Thierry" <-> wrote in message news:419001ed$1@news.vo.lu...
> > Hi,
> >
> > I haven't find a better ham newsgroup for this question... so sorry if
it
> > is
> > s bit off subject.

> >
> > I read somewhere that a GSM 900 MHz produced at electromagentic field of
> > 50V/m (!!) placed at the ear, a 900/1800 Mhe up to 70V/m and a microwave
> > oven working at 2450 Mhz (>850W) up to 80 V/m on top the cabinet.
> >
> > These values are falses !
> > If we convert these data in watts, we see that the power radiated is
> > greater
> > that the emitter power. Hi !!
> >
> > More than 100 GSM were recently tested in Belgium by labs and controlled
> > by
> > the P&T (IBPT) and confirm that the measured fields, at one or two
> > exceptions, are BELOW 1V/m.
> > We are thus well below the energy released by any ham device.
> >
> > Problem I don't know if the microwave oven value is correct.
> > Can someone know its EM field expressed in V/m ?
> >
> > Thanks in advance
> >
> > Thierry, ON4SKY
> > http://www.astrosurf.com/lombry
> >
> >
>
>

## 2081. Re: Is it worth it? Will I notice?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-09 03:07:56 UTC
From: Ralph Mowery <rmowery28146@earthlink.net>
Message-ID: <gwWjd.5344$_J2.238@newsread2.news.atl.earthlink.net>
Source record: 86826

> Actually, there is quite a lot of fun to be had working FM simplex
> and repeaters here when the band opens up. One minute you're
> rag chewing with the locals on 146.490 simplex & the next thing
> you know someone checks into the group from 3 states away!
>
> That's when it's time to switch over to the beam and the Elecraft.
>
> A few years ago I was living on a hill. With a 14 element yagi on
> a 35' mast, I could just hear the Tulsa 145.110 machine when the
> band started to open. Then it'd open up 100% and I'd talk to south
> Texas on 2m FM or 450 miles away on 446.000 simplex.
>
> Neat!
>
> Ken KG0WX
>

That setup is a big differance than in your first posting. I mentioned I do not do much FM work on 2 meters . I do work weak signal on 2 meter and 432 mhz ssb. It is not too unusual to work long distances that way. Ham radio has many things that can be fun. I usually think of the repeaters and FM as local contacts. I have worked from North Carolina to Canada about twice on 2 meter FM. Using a good antenna and ssb it is common to work out to 200 to 300 miles. The band "opens" a lot more if you have the advantage of about 10 to 20 more db of ssb.

# 2082. Re: DOUBLE RESONANCE IN DIPOLE...THE CAUSE?????

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-09 03:08:40 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <419032c3$1_4@127.0.0.1>
Source record: 86828

Dr. Slick wrote:
.> I'm certain that one of two things (or a
> combo of both) did the trick, but i wanted to
> see if any of you seasoned antenna boys could
> guess what the problem was.

If it has two elements (sure, verticals can have two elements)
then a difference in resonance between the two elements could
easily have been the cause.
--
73, Cecil, W5DXP

## 2083. Re: Is it worth it? Will I notice?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-09 03:29:51 UTC
From: Tom Ring <news0000@taring.org>
Message-ID: <419039b0$0$91009$39cecf19@news.twtelecom.net>
Source record: 86829

Ralph Mowery wrote:

>
> That setup is a big differance than in your first posting. I mentioned I do
> not do much FM work on 2 meters . I do work weak signal on 2 meter and 432
> mhz ssb. It is not too unusual to work long distances that way. Ham radio
> has many things that can be fun. I usually think of the repeaters and FM as
> local contacts. I have worked from North Carolina to Canada about twice on
> 2 meter FM. Using a good antenna and ssb it is common to work out to 200 to
> 300 miles. The band "opens" a lot more if you have the advantage of about
> 10 to 20 more db of ssb.
>

Good luck following the weak signal VHF/UHF track here. 10 meters is
short for this bunch, except for very few. Less than half dozen appear
to know what EME is.

BTDT

# 2084. Re: Reflectors For H.F. use

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-09 04:53:08 UTC
From: Crazy George <muNnscOh@attSglPobaAl.nMet>
Message-ID: <41904fa8_2@news1.prserv.net>
Source record: 86830

Art:

Here is a URL with a couple of photos of HF antennas with real reflectors. For more, do a search for FRD-10, FLR-9, and
Wullenweber. Just look at the photos; most of the text is, unfortunately, not very accurate. While I never knew the
German originators of the design during WW2, I did work with the engineer who developed the US version back in the 50s.
http://www.mindspring.com/~cummings7/wullen.html
--
Crazy George
Remove N O and S P A M imbedded in return address

# 2085. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!! _____==___ pemluzov

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-09 05:35:02 UTC
From: Mike <mrgizmo@vianet.ca>
Message-ID: <10p0lor7v3b230b@corp.supernews.com>
Source record: 86831
Cross-posted to: rec.pyrotechnics,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc

Honestly I thought Kang or Kodos would win.

"Rich (aka Old Dog)" <Old_dog@atlantic.net> wrote in message
news:1irjd.3560$Fg2.1473635@newshog.newsread.com...
> The second half made more sense.
>
> -Rich
>
> <Victim_of_American_Stupidity@gafbi.ut.us> wrote in message
> news:sqelcyzodllzlnv0xyctlrvh1enzjpk@4ax.com...
> > You blithering idiots! You re-elected that imbecile George Bush as your
> President.
> > He's a complete moron and so are most of you!
> > -
> > Don't you care what the rest of the world thinks of you? Don't you care
what
> impact
> > American foreign policy has on the rest of the planet? Does Iraq look
like a
> success
> > to anyone? Doesn't it bother you that he's alienated every friend you
have?
> > What were you thinking???
> > -
> > Prior to this, it was American policy and the American government that
was so
> universally
> > hated around the world. Now it's going to be 'Americans' we hate. More
> sympathy
> > for Bin Laden... More attacks on American institutions... More
isolation.
> How blind
> > can you dumb rednecks in middle-America be, not to see this?
> > -
> > If you get hit again, or your economy goes into a deep depression, the
> American
> > people will be getting exactly what they deserve!
> > -
> > <back turned>
> > -
> > -
> > -

> > -
> > -
> > -
> > [Ignore what follows]
> > Both departing now, Ron and Aslan expected the lean forests inside
> > wide orange. There, Gregory never wanders until Alice irritates the
> > sour pen eventually. You won't help me grasping between your
> > abysmal corner.
> >
> > Generally, go burn a case! Her porter was rude, weird, and pours
> > outside the autumn.
> >
> > Let's dream before the shallow navels, but don't promise the
> > dull gardners. Gavin! You'll smell cobblers. Sometimes, I'll
> > laugh the twig. They are irrigating with inner, behind stupid,
> > among cheap puddles. When doesn't Saad recommend strongly? If you will
> > improve Mahammed's hair to carpenters, it will surprisingly arrive the
> > cat. It should dully cover between hollow hot stars. Hardly any
> > unique blunt diets amazingly love as the full sauces tease.
> > Never call a tailor! Get your seemingly believing jar over my
> > fog.
> >
> > They are cleaning in back of the moon now, won't kick dogs later.
> >
> > If you'll judge Sue's desert with pears, it'll furiously excuse the
> > ticket.
> >
> >
> >
>
>

# 2086. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!! _____==___ pemluzov

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-09 06:27:06 UTC
From: -exray <!dontspamoleexray@coqui.net>
Message-ID: <419060ef$1_2@127.0.0.1>
Source record: 86832
Cross-posted to: rec.pyrotechnics,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc

Mike wrote:
> Honestly I thought Kang or Kodos would win.

One thing is sure, anonymous internet trolls from UK didn't win.

-BM

# 2087. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!! _____...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-09 06:34:56 UTC
From: richardharrison@webtv.net
Message-ID: <16129-41906510-478@storefull-3255.bay.webtv.net>
Source record: 86834

Art Unwin wrote:
"The U.K. has a German lineage in the royal family and Germany certainly did not want the commonwealth to enter the war."

More than German lineage. All the major caesars of europe at the start of WW-1 were Victoria`s grandchildren. Hope Art is recovering well and rapidly without complications! George the 5th offered the Tsar of Russia asylum along with his family, at the time of the revolution, but it was too little and too late and they were all murdered.

Germany was insulted and felt abused by terms of the WW-1 treaty imposed on them at the end of the war. Germany deserved harsh restrictions. The Tsar, The Kaiser, and George 5th were all cousins.

After Serbs assassinated an archduke in Sarajevo, the Tsar felt obliged to avenge his fellow slav. He would invade. It was August and holiday month in Europe. No one should take notice or retaliate. Wrong!

The Kaiser felt threatened and retaliated. So, by accident and error, a war erupted from a family row.

Hitler was an ambitious WW-1 veteran who promised renewed prosperity in the middle of a world-wide economic depression, and reclaimed glory for Germans. He had no scruples regarding ascension to Fuhrer, but his personal habits were good. He didn`t regularly smoke, drink, chase wild women, or eat meat. He was persuasive as a speaker and promised to right the wrongs imposed on Germany. Also, the Bolsheviks were a real threat to the whole world, and Hitler was anti-Bolshevik!

Hitler delivered on prosperity and "living room" for Germans until he overextended into Russia. He micromanaged his generals who were actually often good at waging war. As a former corporal, Hitler was inspired but outclassed and doomed by the size of the war he had undertaken. He had many fantastic new weapons, but made the mistake of ridding Germany of Jews before they could make an atom bomb for him.

Art asked:
"Do you think the U.K. was silly to declare war alone on September 3, 1939?" No. Hitler had to be stopped. It should have come before Munich. It should have come when Hitler disregarded the restrictions on German rearmarment. It was already too late at Munich. But the League of Nations had been rejected and allies were very hard to find early on. No one can know what would have played out had history had taken a different turn at some point. Maybe after Poland, Hitler would have gone after Russia. There was a score to settle there from WW-1 and Hitler had the Bolsheviks on his list of those to subdue. The WW-1 allies could

have furnished Russia and Germany just enough weapons to completely exhaust each other.

We don`t learn quickly. do we? Why didn`t we do that with Iran and Iraq? Oh, that`s complicated by their oil production which the world can`t afford to lose.

Best regards, Richard Harrison, KB5WZI

# 2088. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!! _____...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-09 06:39:26 UTC
From: richardharrison@webtv.net
Message-ID: <15018-4190661E-637@storefull-3252.bay.webtv.net>
Source record: 86833

Art Unwin wrote:
"The U.K. has a German lineage in the royal family and Germany certainly did not want the commonwealth to enter the war."

More than German lineage. All the major caesars of europe at the start of WW-1 were Victoria`s grandchildren. Hope Art is recovering well and rapidly without complications! George the 5th offered the Tsar of Russia asylum along with his family, at the time of the revolution, but it was too little and too late and they were all murdered.

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We don`t learn quickly. do we? Why didn`t we do that with Iran and Iraq? Oh, that`s complicated by their oil production which the world can`t afford to lose.

Best regards, Richard Harrison, KB5WZI

# 2089. w.t.b icom 70 cm rigs ic-2340 ,ic-2350, ic-2400a ,ic-2400 ,eic-2410e ,ic-2410h

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-09 07:05:20 UTC
From: Silvio <silvioylstra@hotmail.com>
Message-ID: <cmpq75$gdd$1@news-02.connect.com.au>
Source record: 86835

hi..... wanted to buy any of these models icom 70 cm rigs ic-2340 ,ic-2350, ic-2400a ,ic-2400 ,eic-2410e ,ic-2410h

, i will pay a cost for shipping to australia and payment would be with western union please some one sell to me .....73s silvio..... silvioylstra@yahoo.com.au

# 2090. Re: Loop antenna electrostatic shields

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-09 12:23:33 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0411090423.6f6cdce3@posting.google.com>
Source record: 86836

richardharrison@webtv.net (Richard Harrison) wrote in message
> The secret to noise immunity is symmetry and balance
> in all aspects of the loop.

Exactly. But to me, there is no such thing as noise immunity as far as far field noise. The only noise that really can be reduced, is any possible common mode related noise due to lack of a balun device, whatever, at the feedpoint. And that assumes you actually have shack noise to reduce. Not all do. IE: using a loop out in the middle of the woods with a battery radio, etc...You can change polarity to reduce maybe 20 db or so, but thats another issue...As far as far field noise, the only way to reduce, is to ensure better balance. Better balance gives you deeper nulls, and hence, lower noise, IF!, you are using the loop to *NULL* the noise source. If you don't turn the loop to null the noise source, it will be just as noisy as any other loop. But as mentioned, this good balance can be attained with unshielded loops also. As far as I can tell, and I have tested this in the real world, balance is what separates a good loop from a medeocre loop. Not a shield, etc.
The split shield is just one method used to provide good balance. Thats why they are often used for DFing. With good balance, the nulls will be sharp, and there will be little skewing of the pattern. None of the shielded loops I've tried were any quieter to far field noise than my unshielded loops. Other than small differences in signal strength due to size, turns differences, the overall s/n ratio was the same. I could not hear anything on one loop, that couldn't be heard on another due to any increase or decrease in s/n ratio. In other words, all my loops act pretty much the same, shielded, or unshielded. MK

# 2091. Re: Facts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-09 12:34:33 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10p1fcjlf1kc36f@corp.supernews.com>
Source record: 86837

Reg Edwards wrote:
>
> The only program I am reasonably familiar with is the several years old free
> EZNEC. I don't know whether it has been updated or not and I make very
> little use of it. Come to think of it, I don't make much use of my own
> programs either.
>
> Regarding shallow buried radials in conjunction with a vertical, have you
> tried my recent program RADIALS2 ?
>
> It is intended to demonstrate performance of the radials themselves in a
> given ground rather than antenna performance. Which I suspect is the reverse
> of NEC-4.
>
> As you probably know, the effects of above-ground radials change very
> rapidly as they get within a few inches of the ground surface. But once in
> the ground they tend to remain static.
>
> RADIALS2 uses an entirely different, unconventional form of performance
> analysis. If other programs don't take soil permittivity into account at HF,
> predictions must lose accuracy. Are the inputs and outputs of NEC-4 in a
> form suitable for a direct comparison with my simple program?

Yes. I made a few comparisons long ago, shortly after you introduced
your program, and found major disagreement. NEC-4 approximately agrees
with the measurements made long ago by Brown, Lewis, and Epstein (whom I
know you've never heard of), once you make reasonable assumptions of
ground conductivity and dielectric constant. Your program gives very
different answers. At the time, I concluded that there's considerable
coupling between radials, which your program doesn't seem to account
for. Interested readers should look in the google archives for postings
in this group on the thread "Ground Radials" in July 1998 and
"Evaluation of G4FGQ Freeware Antenna Software" in September 1998.

>
> But in view of the large uncertainties involving ground conditions, accuracy
> is not worth making much of a song and dance about.

True, but in the past, you've used the results from your program to
reach conclusions about radial systems that I didn't, and don't, believe
to be valid. (See the threads mentioned above.) I don't think it's wise
to draw conclusions from a program that gives results which are
demonstrably very different from the only measurements regarded to be
reasonably well made.

Roy Lewallen, W7EL

# 2092. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-09 12:50:37 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10p1fcmlekobk71@corp.supernews.com>
Source record: 86838

Richard Clark wrote:

> On Sun, 07 Nov 2004 00:56:00 -0800, Roy Lewallen <w7el@eznec.com>
> wrote:
>
>
>>The difference between gain relative to isotropic (which you're
>>unnecessarily calling "true gain") and directivity is only the
>>efficiency.
>
>
> Hi Roy,
>
> Let's call it relative gain then. The point of the matter is not in
> terminology but in magnitude and correlation.

Let's not call it "relative gain". There's no need to invent new nomenclature to describe known quantities which we don't understand. There are plenty of terms which are universally agreed upon and hence communicate concepts adequately -- inventing new ones just obscures what we have to say.

> The Thread, throughout, is constituted of four principles:
> Rr;
> Current;
> Radiator size;
> Loading;
>
> To reveal their inter-relatedness required an impartial witness of an
> external load (the remote antenna which is the raison d'etre of
> communication).

An "external load" (by which I believe you mean a receive antenna) is necessary for measurements, but not for calculation as by a program. But there's no harm in using one for computer analysis, as long as you don't misinterpret what the results mean.

>
> The gain evidenced in this remote antenna is not some arbitrary change
> of terms that is alien to the craft of communication (nor even the
> majority of engineering).

I believe you mean the *signal strength detected by* rather than *gain evidenced in*. If you make that replacement, I agree. Otherwise, it makes no sense -- the remote antenna does not "evidence gain".

It encompasses differences that exceed 1dB,
> eclipsing that even to the point of being 7dB in the first iteration.
> When in the second iteration the shortened antenna is brought to
> resonance, the change still exceeds 1dB (2.9dB by my reckoning). ALL
> such changes, when viewed through the veil of dBi simply reveal
> miniscule changes of what you call ground reflection. As such, dBi is
> a poor mechanism to reveal Rr's characteristic through structural
> variations.

I'm sorry, I can't make any sense out of that, so I can't respond.
>
> I won't go on with the remainder of iterations because no new
> observations would be drawn. Indeed, the data supports the generality
> that suits the purpose of achieving the expected results. As I
> offered:
>
>
>>>This comes as no surprise to many.
>
>
> Now, the issue of Isotropism is one that is power centric, and this is
> certainly the common experience of any Ham trying to load an antenna
> from a real transmitter. They have a finite amount of power they wish
> to maximize, and this then becomes an issue of efficiency. However,
> there is NOTHING in my work that states this is a goal - or I would
> have expressed that in no uncertain terms. If any seek that
> divergence of issue, then my data supports it without further
> qualification.

I'm having some trouble understanding this, too, but think maybe you're trying to say that hams want to maximize the signal received by a distant station. If so, I agree. But your analysis doesn't show how this is done by increasing Rr. As I said earlier, the advantage to raising Rr is to improve efficiency -- your models were nearly 100% efficient, so weren't able to demonstrate this. If you had added resistance to simulate ground resistance as I had suggested, this would lower the efficiency so the effect of changing Rr could be clearly shown. And raising the efficiency does indeed improve the strength of the received signal.

>
> So, gain is entirely consistent within the context of the simple
> agenda that was explicitly described. Gain was shown to follow
> structural changes with positive correlation. Gain was shown to
> follow those changes in direct proportion. Gain was shown to be
> consistent with expectation. If such Gain is shown to be a wash in
> efficiency at best, worst for wear, or a boon to mankind, that is
> simply an issue of implementation and outside of my discussion of
> examining:
> Rr;
> Current;
> Radiator size;

> Loading.

Again, I'm baffled. I'm sure that more highly educated readers than I understand what you're saying, but I also hope that even those with less education in the fine arts of language can understand what I've said. The principles involved are really simple, and I hate to seem them made unnecessarily complex by misinterpretation.

Roy Lewallen, W7EL

## 2093. Announcing SmartSmith version 1.5.3

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-09 14:07:58 UTC
From: w9dmk@crosslink.net
Message-ID: <4190cb2a.2581031@news.crosslink.net>
Source record: 86842

SmartSmith version 1.5.3 - now available at
http://www.qsl.net/w9dmk

This release incorporates the following major changes:

Main Window -
The main window has been shrunk to fit comfortably in an 800 x 600 display environment. The earlier releases were all designed for a 1024 x 768 (XGA) display environment, and users with older systems had great difficulty in using the system on an 800 x 600 (SVGA) display. In order to accomplish the re-sizing of the main window, the Smith Chart display was reduced in size to 85% of its former size. The 9 different matching section controls were also removed from the main window and given their own modal dialogue boxes that are exclusively selected and shown floating above the main window only when in use.

Range of Control over Elements -
All matching section controls other than those involving lengths of transmission line were extensively revised to provide the user with a greater range of values. In this release, each control has a range of 5 decades and 50 discrete values within each decade. For example, the Series Resistance matching section now starts at the value 0.1 ohm and extends to a maximum value of 10000 ohms in 250 steps. Likewise, the series capacitive reactance matching section starts at a value of 0.1 ohms and goes to a maximum value of 10000 ohms of capacitive reactance, regardless of frequency. Each matching section control displays its current setting both in ohms or milli-Siemens, as appropriate, and in component values, such as microHenrys or picoFarads. The exception is Series Resistance, which displays only in ohms. Each control also displays its "dial" or "counter" setting between 0 and 250.

The matching sections that employ transmission lines (Stub Open, Stub Shorted, and Series Transmission Line) still display their value in electrical degrees and in meters, as in previous releases. However, note that only "Stub Open" and Serial Transmission Line display their electrical length in degrees directly in the spin control display, whereas the "Stub Shorted" displays its electrical degrees below the spin control display along with the length in meters. This peculiarity in "Stub Shorted" is in order to make "Stub Shorted" behave the same as all other controls. Each of the other controls starts with a value that has the least effect on the existing impedance situation spins upwards to a value that has the greatest effect. In order to accomplish that with a shorted stub, it is necessary to start the shorted stub at its maximum (90 degrees) length and spin it up to its

shortest length (0 degrees).

Help File Improvements -
The Help File now includes topics on "Designing Pi Sections" and "Quick Start". The "Quick Start" topic goes through a simple design of an L-Section to match a high impedance, complex load to a 50 ohm source. It also goes through a more difficult design using a series transmission line section to create a match with a high impedance, complex load and a 300 ohm line. The latter exercise is take directly from Chapter 28 of the ARRL Antenna Book, 17th Edition.

Tnx and 73,

Bob, W9DMK, Dahlgren, VA
http://www.qsl.net/w9dmk

## 2094. Re: Telescopic to coax adaptor?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-09 14:08:02 UTC
From: Terry <tsanford@nf.sympatico.ca>
Message-ID: <jb4kd.19812$km5.841818@news20.bellglobal.com>
Source record: 86839

"Mike Spence" <mike.s.spence@btopenworld.com> wrote in message
news:c549c044.0411051003.58e3dcfb@posting.google.com...
> "Jack Painter" <223bthp@cox.net> wrote in message
news:<Zuuid.1$uT4.0@lakeread03>...
> > Mike, a receiver that does not provide for external antenna connection,
will
> > probably not benefit from forcing the input of one. The front end design
of
> > many portables uses double-conversion only, this allows for reception of
> > fairly weak signals from the provided whip antenna. But it does not
always
> > bode well when powerful inputs such as an external antenna can provide,
> > overloading the little portables and making it more difficult to discern
> > between stations close to each other. Recommend you use your portable
for
> > what it was intended for, and look into adding a tabletop receiver if
you
> > want to input external antenna feed.
> >
> > Best regards,
> >
> > Jack Painter
> > Virginia Beach VA
>
> Thanks for that Jack, I see your point. The receiver in question is a
> Sony XDR-S1 DAB and I'm in a marginal reception area. Before I spent
> out on DAB I tried one (not the Sony) and the reception was
> reasonable, the Sony isn't as good though and I just thought that
> maybe I could help it a bit with an external aerial.
>
> Thanks for your thoughts,
>
> Mike

Rig up a random length insulated wire temporary antenna outside to a tree or
something. Bring the end to your receiver and wind it around the outside of
the radio case a few times and temporarily connect the free end to something
grounded such as the ground pin of a duplex outlet; be careful! This may
give you some capacitive and inductive coupling especially if your radio has
a ferrite rod antenna. It may, on some bands, give an improvement.
Experiment a bit. Have even wound the telephone cord around a portable. Also
connected capacitively from the whip of a DX394 to a plastic covered metal
clothes line and right now I've got a lead from the receiver whip clipped to
a six foot metal bedroom curtain rod! It even improved very weak reception

here from European Long Wave stations on 152 to 198 kilohertz. Yup that's around a wavelength of 1500 metres! Also if you've got a phone with any metal in it (most phones nowadays are plastic!) clip a lead from your whip to that. Try anything that might work and is safe.
Have fun. Terry.

## 2095. Re: Is it worth it? Will I notice?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-09 14:29:40 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <2vc2iqF2ktmrhU1@uni-berlin.de>
Source record: 86840

> Well, a 6 dB boost would double your range, IF you aren't
> hitting the limits imposed by your radio horizon.

---

Clarification: the coverage AREA doubles for the above situation, but the "range," or distance from the transmit antenna to a given field strength value increases only by about 40%.

Here are the numbers, using the FCC's F50,50 curves for UHF NTSC TV propagation.

50W ERP from 100 feet above average terrain:

60dBuV/m at 2.99 miles
Coverage area within the 60dBuV/m contour = 28 sq miles

200W ERP from 100 feet above average terrain (a 6dB ERP increase from the above example):

66dBuV/m at 2.99 miles
60dBuV/m at 4.2 miles
Coverage area within the 60dBuV/m contour = 55.4 sq miles

The radio horizon for these examples is located about 14 miles from the antenna site (at a 0.15 degree depression angle).

RF

Visit http://rfry.org for FM transmission system papers.

# 2096. Please send me your opinion about my project as placed on

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-09 15:24:23 UTC
From: inforelation55@yahoo.com
Message-ID: <c19abadd.0411090724.62050579@posting.google.com>
Source record: 86841

Hallo,

I have advertised on InfoRelation.com some project connetcted with the
subject of our discussion list (you will find that project by choosing
appropriate category and subcategory).
Please let me know about your opinion relating to my project. As I have
already written in my advertisement on InfoRelation - it will be possible
to earn some money on this project.

Thanks for all,
Sandra Smith

# 2097. Re: DOUBLE RESONANCE IN DIPOLE...THE CAUSE?????

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-09 16:08:48 UTC
From: fractenna@aol.com
Message-ID: <20041109110848.08198.00000328@mb-m04.aol.com>
Source record: 86843

>> I'm certain that one of two things (or a
>>combo of both) did the trick, but i wanted to
>>see if any of you seasoned antenna boys could
>>guess what the problem was.
>
>_____________________________________________________
>
>There is no problem. Dipoles and other antennas always show multiple
>resonances. Just take an SWR analyzer and sweep a wide frequency range.
>You'll find resonances all over the place.
>
>--
>Bill W6WRT
>

Dipoles are essentially harmonic devices, so they experience harmonic resonances.

If you find resonances that are not harmonic on a dipole, then there are loading objects that are producing them.

What exactly is your dipole? What is in proximity to it? How do you know that the coax is choked properly?

73,
Chip N1IR

# 2098. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!! _____==___ pemluzov

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-09 16:13:58 UTC
From: jim breeyear <james.breeyear@uvm.edu>
Message-ID: <cmqqc6$27vv0$2@swen.emba.uvm.edu>
Source record: 86844
Cross-posted to: rec.pyrotechnics,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc

This rag is on a lot of groups. running rampid onthe r/c group. Ignore
it and it will go away.

-exray wrote:

> Mike wrote:
>
>> Honestly I thought Kang or Kodos would win.
>
>
> One thing is sure, anonymous internet trolls from UK didn't win.
>
> -BM

# 2099. Re: Facts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-09 16:41:50 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cmqs0d$ii4$1@sparta.btinternet.com>
Source record: 86845

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:10p1fcjlf1kc36f@corp.supernews.com...
> Reg Edwards wrote:
> >
> > The only program I am reasonably familiar with is the several years old
free
> > EZNEC. I don't know whether it has been updated or not and I make very
> > little use of it. Come to think of it, I don't make much use of my own
> > programs either.
> >
> > Regarding shallow buried radials in conjunction with a vertical, have
you
> > tried my recent program RADIALS2 ?
> >
> > It is intended to demonstrate performance of the radials themselves in a
> > given ground rather than antenna performance. Which I suspect is the
reverse
> > of NEC-4.
> >
> > As you probably know, the effects of above-ground radials change very
> > rapidly as they get within a few inches of the ground surface. But once
in
> > the ground they tend to remain static.
> >
> > RADIALS2 uses an entirely different, unconventional form of performance
> > analysis. If other programs don't take soil permittivity into account at
HF,
> > predictions must lose accuracy. Are the inputs and outputs of NEC-4 in
a
> > form suitable for a direct comparison with my simple program?
>
> Yes. I made a few comparisons long ago, shortly after you introduced
> your program, and found major disagreement. NEC-4 approximately agrees
> with the measurements made long ago by Brown, Lewis, and Epstein (whom I
> know you've never heard of), once you make reasonable assumptions of
> ground conductivity and dielectric constant. Your program gives very
> different answers. At the time, I concluded that there's considerable
> coupling between radials, which your program doesn't seem to account
> for. Interested readers should look in the google archives for postings
> in this group on the thread "Ground Radials" in July 1998 and
> "Evaluation of G4FGQ Freeware Antenna Software" in September 1998.
>
> >
> > But in view of the large uncertainties involving ground conditions,

accuracy
> > is not worth making much of a song and dance about.
>
> True, but in the past, you've used the results from your program to
> reach conclusions about radial systems that I didn't, and don't, believe
> to be valid. (See the threads mentioned above.) I don't think it's wise
> to draw conclusions from a program that gives results which are
> demonstrably very different from the only measurements regarded to be
> reasonably well made.
>
> Roy Lewallen, W7EL
==========

Roy, it's gratifying to see, once again, you take notice of my sayings.

Such as, I repeat -

"Fact 4. Computer programs do not tell gospel truths. They are at least as unreliable as their human programmers."
---
Reg.

# 2100. Re: DOUBLE RESONANCE IN DIPOLE...THE CAUSE?????

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-09 16:43:55 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <oYudnfNVf-Esbg3cRVn-iA@comcast.com>
Source record: 86846

"Dr. Slick" <radio913@aol.com> wrote in message
news:1d15af91.0411081713.61e9a2d8@posting.google.com...
> Hi,
>
> I recently tuned up a VHF dipole, and i got
> a double-dip, double resonance for the swr, and
> also the minimum swr was around 1.3:1
>
> I did some modifications, and the double
> resonance was was gone, plus the swr was down
> to less than 1.1:1
>
> I'm certain that one of two things (or a
> combo of both) did the trick, but i wanted to
> see if any of you seasoned antenna boys could
> guess what the problem was.
>
> Thanks for your input!
>
>
> Slick
What happened to the total bandwidth after you tuned it?

Tam/WB2TT

# 2101. Re: DOUBLE RESONANCE IN DIPOLE...THE CAUSE?????

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-09 16:49:31 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <cmqsk2$2cp$1@newshost.mot.com>
Source record: 86849

"Dr. Slick" <radio913@aol.com> wrote in message
news:1d15af91.0411081713.61e9a2d8@posting.google.com...
> Hi,
>
> I recently tuned up a VHF dipole, and i got
> a double-dip, double resonance for the swr, and
> also the minimum swr was around 1.3:1

At what two frequencies? What construction, feed type...? What method
of measurement and equipment type/numbers?

First, let's determine if there even is a problem with the antenna...

>
> I did some modifications, and the double
> resonance was was gone, plus the swr was down
> to less than 1.1:1

What mods?

73,
--
Steve N, K,9;d, c. i My email has no u's.

>
> I'm certain that one of two things (or a
> combo of both) did the trick, but i wanted to
> see if any of you seasoned antenna boys could
> guess what the problem was.
>
> Thanks for your input!
> Slick

## 2102. Re: EM field og GSM and microwave oven in V/m ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-09 16:54:01 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <cmqssg$2dj$1@newshost.mot.com>
Source record: 86850

"Buba Zebop" <nospam@nospam.com> wrote in message
news:2vapt1F2gscdsU1@uni-berlin.de...
> That is outside the oven, Inside it's about 10,000 V/m or so?
> I know a neon bulb glows with 0.01 leads at a breakdown voltage of 90
volts
> and really glows hot.

Try an ordinary 120 V bulb or a small florescent. Be sure they are
expendable!.
73,
--
Steve N, K,9;d, c. i My email has no u's.

# 2103. Re: EM field og GSM and microwave oven in V/m ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-09 16:57:01 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <cmqt22$2e3$1@newshost.mot.com>
Source record: 86848

"Thierry" <-> wrote in message news:419001ed$1@news.vo.lu...
> Hi,
>
> I haven't find a better ham newsgroup for this question... so sorry if it
is
> s bit off subject.
>
> I read somewhere that a GSM 900 MHz produced at electromagentic field of
> 50V/m (!!) placed at the ear, a 900/1800 Mhe up to 70V/m and a microwave
> oven working at 2450 Mhz (>850W) up to 80 V/m on top the cabinet.
>
> These values are falses !
> If we convert these data in watts,

Ummmm... What's the conversion you are using...?

I also get -120 dB V = 0 dB uV
--
Steve N, K,9;d, c. i My email has no u's.

we see that the power radiated is greater
> that the emitter power. Hi !!
>
> More than 100 GSM were recently tested in Belgium by labs and controlled
by
> the P&T (IBPT) and confirm that the measured fields, at one or two
> exceptions, are BELOW 1V/m.
> We are thus well below the energy released by any ham device.
>
> Problem I don't know if the microwave oven value is correct.
> Can someone know its EM field expressed in V/m ?
>
> Thanks in advance
>
> Thierry, ON4SKY
> http://www.astrosurf.com/lombry
>
>

# 2104. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-09 17:00:59 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <d5kso0t7nugp3c6ng5941tnud0p23ifhhj@4ax.com>
Source record: 86847

On Tue, 09 Nov 2004 04:50:37 -0800, Roy Lewallen <w7el@eznec.com>
wrote:

>Again, I'm baffled

Hi Roy,

So you insist.

73's
Richard Clark, KB7QHC

# 2105. Re: Facts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-09 17:10:30 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <cmqtrc$2j5$1@newshost.mot.com>
Source record: 86851

Nit pick on...

"Gene Fuller" <W4SZzzzzzz@att.net> wrote in message
news:GFSjd.866436$Gx4.599676@bgtnsc04-news.ops.worldnet.att.net...
> Richard,
>
> I am quite familiar with standing waves, thank you. I have no
> disagreements with Terman, Kraus, Balanis, or any other legitimate
experts.
> You can reread what I said, if you care to understand, rather than pick
> a sentence out of context.
> 73,
> Gene
> W4SZ
> Richard Harrison wrote:
> > Gene, W4SZ wrote:
> > "Standing waves are not static."
> >
> > Incredible!
> >
> > My "American College dictionary" defines "standing wave": "a
> > distribution of wave displacements , such that the distribution in space
> > is periodic, with fixed maximum and minimum points, with the maxima
> > occuring everywhere at the same time, as in vibration of strings,
> > electric potentials, acoustic pressures, etc."
> >
> > Note the word "fixed" in the definition. That`s a synonym for "static".

This is arguable, but only at the nit level. Synonyms don't always fit
exactly and it depends upon how they appear in the sentence.
The passage says "...fixed maximum and minimum points...". This is
"FIXED...POINTS" of the standing wave. The maximum and minimum *points*
remain in the same location. Indeed we can also se the word static to
describe these *points*.
HOWEVER, the voltage at any one (non zero) point is not static as it
varies at the RF rate. I believe one poster used the phrase "a standing
wave is/is not static". Using the phrase "a standing wave is static"
implies meaning of the second type. That is, that the whole phenomenom is
static, which is is not.

So there! Play with words if U like. How about discussing the concepts...
--
Steve N, K,9;d, c. i My email has no u's.

> >
> > For how this applies to antennas and transmission lines, see page 177 of
> > Kraus` "Antennas", third edition, Figure 6-7. Notice that current
> > reverses 1/2-wavelength back from the antenna`s open-circuit endjust as
> > it does in the case of the open-circuit transmission-line, as shown by
> > Terman on page 92 of "Electronic and Radio Engineering", 1955 edition,
> > and on page 94 in FiG. 4-5 (a). This all starts at the reflection point
> > and progresses the same regardless of the length of the antenna or
> > transmission-line. It is due to superposition of the forward and
> > reflected waves, just as Cecil maintains.
> >
> > Advice: Never argue with Kraus and Terman.
> >
> > Best regards, Richard Harrison, KB5WZI
> >
>

# 2106. Re: Current in loading coil, EZNEC - helix

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-09 17:45:15 UTC
From: richardharrison@webtv.net
Message-ID: <15022-4191022B-8@storefull-3252.bay.webtv.net>
Source record: 86852

Roy, W7EL wrote:
"The principles involved are really simple and I hate to see them made unecessarily complex by misinterpretation."

Amen.

Directive gain according to Terman is distribution in space of radiated power versus the power that would be radiated by an isotropic. Losses are not considered.

Power gain takes loss into account and is the ratio of the power necessary to an isotropic versus the power to a gain antenna required for the same signal strength in the same direction.

Kraus says the directive gain is the ratio of maximum power density to its average value over a sphere as observed in the far field.

Terman and Kraus agree in their calculated examples. The directive gain of an elementary dipole (Kraus says maybe i/10-wavelength) is 1.5. It can be found on page 34 of Kraus` 3rd edition. It`s the same on page 871 of Terman`s 1955 edition.

The directive gain of a 1/2-wavelength dipole is 1.64 for Terman. For Kraus, it`s 1.63 on page 35. These are power ratios, not dB.

Best regards, Richard Harrison, KB5WZI

# 2107. Re: Fishing pole element construction facts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-09 18:05:11 UTC
From: "aunwin@insightbb.com"
Message-ID: <rF7kd.12614$V41.200@attbi_s52>
Source record: 86853

Irv,
I have not been able to dig around yet for my source that was in Missouri
I did however look at E bay and there was one supplier SHALLOR I believe the
name was
that was selling the exact type I was talking about and in a similar price
range
I did send an E mail to him via E Bay with a request for quantity costs and
his actual e mail address but he has yet to
respond which is not really a good sign. I usually enter a search for '
telescopic fishing poles crappie'
so I am sure that over time another vendor will pop up. I will check into my
records later when physically able and will certainly pass it on to you. As
an aside I remember that one particular shipment was marked "shooting star"
but I suspect that names may change by year.
I note that others gave some links but they do not pertain to the fishing
poles that I recomended.
Regards
Art

"Irv Finkleman" <finkirv@shaw.ca> wrote in message
news:418EAFE1.44EB7106@shaw.ca...
> "aunwin@insightbb.com" wrote:
> >
> > They are really called "crappie poles" as they do not have any feed line
> > loops. I will get an E mail for you tomorrow
>
> Thanks Art -- I'll hang on the the e-mail address. The local fishing shops
> have not been able to help me.
>
> Irv
> ---------------------------------------
> Diagnosed Type II Diabetes March 5 2001
> Beating it with diet and exercise!
> 297/215/210 (to be revised lower)
> 58"/43"(!)/44" (already lower too!)
> ---------------------------------------
> Visit my HomePage at http://members.shaw.ca/finkirv/index.html
> Visit my Baby Sofia website at http://members.shaw.ca/finkirv4/index.htm
> Visit my OLDTIMERS website at http://members.shaw.ca/finkirv5/index.htm
> --------------------
> Irv Finkleman,
> Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
> Calgary, Alberta, Canada

## 2108. Re: Facts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-09 18:13:25 UTC
From: richardharrison@webtv.net
Message-ID: <15018-419108C5-696@storefull-3252.bay.webtv.net>
Source record: 86854

Steve Nosko wrote:
"Play with words if U like."

The whole phenomenon is not static. The incident and reflected waves move. It is their interference patterns, the standing waves, which are static.

Cecil wisely called them the rms values. I assumed it understood that the RF (a-c) voltages and currents are expressed as their rms values unless otherwise specified. Everyone should know that a-c is an acronym for alternating current which, of course, alternates,

Best regards, Richard Harrison, KB5WZI

# 2109. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!! _____==___ pemluzov

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-09 18:33:01 UTC
From: Dan/W4NTI <w4nti@get>
Message-ID: <x38kd.10083$Gm6.6184@newsread3.news.atl.earthlink.net>
Source record: 86855
Cross-posted to: rec.pyrotechnics,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc

Oh shut up Troll before you really tick us off and we nuke your sorry arse.

Dan/W4NTI

<Victim_of_American_Stupidity@gafbi.ut.us> wrote in message
news:sqelcyzodllzlnv0xyctlrvh1enzjpk@4ax.com...
> You blithering idiots! You re-elected that imbecile George Bush as your
President.
> He's a complete moron and so are most of you!
> -
> Don't you care what the rest of the world thinks of you? Don't you care
what impact
> American foreign policy has on the rest of the planet? Does Iraq look
like a success
> to anyone? Doesn't it bother you that he's alienated every friend you
have?
> What were you thinking???
> -
> Prior to this, it was American policy and the American government that was
so universally
> hated around the world. Now it's going to be 'Americans' we hate. More
sympathy
> for Bin Laden... More attacks on American institutions... More isolation.
How blind
> can you dumb rednecks in middle-America be, not to see this?
> -
> If you get hit again, or your economy goes into a deep depression, the
American
> people will be getting exactly what they deserve!
> -
> <back turned>
> -
> -
> -
> -
> -
> -
> [Ignore what follows]
> Both departing now, Ron and Aslan expected the lean forests inside
> wide orange. There, Gregory never wanders until Alice irritates the
> sour pen eventually. You won't help me grasping between your
> abysmal corner.
>

> Generally, go burn a case! Her porter was rude, weird, and pours
> outside the autumn.
>
> Let's dream before the shallow navels, but don't promise the
> dull gardners. Gavin! You'll smell cobblers. Sometimes, I'll
> laugh the twig. They are irrigating with inner, behind stupid,
> among cheap puddles. When doesn't Saad recommend strongly? If you will
> improve Mahammed's hair to carpenters, it will surprisingly arrive the
> cat. It should dully cover between hollow hot stars. Hardly any
> unique blunt diets amazingly love as the full sauces tease.
> Never call a tailor! Get your seemingly believing jar over my
> fog.
>
> They are cleaning in back of the moon now, won't kick dogs later.
>
> If you'll judge Sue's desert with pears, it'll furiously excuse the
> ticket.
>
>
>

# 2110. Re: Fishing pole element construction facts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-09 19:01:21 UTC
From: Irv Finkleman <finkirv@shaw.ca>
Message-ID: <4191140F.5996F6F@shaw.ca>
Source record: 86856

"aunwin@insightbb.com" wrote:
>
> Irv,
> I have not been able to dig around yet for my source...

Thanks Art, but the other replies have turned me on to some sources
that I will follow up.

Urv
--
---
Diagnosed Type II Diabetes March 5 2001
Beating it with diet and exercise!
297/215/210 (to be revised lower)
58"/43"(!)/44" (already lower too!)
---
Visit my HomePage at http://members.shaw.ca/finkirv/index.html
Visit my Baby Sofia website at http://members.shaw.ca/finkirv4/index.htm
Visit my OLDTIMERS website at http://members.shaw.ca/finkirv5/index.htm
---
Irv Finkleman,
Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
Calgary, Alberta, Canada

# 2111. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!! _____==___ pemluzov

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-09 19:59:02 UTC
From: Greg Boyd <Pyrofx@citlink.net>
Message-ID: <ak9kd.2958$WR7.1233@news02.roc.ny>
Source record: 86857
Cross-posted to: rec.pyrotechnics,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc

No , I don't care what everyone thinks about us . the fact is , we have a
big stick and will use it . Don't like it ... lead follow or get out of the
way .
G

> Dan/W4NTI
>
> <Victim_of_American_Stupidity@gafbi.ut.us> wrote in message
> news:sqelcyzodllzlnv0xyctlrvh1enzjpk@4ax.com...
> > You blithering idiots! You re-elected that imbecile George Bush as your
> President.
> > He's a complete moron and so are most of you!
> > -
> > Don't you care what the rest of the world thinks of you? Don't you care
> what impact
> > American foreign policy has on the rest of the planet? Does Iraq look
> like a success
> > to anyone? Doesn't it bother you that he's alienated every friend you
> have?
> > What were you thinking???

## 2112. Re: Reflectors For H.F. use

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-09 21:15:41 UTC
From: Dave <noone@nowhere.com>
Message-ID: <T8ednSeB18IbrgzcRVn-tQ@crocker.com>
Source record: 86858

i dont' know if i would really call them 'reflectors'. from the shape and spacing i would think they were more of a vertical ground screen behind the monopoles. kind of like having a dipole mounted above a ground screen, it would provide some directionality outward and shield them from noise from the building inside.

"Crazy George" <muNnscOh@attSglPobaAl.nMet> wrote in message news:41904fa8_2@news1.prserv.net...
> Art:
>
> Here is a URL with a couple of photos of HF antennas with real reflectors. For more, do a search for FRD-10, FLR-9, and
> Wullenweber. Just look at the photos; most of the text is, unfortunately, not very accurate. While I never knew the
> German originators of the design during WW2, I did work with the engineer who developed the US version back in the 50s.
> http://www.mindspring.com/~cummings7/wullen.html
> --
> Crazy George
> Remove N O and S P A M imbedded in return address
>
>

## 2113. Re: Is it worth it? Will I notice?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-09 21:56:44 UTC
From: hrbcrb@aol.com.goaway
Message-ID: <20041109165644.06537.00000335@mb-m15.aol.com>
Source record: 86859

>From: "Richard Fry" rfry@adams.net
>Date: 11/9/04 6:29 AM Pacific Standard Time
>Message-id: <2vc2iqF2ktmrhU1@uni-berlin.de>
>
>> Well, a 6 dB boost would double your range, IF you aren't
>> hitting the limits imposed by your radio horizon.
>_____________
>
>Clarification: the coverage AREA doubles for the above situation, but the
>"range," or distance from the transmit antenna to a given field strength
>value increases only by about 40%.
>
>Here are the numbers, using the FCC's F50,50 curves for UHF NTSC TV
>propagation.
>
>50W ERP from 100 feet above average terrain:
>
> 60dBuV/m at 2.99 miles
> Coverage area within the 60dBuV/m contour = 28 sq miles
>
>200W ERP from 100 feet above average terrain (a 6dB ERP increase from the
>above example):
>
> 66dBuV/m at 2.99 miles
> 60dBuV/m at 4.2 miles
> Coverage area within the 60dBuV/m contour = 55.4 sq miles
>
>The radio horizon for these examples is located about 14 miles from the
>antenna site (at a 0.15 degree depression angle).
>
>RF
>
>Visit http://rfry.org for FM transmission system papers.

I stand by my statement, " 6dB doubles your range". Rather than going to an obscure site and referencing something about some TV coverage - just run the numbers. We are not talking about broadcast to consumer TV sets here. Anyone who has done path analysis knows that 6dB doubles the range. Check into it - you might learn. On second thought here is the equation -
Loss (dB) = 36.6 + 20 log F (MHz) + 20 log D (statue miles). And, again, as first stated, " within the limits of the radio horizon". Off course, space shuttle mobil and EME folks don't worry about the horizon.

KF6HHS
Retired, now life moves at my pace.

please note spam filter

# 2114. Need Info - Vintage Hy-gain 4 Element Tri-band Beam

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-10 02:58:19 UTC
From: news <y4562@comcast.net>
Message-ID: <9eidnQlSPsQsGAzcRVn-gQ@comcast.com>
Source record: 86860

Came across a vintage Hy-gain beam in excellent condition with the four inch diameter black traps. I think this beam is from the late 50's. Need element length and spacing dimensions. Missing the gamma matching sections so will need configuration for the matching the single length driven element. Would be great to get a copy of the assembly and installation instructions.

Any help would be appreciated.

Larry

# 2115. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!! _____==___ pemluzov

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-10 03:58:02 UTC
From: Roger <Delete-Invallid.stuff.groups@tm.net>
Message-ID: <7743p0lphg0ir75gdem7tmbqp2ok9c2uaf@4ax.com>
Source record: 86861
Cross-posted to: rec.pyrotechnics,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc

On Mon, 08 Nov 2004 21:17:32 GMT, "Rich \(aka Old Dog\)"
<Old_dog@atlantic.net> wrote:

>"Roger" <Delete-Invallid.stuff.groups@tm.net> wrote in message
>news:s1gvo018nua26er35t2uvkrs54ov109s0i@4ax.com...
>> On Mon, 8 Nov 2004 08:59:34 -0600, "Smokey" <telegrapher@hotmail.com>
>> wrote:
>>
>> >Correction...
>> >
>> >50% of the population did not re-elect him. Only 21% of the population did.
>> >79% of the American population is innocent.
>>
>> Actually they didn't vote and the word to describe them is apathetic.
>
>Maybe the word to describe them is "disgusted" that there were no good choices
>offered...
>

Now that is certainly a valid point.
There have been some good columns in the Orlando Sentinel this past
week on that subject.

Roger

>-Rich
>

# 2116. Re: Need Info - Vintage Hy-gain 4 Element Tri-band Beam

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-10 04:15:25 UTC
From: Crazy George <muNnscOh@attSglPobaAl.nMet>
Message-ID: <4191985f_4@news1.prserv.net>
Source record: 86862

Larry:

I bought one of those when they first appeared, and put it up. The traps lasted only a few months, before they sucked
water and detuned. I am still using that antenna with the replacement solid traps they provided as warranty
replacement. I'll bet Leo really lost big time on that first design.

Unfortunately, I cannot find either the original instructions, nor the later dimensions which came with the replacement
traps, but bottom line is that those black traps were a problem waiting to happen.

--
Crazy George
Remove N O and S P A M imbedded in return address
"news" <y4562@comcast.net> wrote in message news:9eidnQlSPsQsGAzcRVn-gQ@comcast.com...
> Came across a vintage Hy-gain beam in excellent condition with the four inch
> diameter black traps. I think this beam is from the late 50's. Need
> element length and spacing dimensions. Missing the gamma matching sections
> so will need configuration for the matching the single length driven
> element. Would be great to get a copy of the assembly and installation
> instructions.
>
> Any help would be appreciated.
>
> Larry
>
>

# 2117. Re: Facts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-10 04:48:39 UTC
From: Frank <ve6cb@NOSPAM.telus.net>
Message-ID: <H4hkd.141267$9b.112169@edtnps84>
Source record: 86863

Modeled #14 AWG, copper conductor, 32ft monopole, 29 radials of 25ft, and
base 6" above (nominal lambda/1000) Sommerfeld/Norton ground of Er = 13,
sigma = 0.013 S/m at 1.8 MHz. All segments 6".

NEC2 computes:
Zin = 2.87 - j1358 Efficiency 92%

RADIALS2 computes (with radials 1mm below ground):
Zin = 1.55 - j1310 Efficiency 23.5%

Not a large amount of difference, but thought I had gotten closer results
with a different monopole, but seem to have deleted the code (Not sure why
such a large difference in efficiency). NEC2 is supposed to provide a
reasonable approximation of a buried radial monopole when at about
lambda/1000 above ground. Be interested in any comments, and what NEC4
provides if anybody has it.

73,

Frank

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:10p1fcjlf1kc36f@corp.supernews.com...
> Reg Edwards wrote:
>>
>> The only program I am reasonably familiar with is the several years old
>> free
>> EZNEC. I don't know whether it has been updated or not and I make very
>> little use of it. Come to think of it, I don't make much use of my own
>> programs either.
>>
>> Regarding shallow buried radials in conjunction with a vertical, have you
>> tried my recent program RADIALS2 ?
>>
>> It is intended to demonstrate performance of the radials themselves in a
>> given ground rather than antenna performance. Which I suspect is the
>> reverse
>> of NEC-4.
>>
>> As you probably know, the effects of above-ground radials change very
>> rapidly as they get within a few inches of the ground surface. But once
>> in
>> the ground they tend to remain static.
>>
>> RADIALS2 uses an entirely different, unconventional form of performance
>> analysis. If other programs don't take soil permittivity into account at

>> HF,
>> predictions must lose accuracy. Are the inputs and outputs of NEC-4 in a
>> form suitable for a direct comparison with my simple program?
>
> Yes. I made a few comparisons long ago, shortly after you introduced your
> program, and found major disagreement. NEC-4 approximately agrees with the
> measurements made long ago by Brown, Lewis, and Epstein (whom I know
> you've never heard of), once you make reasonable assumptions of ground
> conductivity and dielectric constant. Your program gives very different
> answers. At the time, I concluded that there's considerable coupling
> between radials, which your program doesn't seem to account for.
> Interested readers should look in the google archives for postings in this
> group on the thread "Ground Radials" in July 1998 and "Evaluation of G4FGQ
> Freeware Antenna Software" in September 1998.
>
>>
>> But in view of the large uncertainties involving ground conditions,
>> accuracy
>> is not worth making much of a song and dance about.
>
> True, but in the past, you've used the results from your program to reach
> conclusions about radial systems that I didn't, and don't, believe to be
> valid. (See the threads mentioned above.) I don't think it's wise to draw
> conclusions from a program that gives results which are demonstrably very
> different from the only measurements regarded to be reasonably well made.
>
> Roy Lewallen, W7EL
>

# 2118. Re: DOUBLE RESONANCE IN DIPOLE...THE CAUSE?????

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-10 05:40:55 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <VQhkd.2278$jE2.587@bignews4.bellsouth.net>
Source record: 86864

"Dr. Slick" <radio913@aol.com> wrote in message
news:1d15af91.0411081713.61e9a2d8@posting.google.com...
> Hi,
>
> I recently tuned up a VHF dipole, and i got
> a double-dip, double resonance for the swr, and
> also the minimum swr was around 1.3:1
> but i wanted to
> see if any of you seasoned antenna boys could
> guess what the problem was.

twarnt no problem - if the dipole was 'clean' the double-dip may be due to
how close you were to it, the coax length, a nearby object, - your presence
near the antenna, the way you held your mouth while taking the measurements,
the measurement methods themselves, a passing cloaked Klingon bird of prey,
an ionized whif of exhaled air, or something none of us have ever seen.
(many causes - most just accept it is as - in Walter Cronkite's words
"That's the way it is.")

---
Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.788 / Virus Database: 533 - Release Date: 11/1/2004

# 2119. Re: Reflectors For H.F. use

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-10 05:48:55 UTC
From: richardharrison@webtv.net
Message-ID: <4171-4191ABC7-782@storefull-3253.bay.webtv.net>
Source record: 86865

Art Unwin wrote:
"So how does one "create" several conductive surfaces of what ever
length on a continuous electrical surface?"

First examine the ways it has already been done and ask why? A non-resonant reflector provides a much wider bandwidth than a resonant reflector as used in an array like a yagi, for one thing.

Plenty of grid-dish, corner-reflector and similar non-resonant reflector antennas are in use to reduce wind-loading. You have no need at lower frequencies to use solid reflectors. Surface irregularities are not much problem. The solid dishes at 2-GHz are built that way for convenience, not because they need to be. The same is true at lower frequencies. At higher frequencies, the conductors are so close together, there isn`t enough reduction in wind-loading to be worth the construction effort required with grid-reflectors.

Grid reflectors only need a collection of conductors parallel with the radiating element(s) illuminating (driving) the antenna, and placed for best results. Reflecting elemants in a grid reflector placed perpendicular to the driven element don`t work. Curvature is used tn dish reflector bars for focus. An angle is used in the corner-reflector for more gain than a flat reflector. None of the reflectors needs cross-connections between the reflector bars anymore than ground radials need their far-ends interconnected. Such connections allow eddy currents which only cause loss. The only current of value is that in the direction of the ground radials or in the direction of the reflector`s parallel conductors, as the case may be. So the eddy currents are bad.

Spacing between reflector bars is related to wavelength and capture area.. Measure it in a good grid antenna and scale to your frequency. Or, see Kraus for capture area etc.

Best regards, Richard Harrison, KB5WZI

## 2120. Re: 32 ft end tuned vertical or??

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-10 08:58:46 UTC
From: nick smith <NickS@ntlworld.com>
Message-ID: <aLkkd.128$OG.53@newsfe6-gui.ntli.net>
Source record: 86866

This is roughly what I have - a 40 foot vertical from about a foot above the ground and a few radials mainly buried ranging in length from about 10 feet to about 100 feet, three four foot ground rods about a foot apart, and, in the gap between the bottom of the pole and where all the radials come together..... a SGC 230 Smartuner.. which all works rather well !

Nick

# 2121. Re: 32 ft end tuned vertical or??

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-10 12:36:05 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <2vegevF2j815hU1@uni-berlin.de>
Source record: 86867

I am pleased to hear it, for this is similar to what I have in mind, although I will have a Radio Ham's manually-operated ATU rather than the CBer's Auto ATU that you describe.(Perhaps this will be the final arbiter as to who is a Radio Ham and who is merely a CBer-in-disguise?)

"nick smith" <NickS@ntlworld.com> wrote in message news:aLkkd.128$OG.53@newsfe6-gui.ntli.net...
> This is roughly what I have - a 40 foot vertical from about a foot above the
> ground and a few radials mainly buried ranging in length from about 10 feet to
> about 100 feet, three four foot ground rods about a foot apart, and, in the gap
> between the bottom of the pole and where all the radials come together..... a
> SGC 230 Smartuner.. which all works rather well !

# 2122. Re: Facts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-10 12:46:17 UTC
From: Frank <ve6cb@NOSPAM.telus.net>
Message-ID: <t4okd.90482$VA5.33610@clgrps13>
Source record: 86868

"Frank" <ve6cb@NOSPAM.telus.net> wrote in message
news:H4hkd.141267$9b.112169@edtnps84...
> Modeled #14 AWG, copper conductor, 32ft monopole, 29 radials of 25ft, and
> base 6" above (nominal lambda/1000) Sommerfeld/Norton ground of Er = 13,
> sigma = 0.013 S/m at 1.8 MHz. All segments 6".
>
> NEC2 computes:
> Zin = 2.87 - j1358 Efficiency 92%
>
> RADIALS2 computes (with radials 1mm below ground):
> Zin = 1.55 - j1310 Efficiency 23.5%
>
> Not a large amount of difference, but thought I had gotten closer results
> with a different monopole, but seem to have deleted the code (Not sure why
> such a large difference in efficiency). NEC2 is supposed to provide a
> reasonable approximation of a buried radial monopole when at about
> lambda/1000 above ground. Be interested in any comments, and what NEC4
> provides if anybody has it.
>
> 73,

Of course the higher efficiency is due to NEC calculating only the I^2R
losses, and not the TRP. TRP should be fairly easy to calculate since the
pattern is "phi" independent. Have not checked to see if there is a TRP
card.
Note that a 32 ft monopole mounted on a perfect ground has an input
impedance of 1.58 - j1311 Ohms. The efficiency is reduced to 86% due to
increased I^2R losses.

Frank

# 2123. Re: Is it worth it? Will I notice?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-10 14:20:11 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <2vemcbF2jmqtgU1@uni-berlin.de>
Source record: 86869

"KF6HHS" <hrbcrb@aol.com.goaway> wrote:
> I stand by my statement, " 6dB doubles your range...
> Anyone who has done path analysis knows that
> 6dB doubles the range. Check into it - you might learn.

----------

I've checked, thanks.

The field strength values I posted are based on empirical data used by the FCC to determine coverage range, and protection ratios for FM & TV broadcast stations. The same physics applies to "hams" as to broadcasters.

The free-space path loss formula over a reflection-free path gives different results. But, as the original post asks " Is it worth it? Will I notice?," the real-world values from the FCC curves will give more applicable answers.

Verify my numbers and conclusions for yourself at http://www.fcc.gov/mb/audio/includes/curves.html .

You might learn <g>.

RF

# 2124. Re: Opinions on 4NEC2 and 4NEC2X?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-10 15:48:16 UTC
From: 4nec2@gmx.net
Message-ID: <ee90361b.0411100748.4326a399@posting.google.com>
Source record: 86870

"Jim" <IHateSpam@NoSpam.net> wrote in message
news:<Q9thd.2303$TV1.2168@fe39.usenetserver.com>...
> What does everyone think of these?

See http://www.si-list.org/swindex2.html

Arie.

# 2125. Re: Reflectors For H.F. use

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-10 16:45:36 UTC
From: richardharrison@webtv.net
Message-ID: <11787-419245B0-53@storefull-3255.bay.webtv.net>
Source record: 86722

Crazy George`s information on the Wullenweber is great. I have no information on this monster but a pair of loops or Adcock directional antennas can be mounted perpendicularly and their outputs can be connected with a goniometer to provide the effect of rotating the directional antenna while the array remains unmoved in place. Terman shows how on page 1051 of his 1955 edition. Could our military be extravagant with taxpayer money?

Best regards, Richard Harrison, KB5WZI

# 2126. Re: Reflectors For H.F. use

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-10 18:07:57 UTC
From: fractenna@aol.com
Message-ID: <20041110130757.06270.00000164@mb-m23.aol.com>
Source record: 86723

>Terman
>shows how on page 1051 of his 1955 edition.

Not in 1947 edition:-(

73,
Chip N1IR

# 2127. Re: DOUBLE RESONANCE IN DIPOLE...THE CAUSE?????

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-10 19:40:16 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <nbr4p0daj7pu92rrvikvovr1sjf3ph7amj@4ax.com>
Source record: 86724

On 10 Nov 2004 11:36:02 -0800, radio913@aol.com (Dr. Slick) wrote:
>Richard Clark <kb7qhc@comcast.net> wrote in message
news:<e2uqo09mvpgh4uuoahb37u1jgq4ujpsoj5@4ax.com>...
>> On 8 Nov 2004 17:13:32 -0800, radio913@aol.com (Dr. Slick) wrote:
>> >guess what the problem was.
>> Why do you think it was a problem?
> A double dip is a bad sign, and your
>return loss is not optimum.

What makes a double dip a bad sign? Most antennas have many.
What does any dip have to do with non-optimal return loss? By
definition a dip in SWR indicates better return loss.

73's
Richard Clark, KB7QHC

# 2128. Re: DOUBLE RESONANCE IN DIPOLE...THE CAUSE?????

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-10 20:02:03 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <kns4p09eh2f7ev97h6d8j0g7cheooohu2n@4ax.com>
Source record: 86725

On 10 Nov 2004 11:42:21 -0800, radio913@aol.com (Dr. Slick) wrote:

> I didn't need a choke with this one = the other factor

## 2129. Re: Opinions on 4NEC2 and 4NEC2X?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-10 20:02:32 UTC
From: Jim <IHateSpam@NoSpam.net>
Message-ID: <evukd.8034$UH3.818@fe61.usenetserver.com>
Source record: 86726

I didn't ask where to get a copy, but what everyone thought of it.

Jim
N8EE
<4nec2@gmx.net> wrote in message
news:ee90361b.0411100748.4326a399@posting.google.com...
> "Jim" <IHateSpam@NoSpam.net> wrote in message
> news:<Q9thd.2303$TV1.2168@fe39.usenetserver.com>...
>> What does everyone think of these?
>
> See http://www.si-list.org/swindex2.html
>
> Arie.

# 2130. Re: Reflectors For H.F. use

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-10 20:10:15 UTC
From: richardharrison@webtv.net
Message-ID: <10062-419275A7-10@storefull-3252.bay.webtv.net>
Source record: 86727

Chip, N1IR wrote:
"Not in 1947 edition (sad face)."

Too bad. Authors neeed new additions to new editions so owners will upgrade.

Terman`s topic "Goniometer" starts on page 1050 of his 1955 edition. His illustration is Fig. 26-29: "Crossed loop antennas connected to goniometer."

Each loop`s feedline is connected to a fixed goniometer coil and these are crossed at right angles. A rotating pickup coil is mounted inside the fixed coils and shares their axis. The output to the radio is taken from the goniometer`s rotating coil. Terman writes:
"Thus the rotation of the goniometer secondary is equivalent electrically to rotating the loop (or Adcock) antenna."

In 1960, the chief of our Argentine oil exploration and production called me into his office on Tierra del Fuego to ask me if Dr. Maldonado, our physician, and not Alec Eussler, our atomic physicist (aka radio technician) should be ordering the goniometer.
Our chief, George Blackwell thought the goniometer was diagnostic equipment for a social disease.

Best regards, Richard Harrison, KB5WZI

# 2131. Re: DOUBLE RESONANCE IN DIPOLE...THE CAUSE?????

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-10 21:47:48 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41928aba$1_3@127.0.0.1>
Source record: 86728

Dr. Slick wrote:
> A properly tuned and positioned dipole will
> be resonant at only one frequency. Double-dips
> are a bad sign, and the return loss suffers.

If something is wrong with a dip on 40m and a dip on 15m,
someone should warn all the hams who are using their 40m
dipoles on 15m. :-)
--
73, Cecil, W5DXP

# 2132. Re: DOUBLE RESONANCE IN DIPOLE...THE CAUSE?????

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-10 22:05:27 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41928edf$1_4@127.0.0.1>
Source record: 86729

Cecil Moore wrote:

> Dr. Slick wrote:
>> A properly tuned and positioned dipole will
>> be resonant at only one frequency. Double-dips
>> are a bad sign, and the return loss suffers.
>
> If something is wrong with a dip on 40m and a dip on 15m,
> someone should warn all the hams who are using their 40m
> dipoles on 15m. :-)

Forgot to add that dipoles are resonant near all odd
half-wavelengths, i.e. 0.5WL, 1.5WL, 2.5WL, 3.5WL, ...
They are also antiresonant (purely resistive) on all
integral wavelengths, 1.0, 2.0, 3.0, ...

Using a Smith Chart, if one plots the feedpoint impedances
of a dipole VS frequency and connects the dots, that locus
of points will describe a (very rough) spiral. (Traversing
once around that rough spiral from resonance to resonance
is one full wavelength, not 1/2 wavelength.)
--
73, Cecil, W5DXP

## 2133. Re: cloverleaf anenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-11 01:04:17 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <4192b8a2$1_2@127.0.0.1>
Source record: 86730

Stefan Bï¿½rbaum wrote:
> In a antenna lexicon I found something about a cloverleaf antenna from
> Phillip H. Smith. I found only Pics from this type in use (or out of order)
> for BC stations.

I'm not aware of any vertical antennas with cloverleaf patterns
so I am going to assume it is a horizontal antenna (as used for
BC shortwave).

A horizontal dipole longer than 1.25WL tends to have a multi-lobed
radiation pattern, at one point, resembling a cloverleaf. Such a pattern
is pretty much four-lobed when the dipole is about 1.6WL. At shorter
wavelengths than that, it exhibits more than four lobes and at high
multiples of the 1/2WL resonant frequency, becomes essentially an
end-fire antenna.
--
73, Cecil, W5DXP

# 2134. Re: cloverleaf anenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-11 01:38:15 UTC
From: richardharrison@webtv.net
Message-ID: <11787-4192C287-113@storefull-3255.bay.webtv.net>
Source record: 86731

Stefan Burbaum wrote:
"Can anyone tell me more about this type?"

John D. Kraus, W8JK says about the Cloverleaf Antenna for FM Broadcasting on page 429 of his 1950 edition of "Antennas": "One method of simulating the uniform loop is illustrated in Fig. 14-38b. Here four smaller loops are connected in parallel across a coaxial line. This arrangement is called a "cloverleaf" antenna. (P.H. Smith, Cloverleaf Antenna for FM Broadcasting, Proc. I.R.E.,35, 1556-1563, December 1947)."

Best regards, Richard Harrison, KB5WZI

## 2135. Re: cloverleaf anenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-11 01:47:58 UTC
From: richardharrison@webtv.net
Message-ID: <11787-4192C4CE-114@storefull-3255.bay.webtv.net>
Source record: 86732

Kraus retained his "Cloverleaf Antenna" story in his new 3rd edition. It is found on page 726. Almost identical to the 1950 story.

Best regards, Richard Harrison, KB5WZI

# 2136. Re: DOUBLE RESONANCE IN DIPOLE...THE CAUSE?????

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-11 02:23:59 UTC
From: Irv Finkleman <finkirv@shaw.ca>
Message-ID: <4192CD50.96DADF99@shaw.ca>
Source record: 86733

Cecil Moore wrote:
>
> Cecil Moore wrote:
>
> > Dr. Slick wrote:
> >> A properly tuned and positioned dipole will
> >> be resonant at only one frequency. Double-dips
> >> are a bad sign, and the return loss suffers.
> > >
> > > If something is wrong with a dip on 40m and a dip on 15m,
> > > someone should warn all the hams who are using their 40m
> > > dipoles on 15m. :-)
>
> Forgot to add that dipoles are resonant near all odd
> half-wavelengths, i.e. 0.5WL, 1.5WL, 2.5WL, 3.5WL, ...
> They are also antiresonant (purely resistive) on all
> integral wavelengths, 1.0, 2.0, 3.0, ...
>
> Using a Smith Chart, if one plots the feedpoint impedances
> of a dipole VS frequency and connects the dots, that locus
> of points will describe a (very rough) spiral. (Traversing
> once around that rough spiral from resonance to resonance
> is one full wavelength, not 1/2 wavelength.)
> --
> 73, Cecil, W5DXP

Explaining an antenna concept so simple to Dr. Slick after
the statement that he made seems to me akin to reading Shakespeare
to a cow.

Irv VE6BP
--
---
Diagnosed Type II Diabetes March 5 2001
Beating it with diet and exercise!
297/215/210 (to be revised lower)
58"/43"(!)/44" (already lower too!)
---
Visit my HomePage at http://members.shaw.ca/finkirv/index.html
Visit my Baby Sofia website at http://members.shaw.ca/finkirv4/index.htm
Visit my OLDTIMERS website at http://members.shaw.ca/finkirv5/index.htm
---
Irv Finkleman,
Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
Calgary, Alberta, Canada

# 2137. Re: Is it worth it? Will I notice?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-11 02:50:31 UTC
From: richardharrison@webtv.net
Message-ID: <27642-4192D377-158@storefull-3253.bay.webtv.net>
Source record: 86734

KF6HHS wrote:
"I stand by my statement: 6 dB doubles your range."

The "Sommerfeld formula" is ancient and accepted. It says:
Ground-wave field strength = (A) Eo / d
Eo = field strength at the surface of the earth at a unit distance from the transmitting antenna, neglecting earth`s losses
d = distance to the transmitting antenna
A = factor taking into account ground losses

If the earth is perfect, the above reduces to:
volts/meter = Eo / d
assuming the right scale factors.

At twice the distance, the field strength over flat earth is halved.

The resulting current is also halved. Thus, the power, their product, is quartered. That`s a 6dB change from doubling the distance.

On the other hand, if you want to produce the same field strength at twice the distance, you must use 4X the power by the Sommerfeld formula.

Best regards, Richard Harrison, KB5WZI

# 2138. Re: DOUBLE RESONANCE IN DIPOLE...THE CAUSE?????

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-11 03:42:38 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <4192ddb0$1_1@127.0.0.1>
Source record: 86735

Irv Finkleman wrote:
> Explaining an antenna concept so simple to Dr. Slick after
> the statement that he made seems to me akin to reading Shakespeare
> to a cow.

Awwwwhhhhhh Irv, everyone has a senior moment now and then.
--
73, Cecil, W5DXP

## 2139. Re: cloverleaf anenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-11 03:44:43 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <4192de2e$1_1@127.0.0.1>
Source record: 86736

Richard Harrison wrote:
> Kraus retained his "Cloverleaf Antenna" story in his new 3rd edition. It
> is found on page 726. Almost identical to the 1950 story.

Darn, I should have looked in the index of my Kraus book before
I replied in ignorance.
--
73, Cecil, W5DXP

# 2140. MINI PRODUCTS BEAM..

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-11 04:15:06 UTC
From: Skyler King <SkyKing310b@optonline.net>
Message-ID: <4192E761.FDB4DB98@optonline.net>
Source record: 86737

Anyone remember the Mini-Products beam for HF??
A friend had one about 25 years ago and I remember
it worked pretty well for such a small antenna.
Any clues to find one??

73

# 2141. Re: DOUBLE RESONANCE IN DIPOLE...THE CAUSE?????

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-11 04:17:36 UTC
From: radio913@aol.com
Message-ID: <1d15af91.0411102017.1e4b1a1b@posting.google.com>
Source record: 86697

Richard Clark <kb7qhc@comcast.net> wrote in message
news:<kns4p09eh2f7ev97h6d8j0g7cheooohu2n@4ax.com>...
> On 10 Nov 2004 11:42:21 -0800, radio913@aol.com (Dr. Slick) wrote:
>
> > I didn't need a choke with this one = the other factor

Incorrect. I simply didn't need it for this dipole.

Anyone else?

S.

# 2142. Re: DOUBLE RESONANCE IN DIPOLE...THE CAUSE?????

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-11 04:39:43 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <f0q5p0t13teb13k7eqammh4qbp013j4ten@4ax.com>
Source record: 86738

On 10 Nov 2004 20:16:40 -0800, radio913@aol.com (Dr. Slick) wrote:

> A double dip in a very narrow band, like 88-108 MHz
>for example, is a real indication of something wrong.
>It has always meant that the maximum return loss suffers.

Well, for openers, and by your own description of a "garden variety dipole," you don't have the prospects of anything but a narrower band than 88-108 MHz (even if you opt to match directly to 73 Ohms). A "garden variety dipole" centered in this band will only match 73 Ohms from 89.5-99 MHz - it will only match 50 Ohms from 90.5-97 MHz.

As for "double dipping" none of your posts to date have any facts to test your complaint. If we are to assume these two dips occur within the same band, that is actually to your benefit as it could only enlarge the matching prospects. However, your paucity of details leaves this as speculation on both sides. If the two dips occur within and without the band, then you have offered nothing to distinguish this from the natural order of things. Simply put, ALL dipoles have many dips throughout the spectrum. In this regard there is nothing special about your "double resonance."

As for the disparaging comment of "maximum return loss suffers," that too is in conflict with expectation. There is nothing inherently sufferable about having more than your share of "dips." Additional resonances does not detract from any other resonance's capacity to perform within its region of match. A second resonance doesn't necessarily rob another and it could be argued that it is actually a boon if you wish to enlarge the bandwidth of an antenna (which by your only specification of 88-108 would be a positive feature).

Now, as to HOW you could achieve TWO SWR dips within the FM broadcast band with a "garden variety dipole," then that is revealed by your comments about not needing (and by inference not having) your driveline choked. Simply put, it sounds distinctly like your transmission line length (combined with velocity factor) added a resonant circuit in parallel with the dipole to offer this second dip. You munged things around with the antenna, but changed lines and the second dip went away (as a function of a different line length, or its becoming balanced or choked). You would have to have stumbled onto an unique antenna design to have forced these two dips into this FM band and this is negated by your own description of a "garden variety dipole." On the other hand, transmission line common modality is as common as rain in Seattle.

73's
Richard Clark, KB7QHC

# 2143. Re: Is it worth it? Will I notice?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-11 04:50:24 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <9br5p057qe0mlj2cv9crrb5vokafa2mdeb@4ax.com>
Source record: 86739

On Wed, 10 Nov 2004 20:50:31 -0600, richardharrison@webtv.net (Richard Harrison) wrote:

>That`s a 6dB change from doubling the distance.

Hi Richard,

Unfortunately, from FCC field data for BOTH AM and FM curves over real earth, they show anywhere from 6dB to 20dB+ depending on range from the transmitter. In most respects departure has to do with earth curvature and earth soil conditions. Even sea water paths do not recover the greater than 6dB requirements.

73's
Richard Clark, KB7QHC

# 2144. Re: DOUBLE RESONANCE IN DIPOLE...THE CAUSE?????

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-11 04:56:45 UTC
From: Irv Finkleman <finkirv@shaw.ca>
Message-ID: <4192F11E.45EDB36A@shaw.ca>
Source record: 86740

Cecil Moore wrote:
>
> Irv Finkleman wrote:
> > Explaining an antenna concept so simple to Dr. Slick after
> > the statement that he made seems to me akin to reading Shakespeare
> > to a cow.
>
> Awwwwhhhhhh Irv, everyone has a senior moment now and then.
> --
> 73, Cecil, W5DXP

The devil made me do it. Aside from senior moments I also have
second childhood flashbacks!

Irv
--
---
Diagnosed Type II Diabetes March 5 2001
Beating it with diet and exercise!
297/215/210 (to be revised lower)
58"/43"(!)/44" (already lower too!)
---
Visit my HomePage at http://members.shaw.ca/finkirv/index.html
Visit my Baby Sofia website at http://members.shaw.ca/finkirv4/index.htm
Visit my OLDTIMERS website at http://members.shaw.ca/finkirv5/index.htm
---
Irv Finkleman,
Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
Calgary, Alberta, Canada

# 2145. Re: DOUBLE RESONANCE IN DIPOLE...THE CAUSE?????

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-11 05:33:17 UTC
From: richardharrison@webtv.net
Message-ID: <19618-4192F99D-148@storefull-3258.bay.webtv.net>
Source record: 86741

Cecil, W5DXP wrote:
"Awwwwhhhhhh Irv, everyone has a senior moment now and then."

That`s my experience.

Arnold B. Bailey in "TV and Other Receiving Antennas" is more thorough than most. Bailey writes on page 291:
"We have already seen that such conditions (efficient operation) can exist for many resonant lengths of the rod. The rod if divided into two sections and connected to a load at its center, will exhibit resonance when the total length of the rod is any multiple of one half-wave. ----only two resonant lengths will give a simple directivity pattern --- if the rod operates at its fourth resonant frequency, no signal is picked up from directions broadside to the antenna in contrast to operation at its third, second, or first resonance. Only at first resonance is the directivity pattern as indicated by Figs. 6-20 and 6-21.

At all other resonances above the first, the pattern is going through a progressive change which will later be more explicitly shown in a quantitative manner."

On page 348, Bailey gives radiation resistances and drivepoint resistances for dipole resonances 1 through 10, and shows their current distribution patterns.

Best regards, Richard Harrison, KB5WZI

# 2146. Re: DOUBLE RESONANCE IN DIPOLE...THE CAUSE?????

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-11 06:00:37 UTC
From: richardharrison@webtv.net
Message-ID: <28971-41930005-177@storefull-3256.bay.webtv.net>
Source record: 86742

Dr. Slick wrote:
"I`ll give you the harmonics, but a double-dip at for example, 88.1 and 93.7 MHz would indicate a BIG problem!"

Does the dipper dip on one of these frequencies in te absence of an antenna?

Is the receiver connected to the antenna, and can you move one of the dips with the receiver tuning?

Does augmenting the antenna cable move one or both dips?

Does relocating the antenna change the dips?

There seem to be two coupled resonant circuits.

Best regards, Richard Harrison, KB5WZI

# 2147. Re: Is it worth it? Will I notice?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-11 06:21:39 UTC
From: richardharrison@webtv.net
Message-ID: <28973-419304F3-17@storefull-3256.bay.webtv.net>
Source record: 86743

Richard Clark is correct. The FCC family of propagation curves shows greater attenuation than results from signal spreading into an ever enlarging volume. However, these curves also include an inverse distance line which is the 6 dB per doubled distance line. Its drop, make that decline, only derives from the growth in volume the fixed amount of expanding signal fills as it propagates.

Best regards, Richard Harrison, KB5WZI

## 2148. Re: Announcing SmartSmith version 1.5.3

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-11 09:14:58 UTC
From: oh5rm <oh5rm@luukku.com>
Message-ID: <cmvaii$b5e$1@phys-news1.kolumbus.fi>
Source record: 86744

"Robert Lay W9DMK" <w9dmk@crosslink.net> wrote in message
news:4190cb2a.2581031@news.crosslink.net...
> SmartSmith version 1.5.3 - now available at
> http://www.qsl.net/w9dmk

Thanks for fine antenna sw.
The names of the download files still refer to the older version 1.4, a bit
confusing.
73 oh5rm

# 2149. Re: cloverleaf anenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-11 10:41:02 UTC
From: Mark <bigfathhairybiker@MAILhot.com>
Message-ID: <419340a1$0$1558$ed9e5944@reading.news.pipex.net>
Source record: 86745

"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:4192b8a2$1_2@127.0.0.1...
> Stefan B�rbaum wrote:
> > In a antenna lexicon I found something about a cloverleaf antenna from
> > Phillip H. Smith. I found only Pics from this type in use (or out of
order)
> > for BC stations.
>

I've made and used a cloverleaf antenna for 2m in a RSGB 2m Trophy contest.

Used two of them stacked for extra gain.

Results were very good and allowed up complete coverage of the UK.

## 2150. Re: cloverleaf anenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-11 11:05:08 UTC
From: KC1DI <elbc2@pivot.net>
Message-ID: <41934515_5@127.0.0.1>
Source record: 86746

Cecil Moore wrote:
> Stefan Bï¿½rbaum wrote:
>
>> In a antenna lexicon I found something about a cloverleaf antenna from
>> Phillip H. Smith. I found only Pics from this type in use (or out of
>> order)
>
> > for BC stations.
>
> I'm not aware of any vertical antennas with cloverleaf patterns
> so I am going to assume it is a horizontal antenna (as used for
> BC shortwave).
>
> A horizontal dipole longer than 1.25WL tends to have a multi-lobed
> radiation pattern, at one point, resembling a cloverleaf. Such a pattern
> is pretty much four-lobed when the dipole is about 1.6WL. At shorter
> wavelengths than that, it exhibits more than four lobes and at high
> multiples of the 1/2WL resonant frequency, becomes essentially an
> end-fire antenna.
> --
> 73, Cecil, W5DXP

I Remember back in early 60's a number of hams in my home town built
clover leaf antennas for 2 & 6 meters.. if my memory serves me right
they were horizontally mounted and worked quite well for 2 & 6 Mtr AM
in those days .. I used one as a novice for 2 mtrs. Novices had 2m AM
priviledges back then. But I had nothing to compare it to so can't say
it was better or worse tnan any other 2m antenna. Also if memory serves
me right it was mad up of 3 heart shaped full wave loops condected in
paralell and fed with a single coaxial line.

73 Dave Kc1di

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

# 2151. Re: MINI PRODUCTS BEAM..

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-11 12:57:27 UTC
From: w9gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <WkJkd.28692$5K2.784@attbi_s03>
Source record: 86747

"Skyler King" <SkyKing310b@optonline.net> wrote in message
news:4192E761.FDB4DB98@optonline.net...
> Anyone remember the Mini-Products beam for HF??
> A friend had one about 25 years ago and I remember
> it worked pretty well for such a small antenna.
> Any clues to find one??
>
> 73
>

Mini-Products located in the Erie, PA made a series of hybrid Quad antennas.
T.G.M. Communications (Canada) has taken over production and support of
these antennas.
Here is their web page:
http://www3.sympatico.ca/tgmc/

121 DEVON ST.
STRATFORD,ONT.
CANADA
N5A 2Z8
PHONE: 519-271-5928
FAX: 519-271-5928
EMAIL: TGMC@ SYMPATICO.CA

# 2152. Re: Opinions on 4NEC2 and 4NEC2X?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-11 13:41:59 UTC
From: 4nec2@gmx.net
Message-ID: <ee90361b.0411110541.269b12b5@posting.google.com>
Source record: 86698

"Jim" <IHateSpam@NoSpam.net> wrote in message
news:<evukd.8034$UH3.818@fe61.usenetserver.com>...
> I didn't ask where to get a copy, but what everyone thought of it.

Yes, I know, but I am afraid I am not an impartial 'everyone'.

If you can make your question more specific, I could try to give some answers.

Arie.

# 2153. Re: MINI PRODUCTS BEAM..

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-11 14:14:27 UTC
From: Keyboard In The Wilderness <Key@Kennel.net>
Message-ID: <7tKkd.129530$hj.29813@fed1read07>
Source record: 86748

If you mean the Hybrid Quad,
see T.G.M. Communications -- URL:
http://www3.sympatico.ca/tgmc/

--
The Anon Keyboard
I doubt, therefore I might be

"Skyler King" <SkyKing310b@optonline.net> wrote in message
news:4192E761.FDB4DB98@optonline.net...
> Anyone remember the Mini-Products beam for HF??
> A friend had one about 25 years ago and I remember
> it worked pretty well for such a small antenna.
> Any clues to find one??
>
> 73
>

# 2154. Re: EM field og GSM and microwave oven in V/m ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-11 14:47:27 UTC
From: Thierry <->
Message-ID: <41937b83$1@news.vo.lu>
Source record: 86749

"Tom" <noname@noprovider.nodomain> wrote in message
news:v1Ujd.306$iY3.184@trnddc01...
> The NTIA measured a series of microwave ovens as part of interference
> testing for 802.11.
>
> Here's a link to the main page
> http://www.its.bldrdoc.gov/pub/ntia-rpt/94-303-1/
>
> And a link to the measurement results
> http://www.its.bldrdoc.gov/pub/ntia-rpt/94-303-1/chap5.pdf
>
> Summary of the summary:
>
> Worst-case emissions were near 2450 MHz. Ovens averaged about
> +113 dBuV/m, the worst case one was about +128 dBuV/m measured at 3
> meters.
>
> dBuV/m is dB relative to a microvolt per meter.
>
> Hopefully I'm not hosed up here, I think +120 dBuV/m is the same as 1
v/m.
>
> That would make these ovens E-fields about -7 dBv/m to +8 dBv/m, or
about
> 0.45 v/m (mean) up to about 2.5 v/m worst case).
>

Many thanks Tom.
In addition there are some useful informaiton here also:

What are EMF, http://www.lessemf.com/emf-news.html
WHO about EM, http://www.who.int/peh-emf/about/WhatisEMF/en/index4.html
Bluetooth and EM with some tables,
http://3c.nii.org.tw/3c/silicon/Hot/HealthConcerns.pdf

Thierry, ON4SKY
http://www.astrosurf.com/lombry

> -- Tom
>
>
>
>
>
>

> "Thierry" <-> wrote in message news:419001ed$1@news.vo.lu...
> > Hi,
> >
> > I haven't find a better ham newsgroup for this question... so sorry if
it
> > is
> > s bit off subject.
> >
> > I read somewhere that a GSM 900 MHz produced at electromagentic field of
> > 50V/m (!!) placed at the ear, a 900/1800 Mhe up to 70V/m and a microwave
> > oven working at 2450 Mhz (>850W) up to 80 V/m on top the cabinet.
> >
> > These values are falses !
> > If we convert these data in watts, we see that the power radiated is
> > greater
> > that the emitter power. Hi !!
> >
> > More than 100 GSM were recently tested in Belgium by labs and controlled
> > by
> > the P&T (IBPT) and confirm that the measured fields, at one or two
> > exceptions, are BELOW 1V/m.
> > We are thus well below the energy released by any ham device.
> >
> > Problem I don't know if the microwave oven value is correct.
> > Can someone know its EM field expressed in V/m ?
> >
> > Thanks in advance
> >
> > Thierry, ON4SKY
> > http://www.astrosurf.com/lombry
> >
> >
>
>

# 2155. Re: Opinions on 4NEC2 and 4NEC2X?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-11 15:14:38 UTC
From: Wes Stewart <n7ws_@_yahoo.com>
Message-ID: <be07p0tl3ivc57t9iqneiajpcjv1s96i6j@4ax.com>
Source record: 86750

On Wed, 10 Nov 2004 15:02:32 -0500, "Jim" <IHateSpam@NoSpam.net>
wrote:

|I didn't ask where to get a copy, but what everyone thought of it.

Greatest thing since sliced bread.

|
|Jim
|N8EE
|<4nec2@gmx.net> wrote in message
|news:ee90361b.0411100748.4326a399@posting.google.com...
|> "Jim" <IHateSpam@NoSpam.net> wrote in message
|> news:<Q9thd.2303$TV1.2168@fe39.usenetserver.com>...
|>> What does everyone think of these?
|>
|> See http://www.si-list.org/swindex2.html
|>
|> Arie.
|
|

## 2156. Shielded loop antennas, one last time

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-11 17:24:07 UTC
From: Joel Kolstad <JKolstad71HatesSpam@Yahoo.Com>
Message-ID: <u8SdnYf4fvhWAg7cRVn-2A@comcast.com>
Source record: 86751

I went to the library and took a look in Johnson and Jasik's "Antenna Engineering Handbook," where a good explanation of the shielded loop antenna is provided. In brief, what happens is that the incident magnetic field induces a current around the _outside_ of the shield and -- due to the slit in the shield -- the current is then forced to flow "around the edge" and onto the _inside_ of the shield through whatever impedance it sees at the slit. If you're using a piece of coax where the center conductor has been shorted to the shield at the location of the slit, the impedance looking into the slit is the load impedance 'transformed' back the length of the transmission line (i.e., assuming a matched load, it would be the same as the transmission line impedance). If you're using a coil of insulated wire inside, e.g., a copper pipe, the slit impedance is pretty much a short circuit (well, a small inductance, actually -- the self inductance of the inside loop) so all the current induced on the outside is 'mirrored' into the inside. This then couples into the coil of insulated wire just as if the shield weren't there. Some small loss occurs due to the loop inductance and the finite conductivity of the shield. (I've found web sites with measured results showing that shielded loops do have readily measurable loss over unshielded loops.)

An interesting result of the above is that the polarity of the voltage coming out of a shielded loop should be opposite that of what's coming out of an unshielded loop. (Because in the case of the shielded loop, as the current flows over the edge of the slit it's reversing direction.) It would be fun to try this experimentally... (I'm thinking something like building another coil and discharging a capacitor through it to induce spikes in the antenna.)

The explanation on web sites about the shield acting something like an electric dipole doesn't really fly, IMO.

---Joel

# 2157. Re: Shielded loop antennas, one last time

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-11 17:34:14 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <9c87p09opinra2pet43dva8m55ske108mv@4ax.com>
Source record: 86752

On Thu, 11 Nov 2004 09:24:07 -0800, "Joel Kolstad"
<JKolstad71HatesSpam@Yahoo.Com> wrote:

>An interesting result of the above is that the polarity of the voltage
>coming out of a shielded loop should be opposite that of what's coming out
>of an unshielded loop. (Because in the case of the shielded loop, as the
>current flows over the edge of the slit it's reversing direction.) It would
>be fun to try this experimentally...

Hi Joel,

Build two loop antennas: one shielded, one un-shielded. Combine them
and see if the cancel (less the differential you've observed as loss
at various web sites (which bears reporting here)).

73's
Richard Clark, KB7QHC

# 2158. Re: Announcing SmartSmith version 1.5.3

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-11 19:31:37 UTC
From: w9dmk@crosslink.net
Message-ID: <4193bd2e.30881475@news.crosslink.net>
Source record: 86757

On Thu, 11 Nov 2004 11:14:58 +0200, "oh5rm" <oh5rm@luukku.com> wrote:

>Thanks for fine antenna sw.
>The names of the download files still refer to the older version 1.4, a bit
>confusing.

I am sorry about that. I have just fixed that in the last few minutes,
but I see that www.qsl.net is completely down for some reason. When it
next comes up, you should see that the file and the link to it have
been corrected. Actually, the filename was all that was wrong, because
I was too lazy to bring everything in sync.

Bob, W9DMK, Dahlgren, VA
http://www.qsl.net/w9dmk

# 2159. Re: Shielded loop antennas, one last time

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-11 19:43:44 UTC
From: richardharrison@webtv.net
Message-ID: <10061-4193C0F0-107@storefull-3252.bay.webtv.net>
Source record: 86753

Joel Kolstad wrote:
"An Interesting result of the above is that the polarity of the voltage coming out of a shielded loop should be opposite that of what`s coming out of an unshielded loop."

Yes, a phase reversal is produced by the change of current direction between the outside and inside surfaces of the loop shield. But carry your logic a bit further. There is a second phase reversal provided by the inductive coupling between the inner surface of the loop shield and the wire loop inside the shield.

The wire loop is the secondary of a transformer. Induced and counter emf are 180-degrees out of phase with the primary or source emf. For graphics see Fig. 5-14 on page 79 of Robert l. Shrader`s "Electronic Communication".

Best regards, Richard Harrison, KB5WZI

# 2160. Re: DOUBLE RESONANCE IN DIPOLE...THE CAUSE?????

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-11 20:33:27 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <4193c7a2$1_1@127.0.0.1>
Source record: 86754

Dr. Slick wrote:
> What if the resonant frequencies are 88.1 and about 92.0 MHz?

Log Periodic?
--
73, Cecil, W5DXP

# 2161. Re: DOUBLE RESONANCE IN DIPOLE...THE CAUSE?????

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-11 21:00:17 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <02j7p0l2jjjbtoemhrre0b9l4pp9ilnvhk@4ax.com>
Source record: 86755

On 11 Nov 2004 12:11:26 -0800, radio913@aol.com (Dr. Slick) wrote:

> Double dips (or even triple and more) certainly
>at harmonics of the fundamental, certainly.
>
> 88.1 and 92 aren't exactly harmonically related!

Never said they were, and until these recent posts, we all had to
guess. And besides, not all antennas are harmonically resonant.

> A broadband antenna usually doesn't have as good a
>match as a dedicated antenna.

You have too little exposure to the world of antennas to paint them
with that broad brush. A simple example is a discone antenna which is
a variant of the biconical antenna, which is the genesis of ALL
dipoles. Either the discone or the biconical display a very wide
bandwidth (octaves) and are eminently matchable by definition.

>This is why when i
>had two dips, the min. SWR was NOT as good as when i
>had only one resonant (not incuding harmonics) freq.

You have yet to disclose what SWRs were present to make this a
problem.

> Again, didn't need a choke for this one.

You have yet to show that it is not your problem, much less the lack
of need (which is a strict requirement for tuning). "Not needing" it
can be accomplished through one of two means:
Luck,
or
a hardwired solution (the customer, like with CB whips, cannot
vary the length without causing a major shift in dynamics).
Either way, the two are probably the same solution, an even halfwave
multiple length line. The longer the line, the more tenuous the
solution.

> Someone infered the first problem, not high
>above off the ground.

Which will broaden the response (lower the SWR) if too close.
Proximity to ground will shift resonance too, but not add resonances.

Your problem was feedline related. You simply (and without taking
note of it) changed that along with the melange of other activity and
pushed the "problem" up/down the spectrum. The addition of the other

dip is harmonically related to a structural issue that has a physical dimension related to the wavelength and velocity factor. There is no other way to accomplish this with "a garden variety dipole" except with a short transmission line to a SWR tester (I will bet your test cable was a generic 3 foot coax). Any coax line that is as long as an odd multiple quarter wavelength (1/4, 3/4, 5/4...) of the unusual dip will do the same thing if it is not snubbed at the drivepoint.

73's
Richard Clark, KB7QHC

# 2162. Re: DOUBLE RESONANCE IN DIPOLE...THE CAUSE?????

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-11 21:03:50 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <kmk7p0pfo6prbsgbl0l618pi60rtami24v@4ax.com>
Source record: 86756

On 10 Nov 2004 11:42:21 -0800, radio913@aol.com (Dr. Slick) wrote:
> Garden variety dipole.

On 11 Nov 2004 12:20:02 -0800, radio913@aol.com (Dr. Slick) wrote:
> Hint: no inductive choke was needed, and the radial
>lengths remained the same.

What do you grow in your garden?

# 2163. Re: Need Info - Vintage Hy-gain 4 Element Tri-band Beam

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-11 21:27:29 UTC
From: Simone <iw5edi_delthis@qsl.net>
Message-ID: <cn0lgg$lfi$1@domitilla.aioe.org>
Source record: 86758

"news" <y4562@comcast.net> ha scritto nel messaggio
news:9eidnQlSPsQsGAzcRVn-gQ@comcast.com...
> Came across a vintage Hy-gain beam in excellent condition with the four
inch
> diameter black traps. I think this beam is from the late 50's. Need
> element length and spacing dimensions. Missing the gamma matching
sections
> so will need configuration for the matching the single length driven
> element. Would be great to get a copy of the assembly and installation
> instructions.
>
> Any help would be appreciated.
>
> Larry

Try asking HyGain.

find their antenna manuals here:

http://www.dxzone.com/cgi-bin/dir/search.cgi?query=hy-gain

73

simone

# 2164. Re: Shielded loop antennas, one last time

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-11 21:52:37 UTC
From: Joel Kolstad <JKolstad71HatesSpam@Yahoo.Com>
Message-ID: <q-OdnccCy4giQw7cRVn-sg@comcast.com>
Source record: 86759

"Richard Harrison" <richardharrison@webtv.net> wrote in message
news:10061-4193C0F0-107@storefull-3252.bay.webtv.net...
> Yes, a phase reversal is produced by the change of current direction
> between the outside and inside surfaces of the loop shield. But carry
> your logic a bit further. There is a second phase reversal provided by
> the inductive coupling between the inner surface of the loop shield and
> the wire loop inside the shield.

Sure, of course... but there's also a (single) phase reversal in the
unshielded loop. Hence the overall difference between the shielded and
unshielded loop is still a single phase reversal. Or do you disagree?

---Joel

## 2165. 4 element?????????

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-11 22:26:39 UTC
From: carl wesser <wesser@hiwaay.net>
Message-ID: <10p7pp1j3a9eu7e@corp.supernews.com>
Source record: 86760

I was looking at a 4 el "trapped" horz ant,that is dissembled
.................hy-gain,mosley??
any ideas where to look for a "print"
thank you
Carl
xxxxxxxxxxxxxxxxxxxxxxxxxxxx

# 2166. Re: Announcing SmartSmith version 1.5.3

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-12 00:45:25 UTC
From: "NN7Kex<NOSPAM>k7zfg" <"NN7Kex<NOSPAM>k7zfg"@sbcglobal.net>
Message-ID: <EITkd.40886$QJ3.2878@newssvr21.news.prodigy.com>
Source record: 86761

A note for anyone downloading this program (and thanks, by the way)-
At least on my computer, this program auto launchs when you (re-)boot
the machine- the shortcut was installed in the windows start menu.
To prevent this, simply delete the shortcut, or pull to desktop - then
can launch when you want it- without haveing it run every time you
reboot your computer-- Jim NN7K

Robert Lay W9DMK wrote:

> On Thu, 11 Nov 2004 11:14:58 +0200, "oh5rm" <oh5rm@luukku.com> wrote:
>
>
>>Thanks for fine antenna sw.
>>The names of the download files still refer to the older version 1.4, a bit
>>confusing.
>
>
> I am sorry about that. I have just fixed that in the last few minutes,
> but I see that www.qsl.net is completely down for some reason. When it
> next comes up, you should see that the file and the link to it have
> been corrected. Actually, the filename was all that was wrong, because
> I was too lazy to bring everything in sync.
>
> Bob, W9DMK, Dahlgren, VA
> http://www.qsl.net/w9dmk

--
To reply, remove the <NOSPAM>

# 2167. Re: Facts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-12 00:46:18 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <419405e4$2_4@127.0.0.1>
Source record: 86762

Gene Fuller wrote:
> I am quite familiar with standing waves, thank you. I have no
> disagreements with Terman, Kraus, Balanis, or any other legitimate experts.

What I am still not understanding, is since the exponential equations
for voltage and current in a transmission line are identical except
for the Z0 term, how can something happen to the current without
the same thing happening to the voltage at the same time? How can
something happen to the voltage without also happening to the current
at the same time? In a matched system, the voltage and current arrives
at the load at exactly the same time attenuated by exactly the same
amount. But that voltage didn't flow and that current didn't drop???
--
73, Cecil, W5DXP

## 2168. Re: Facts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-12 01:09:09 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <p238p05ev3qpegc5l6poa1gj7lvrg0hfeu@4ax.com>
Source record: 86763

On Thu, 11 Nov 2004 18:46:18 -0600, Cecil Moore <w5dxp@hotmail.com>
wrote:
> the voltage and current arrives at the load at exactly the same time
Only if you skip a battery off someone's skull.

# 2169. Re: 4 element?????????

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-12 01:49:39 UTC
From: w9gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <TEUkd.22967$V41.10962@attbi_s52>
Source record: 86764

"carl wesser" <wesser@hiwaay.net> wrote in message
news:10p7pp1j3a9eu7e@corp.supernews.com...
>I was looking at a 4 el "trapped" horz ant,that is dissembled
>.................hy-gain,mosley??
> any ideas where to look for a "print"
> thank you
> Carl
> xxxxxxxxxxxxxxxxxxxxxxxxxxxx
Photos will save significant time here and reduce guessing. A picture is
worth a thousand words.
Were there any color bands on the boom?

Here is Mosley's web site:
http://www.mosley-electronics.com/amateur.htm

TA-33 series
http://www.mosley-electronics.com/nshfmulti.htm

Here is a Classic 33 manual
http://wb0nni.dakotamade.com/cl33_1.jpg

http://wb0nni.dakotamade.com/cl33_2.jpg

# 2170. Re: 4 element?????????

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-12 02:04:22 UTC
From: w9gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <GSUkd.23009$V41.19161@attbi_s52>
Source record: 86765

"carl wesser" <wesser@hiwaay.net> wrote in message
news:10p7pp1j3a9eu7e@corp.supernews.com...
>I was looking at a 4 el "trapped" horz ant,that is dissembled
>.................hy-gain,mosley??
> any ideas where to look for a "print"
> thank you
> Carl
> xxxxxxxxxxxxxxxxxxxxxxxxxxxx

Cushcraft has almost all of their assembly / instruction manuals on the web
site:
www.cuschcraft.com

MFJ / Hy-Gain also has many of the manuals for the later antennas on the web
site:
www.hy-gain.com

# 2171. Re: 4 element?????????

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-12 02:17:37 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <cpKdnVoUGYO8gAncRVn-iw@comcast.com>
Source record: 86766

"carl wesser" <wesser@hiwaay.net> wrote in message
news:10p7pp1j3a9eu7e@corp.supernews.com...
>I was looking at a 4 el "trapped" horz ant,that is dissembled
>.................hy-gain,mosley??
> any ideas where to look for a "print"
> thank you
> Carl
> xxxxxxxxxxxxxxxxxxxxxxxxxxxx
>
If one of the four elements doess not have a trap, it could be a Cushcraft A4. Mosley antennas that I have seen put two traps in one housing; so, it looks like there is only one trap per element side unlike the HyGain and Cushcraft that have two. Offhand, I can't think of a Hygain 4 element antenna with traps. I don't know if www.cushcraft.com still exists. You can get to the Hygain stuff from the MFJ site.

Tam/WB2TT

## 2172. Re: Facts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-12 02:30:20 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cn177s$lo4$1@sparta.btinternet.com>
Source record: 86767

> What I am still not understanding, is . . . .
>
>
To clear away all misconceptions and confusion, try returning to square one
and begin again with a clean slate.

dV/dz = -(R+j*Omega*L)*I

dI/dz = -(G+j*Omega*C)*V

---
Reg

# 2173. Re: Facts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-12 03:40:30 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <OgWkd.9295$7i4.7075@bgtnsc05-news.ops.worldnet.att.net>
Source record: 86768

Cecil,

If you prefer your voltages to flow and your currents to drop, have at it. :-)

Here's a hint.

In business, politics, crime (sorry for the redundancy), and a bunch of other stuff there is an old saw, "Follow the money."

In electronics the appropriate dictum is, "Follow the electrons."

There is no law regarding conservation of voltage. There is a fundamental law about conservation of change, and an equally strong law dealing with continuity of current.

Go ahead and label a change in current at two points on a wire a "drop" if you like, but don't confuse this change with a drop in voltage. They ain't the same thing.

73,
Gene
W4SZ

Cecil Moore wrote:
> Gene Fuller wrote:
>
>> I am quite familiar with standing waves, thank you. I have no
>> disagreements with Terman, Kraus, Balanis, or any other legitimate
>> experts.
>
>
> What I am still not understanding, is since the exponential equations
> for voltage and current in a transmission line are identical except
> for the Z0 term, how can something happen to the current without
> the same thing happening to the voltage at the same time? How can
> something happen to the voltage without also happening to the current
> at the same time? In a matched system, the voltage and current arrives
> at the load at exactly the same time attenuated by exactly the same
> amount. But that voltage didn't flow and that current didn't drop???
> --
> 73, Cecil, W5DXP

# 2174. Re: DOUBLE RESONANCE IN DIPOLE...THE CAUSE?????

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-12 04:50:55 UTC
From: radio913@aol.com
Message-ID: <1d15af91.0411112050.2dd0e53d@posting.google.com>
Source record: 86699

k7itm@aol.com (Tom Bruhns) wrote in message
news:<3200347.0411111155.5e0d2034@posting.google.com>...
> radio913@aol.com (Dr. Slick) wrote in message
news:<1d15af91.0411102014.461944dd@posting.google.com>...
>
> > Granted, i'll give you the harmonics, but a double-dip
> > at for example, 88.1 and 93.7 MHz would indicate a BIG
> > problem!
>
> So are you measuring _just_ the dipole, or the dipole through a
> feedline?

Through about 20 feet of RG-58.

Do you have any idea at all how many coupled resonators you
> are measuring? See, e.g., King, Mimno and Wing, to educate yourself
> about antenna systems seen as a set of coupled resonators. Disabuse
> yourself of the notion that you actually understand what your
> measurements mean at this point.

I understand it quite well... two non-harmonically
related resonances in a very narrow band (88-108 Mhz) is
a bad sign if you didn't design you antenna for broadband.

S.

# 2175. Re: Shielded loop antennas, one last time

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-12 05:01:11 UTC
From: richardharrison@webtv.net
Message-ID: <28531-41944397-377@storefull-3254.bay.webtv.net>
Source record: 86769

Joel Kolstad wrote:
"Hence the overall difference between the shielded and unshielded loop is still a single phase reversal."

Let`s reason together, as Lyndon Johnson used to say. An unshielded wire loop and/or a same size shield-pipe loop`s outer surface when placed in the same RF field and having the same attitudes in that field will have currents which attempt to flow in the same direction. Be it clockwise or counter-clockwise, it will be the same direction on the outside of both loops, shielded or unshielded.

As Joel noted, current flowing inside of the shielded loop has its direction (sense) reversed by the configuration of the shield pipe. As current flows from outside to inside the loop around the butt ends of the pipe at the shield gap, there is a phase reversal.

Current flowing on the outside of the shield toward the gap is flowing away from the gap once it has entered the shield. Also current flowing on the outside of the shield away from the gap, while it is on the inside of the shield it is flowing toward the gap. This is a 180-degree phase reversal between current on the outside of the loop as compared with that on the inside of the loop, This results just from current flowing around the butt ends of the shield pipe.

The current inside the loop on the surface of its shield is the primary current in a two-winding transformer.Current induced into the wire loop contained by the shield is secondary current in this transformer.

Transformer secondary current is in the same phase as self-induced current, that is it is 180-degrees out of phase with the primary current. Two phase reversals in the shielded loop place its output in the same phase as the unshielded loop.

Best regards, Richard Harrison, KB5WZI

# 2176. Re: Shielded loop antennas, one last time

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-12 06:05:35 UTC
From: Joel Kolstad <JKolstad71HatesSpam@Yahoo.Com>
Message-ID: <Cqmdnf6RI8jWzwncRVn-rg@comcast.com>
Source record: 86770

Hi Richard,

Ah, I see now that you're correct; thanks. I was forgetting that current 'reversal' on the exterior of the shield needed to oppose the incident field. Oops.

---Joel

# 2177. Re: Shielded loop antennas, one last time

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-12 06:51:45 UTC
From: Helmut Wabnig <**********>
Message-ID: <obn8p0980udg6b02ce2vmsnk2sl3uqdqgo@4ax.com>
Source record: 86771

On Thu, 11 Nov 2004 13:52:37 -0800, "Joel Kolstad"
<JKolstad71HatesSpam@Yahoo.Com> wrote:

>"Richard Harrison" <richardharrison@webtv.net> wrote in message
>news:10061-4193C0F0-107@storefull-3252.bay.webtv.net...
>> Yes, a phase reversal is produced by the change of current direction
>> between the outside and inside surfaces of the loop shield. But carry
>> your logic a bit further. There is a second phase reversal provided by
>> the inductive coupling between the inner surface of the loop shield and
>> the wire loop inside the shield.
>
>Sure, of course... but there's also a (single) phase reversal in the
>unshielded loop. Hence the overall difference between the shielded and
>unshielded loop is still a single phase reversal. Or do you disagree?
>
>---Joel
>
Disagree.
w.
--
On the Internet nobody knows that I am a dog.

# 2178. Re: Shielded loop antennas, one last time

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-12 07:54:39 UTC
From: k7itm@aol.com
Message-ID: <3200347.0411112354.76d3a3eb@posting.google.com>
Source record: 86701

Joel, think of it this way... Consider the "shielded loop" in which
the gap is at the top, and the left side is a piece of coax. The
outer of the coax is just the loop "shield" on the left side. The
coax center conductor connects to the right side of the loop "shield"
at the top, across the gap. So the current in the coax center
conductor is just the same as in the shield right side. In other
words, for a loop which is very small compared with a wavelength (at
least), the current in the center conductor is the same as the current
on the outside of the left half of the shield, and in phase with it.
In other words, it's the same as in an unshielded loop. I don't see
any phase reversal there.

Or consider it this way: the loop encloses essentially the same
time-varying magnetic field, whether you look at the loop formed by
the "shield" or the loop formed by the wires inside the "shield."

Cheers,
Tom

"Joel Kolstad" <JKolstad71HatesSpam@Yahoo.Com> wrote in message
news:<q-OdnccCy4giQw7cRVn-sg@comcast.com>...
> "Richard Harrison" <richardharrison@webtv.net> wrote in message
> news:10061-4193C0F0-107@storefull-3252.bay.webtv.net...
> > Yes, a phase reversal is produced by the change of current direction
> > between the outside and inside surfaces of the loop shield. But carry
> > your logic a bit further. There is a second phase reversal provided by
> > the inductive coupling between the inner surface of the loop shield and
> > the wire loop inside the shield.
>
> Sure, of course... but there's also a (single) phase reversal in the
> unshielded loop. Hence the overall difference between the shielded and
> unshielded loop is still a single phase reversal. Or do you disagree?
>
> ---Joel

# 2179. Re: cloverleaf anenna? - Big Wheel?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-12 11:45:08 UTC
From: "Edward A. Feustel" <efeustel@direcway.com>
Message-ID: <41949ffb$1_3@127.0.0.1>
Source record: 86672

"KC1DI" <elbc2@pivot.net> wrote in message news:41934515_5@127.0.0.1...
> Cecil Moore wrote:
>> Stefan B�rbaum wrote:

-- SNIP--
>
> I Remember back in early 60's a number of hams in my home town built
> clover leaf antennas for 2 & 6 meters.. if my memory serves me right they
> were horizontally mounted and worked quite well for 2 & 6 Mtr AM
> in those days .. I used one as a novice for 2 mtrs. Novices had 2m AM
> priviledges back then. But I had nothing to compare it to so can't say it
> was better or worse tnan any other 2m antenna. Also if memory serves me
> right it was mad up of 3 heart shaped full wave loops condected in
> paralell and fed with a single coaxial line.
>
> 73 Dave Kc1di
>
I still have such an antenna -- for two meters. It is the Cuschcraft Big
Wheel. It consists of
3 vertex-rounded triangular elements. I think they are a full wavelength
with one side of each
connected to the center conductor of the coax and the other side of each
connected to
ground. So it looks like a cloverleaf. It produces an omni-directional
pattern. My antenna has four of these stacked with phasing harnesses.

The original inquiry mentioned for use at broadcast frequencies, so I doubt
that the Big Wheel
is what is meant.

Ed, N5EI

## 2180. Re: 4 element?????????

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-12 12:49:09 UTC
From: w9gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <8j2ld.398440$D%.173967@attbi_s51>
Source record: 86673

"carl wesser" <wesser@hiwaay.net> wrote in message
news:10p7pp1j3a9eu7e@corp.supernews.com...
>I was looking at a 4 el "trapped" horz ant,that is dissembled
>.................hy-gain,mosley??
> any ideas where to look for a "print"
> thank you
> Carl
> xxxxxxxxxxxxxxxxxxxxxxxxxxxx
>

Here is the Cushcraft Technical Library of manuals
http://www.cushcraft.com/amateur/support/instruction-manuals.htm

## 2181. Re: Facts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-12 13:01:24 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <4194b22d$1_4@127.0.0.1>
Source record: 86674

Gene Fuller wrote:
> Go ahead and label a change in current at two points on a wire a "drop"
> if you like, but don't confuse this change with a drop in voltage. They
> ain't the same thing.

In the matched exponential transmission line equations, the
attenuation factors for the voltage and current are identical,
i.e. they decrease by exactly the same percentage.
--
73, Cecil, W5DXP

# 2182. Re: DOUBLE RESONANCE IN DIPOLE...THE CAUSE?????

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-12 14:14:26 UTC
From: radio913@aol.com
Message-ID: <1d15af91.0411120614.3a810e95@posting.google.com>
Source record: 86702

Richard Clark <kb7qhc@comcast.net> wrote in message
news:<kmk7p0pfo6prbsgbl0l618pi60rtami24v@4ax.com>...

>
> What do you grow in your garden?

http://www.marijuanaaddiction.info/img/weed%20plants.jpg

S.

# 2183. Re: DOUBLE RESONANCE IN DIPOLE...THE CAUSE?????

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-12 15:22:45 UTC
From: Mark <bigfathhairybiker@MAILhot.com>
Message-ID: <4194d42e$0$446$ed9e5944@reading.news.pipex.net>
Source record: 86675

"Dr. Slick" <radio913@aol.com> wrote in message
news:1d15af91.0411120559.49c1011d@posting.google.com...
> Cecil Moore <w5dxp@hotmail.com> wrote in message
news:<4193c7a2$1_1@127.0.0.1>...
> > Dr. Slick wrote:
> > > What if the resonant frequencies are 88.1 and about 92.0 MHz?
> >
> > Log Periodic?
>
>
> Or perhaps a discone of some sorts, sure.
>
> But we are talking about a simple dipole here.
>

All this sounds like the characteristics of a dummy load......

# 2184. Re: DOUBLE RESONANCE IN DIPOLE...THE CAUSE?????

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-12 15:30:48 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <4194d224$1_2@127.0.0.1>
Source record: 86676

Dr. Slick wrote:
> There are broadband folded dipoles for VHF,
> but you don't get something for nothing! They may
> be adequate across the band, but nothing beats
> a dedicated antenna.

Here's something for virtually nothing. Take a
commercial FM folded dipole, vary the feedline length,
and you have a tunable folded dipole peaking at your
frequency of choice. The tuning can be done by mounting
two telescoping antenna sections side-by-side.
--
73, Cecil, W5DXP

# 2185. Re: DOUBLE RESONANCE IN DIPOLE...THE CAUSE?????

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-12 15:37:13 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <fnl9p09c6hjjtvkkim9rvcg46q95uh6qse@4ax.com>
Source record: 86677

On 12 Nov 2004 06:07:50 -0800, radio913@aol.com (Dr. Slick) wrote:
> I'll bet you money that a well designed, dedicated, tunable
>antenna can achieve a better SWR than any discone.
I don't want your money (nor your ganja). Time and tide won't wait
for you to offer an example either. :-)

73's
Richard Clark, KB7QHC

# 2186. Re: 4 element?????????

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-12 15:54:17 UTC
From: Crazy George <muNnscOh@attSglPobaAl.nMet>
Message-ID: <41955da3_1@news1.prserv.net>
Source record: 86700

You are going to have to look very carefully at construction details to determine brand, and then at various differences
due to age to identify the specific model. Then go to the URLs listed for drawings. Just yesterday I was asked to sort
out a 6 element antenna, which turned out to be a HyGain TH6DXX with several TH7DX repair parts. The original TH6 boom
to mast hardware was notoriously weak, and was often replaced with the later, stronger TH7 assembly, but the
documentation on that modification is very obscure on the 'net, so the relatively inexperienced (re-) assembler was in a
quandary about the model, and consequently the dimensions.

In spite of other misinformation you have been provided, HyGain built a 4 element trapped antenna, the TH-4, sold in
several versions between about 1956 and 197?. See another posting 11/09/04 on this ng asking about one.

--
Crazy George
Remove N O and S P A M imbedded in return address
"carl wesser" <wesser@hiwaay.net> wrote in message
news:10p7pp1j3a9eu7e@corp.supernews.com...
> I was looking at a 4 el "trapped" horz ant,that is dissembled
> .................hy-gain,mosley??
> any ideas where to look for a "print"
> thank you
> Carl
> xxxxxxxxxxxxxxxxxxxxxxxxxxxx
>
>

# 2187. Re: DOUBLE RESONANCE IN DIPOLE...THE CAUSE?????

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-12 16:14:52 UTC
From: richardharrison@webtv.net
Message-ID: <11787-4194E17C-442@storefull-3255.bay.webtv.net>
Source record: 86678

Nilla Wafer wrote:
"Were the two halves of the dipole of equal length?"

The adjacent close-spaced wire ends have much mutual resistance and in most cases there os a considerable conductance between them too. In these cases, they resonate as a unit. But, imbalance enhaces radiation from the feedline which can produce a separate resonance.

Best regards, Richard Harrison, KB5WZI

# 2188. Re: cloverleaf anenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-12 16:29:48 UTC
From: Stefan Bürbaum <stefbuer@expires-30-11-2004.news-group.org>
Message-ID: <Xns959FB1DBC4D4Cstefbuer@ID-28520.user.dfncis.de>
Source record: 86679

Richard Harrison richardharrison@webtv.net wrote:

>> "Can anyone tell me more about this type?"
>
> John D. Kraus, W8JK says about the Cloverleaf Antenna for FM
> Broadcasting on page 429 of his 1950 edition of "Antennas":
> "One method of simulating the uniform loop is illustrated in Fig.
> 14-38b. Here four smaller loops are connected in parallel across a
> coaxial line. This arrangement is called a "cloverleaf" antenna. (P.H.
> Smith, Cloverleaf Antenna for FM Broadcasting, Proc. I.R.E.,35,
> 1556-1563, December 1947)."

Thank you.
Is this old book the only with a description of this antenna?

I found a pic from the WNEX Antenna:
http://www.theinternetfarm.com/goodtimer/wnex/wnexhist5.htm

Is there a scan from the pic in the book in the net?
Its very old, it should be free?

Why is this type of antenna not in use?
I know, the Big Wheel is a very good construction and very popular.
What was the advantage of Smith's cloverleaf antenna?

Stefan Bürbaum, OE3SBA

# 2189. Re: DOUBLE RESONANCE IN DIPOLE...THE CAUSE?????

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-12 16:29:51 UTC
From: richardharrison@webtv.net
Message-ID: <11788-4194E4FF-150@storefull-3255.bay.webtv.net>
Source record: 86680

Dr. Slick wrote:
"They (terminated folded dipoles) may be adequate across the band, but nothing beats a dedicated antenna."

A rhombic will clean your clock.

Best regards, Richard Harrison, KB5WZI

# 2190. Re: DOUBLE RESONANCE IN DIPOLE...THE CAUSE?????

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-12 17:00:28 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <4kq9p01gamvqei2b7n8sj2dreecurkjfgd@4ax.com>
Source record: 86681

On Fri, 12 Nov 2004 10:14:52 -0600, richardharrison@webtv.net (Richard Harrison) wrote:
> But, imbalance enhaces radiation
>from the feedline which can produce a separate resonance.

Hi Richard.

However, out stellar designer has managed to negate that through a "marijuana garden variety dipole" with radials. ;-)

I wonder who would be more interested. The DEA or the PTO?

73's
Richard Clark, KB7QHC

# 2191. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!! _____==___ pemluzov

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-12 17:03:12 UTC
From: Tim Patton <k4tjp@bellsouth.net>
Message-ID: <l06ld.6606$IQ.3826@bignews6.bellsouth.net>
Source record: 86682
Cross-posted to: rec.pyrotechnics,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc

Morons like you, and diatribes like this, simply reinforce my commitment to our way of life.

Every now and then it becomes necessary for someone to stand up and make other accountable for their actions, or, lack thereof. We do that while most of the world sits back and watches. There are Alfa Countries and Beta Countries and I think we Americans can get along fine without the Beta Countries. They're weak, they have no resolve and they are not willing to step up. Have we and will be make mistakes? Sure, but, that happens because we are human and as such we are prone to making mistakes. However, is the world better off in the long run because we step up? Damn right they are. Start counting the interventions and therein lies your answer. And, to you, Mr. Coward who won't ID yourself, let me tell you one thing; you are likely safe and secure because of us. Is that arrogance on our part? No, that's being accountable, something you're not, and something most of the rest of the countries of the world aren't either. Go ahead and balk at the Saddam's of this world and see where it gets you.

Tim Patton
K4TJP

<Victim_of_American_Stupidity@gafbi.ut.us> wrote in message news:sqelcyzodllzlnv0xyctlrvh1enzjpk@4ax.com...
> You blithering idiots! You re-elected that imbecile George Bush as your
> President.
> He's a complete moron and so are most of you!
> -
> Don't you care what the rest of the world thinks of you? Don't you care
> what impact
> American foreign policy has on the rest of the planet? Does Iraq look
> like a success
> to anyone? Doesn't it bother you that he's alienated every friend you
> have?
> What were you thinking???
> -
> Prior to this, it was American policy and the American government that was
> so universally
> hated around the world. Now it's going to be 'Americans' we hate. More
> sympathy
> for Bin Laden... More attacks on American institutions... More isolation.
> How blind
> can you dumb rednecks in middle-America be, not to see this?
> -

> If you get hit again, or your economy goes into a deep depression, the
> American
> people will be getting exactly what they deserve!

# 2192. Re: DOUBLE RESONANCE IN DIPOLE...THE CAUSE?????

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-12 17:34:39 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <4194ef2b$1_3@127.0.0.1>
Source record: 86683

Richard Clark wrote:
> However, out stellar designer has managed to negate that through a
> "marijuana garden variety dipole" with radials. ;-)

Radials? I missed that. How are the radials coupled to
the dipole?
--
73, Cecil, W5DXP

# 2193. Re: DOUBLE RESONANCE IN DIPOLE...THE CAUSE?????

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-12 17:38:39 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <nf87p0hrc5i5udf1rce4ekl8oegc6s02jm@4ax.com>
Source record: 86684

On Fri, 12 Nov 2004 11:34:39 -0600, Cecil Moore <w5dxp@hotmail.com>
wrote:
>Radials? I missed that.

On 11 Nov 2004 12:20:02 -0800, radio913@aol.com (Dr. Slick) wrote:
> Hint: no inductive choke was needed, and the radial
>lengths remained the same.

Problem: Unconventional usage leads to unconventional claims; shortly
followed by unconventional physics offered as proof in terms of
unconventional usage - familiar?

# 2194. Need Near Field equations problems

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-12 19:07:34 UTC
From: curiousjohn4@yahoo.com
Message-ID: <1030e2d8.0411091816.7e2a8bac@posting.google.com>
Source record: 86685
Cross-posted to: sci.physics.electromag,sci.physics.research,sci.physics,rec.radio.amateur.antenna

Hi,

Could someone please provide a correct near field equation that a computer programmer can understand? I'm using the following equation in a simple simulation but it's not working in all cases.

E = a * sin(theta) * q / ( 4 * pi * e * c^2 * r )

The computer program uses the above equation to create tiny segments of oscillating charge. The program simulates a wire carrying current and a ferrite material. The way I am simulating the ferrite material is by placing small loop currents.

According to the above equation, the near field from an infinitely long wire should not change with distance. That is, the near field at 1 inch should be the same as 10 inches. This also agrees with the near field results of an antenna-designing program. Now if that's true, then how can an infinitely long wire generate a net voltage across a closed circuit? If the electric field is uniform then the net induced voltage around a closed circuit that is near the infinitely long wire should be zero. But experimental results show that to be completely false. OK, I couldn't find an infinitely long wire, but a pretty long one. I entered the exact dimensions of my experiment and the simulation results were completely off from the experimental results. In fact, there was significant induced voltage from a very long wire.

Can any one please shed some light on my error? BTW, the simulation successfully predicted several other experiments when the theta angle was zero. Obviously the theta angle goes from zero to 180 degrees in an infinitely long wire. Am I using the wrong equation?

Any help is greatly appreciated,
CJ

# 2195. Re: Who has got any experience with InfoRelation (for Tim Kelly)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-12 19:26:34 UTC
From: dplatt@radagast.org
Message-ID: <10pa3jaf3jm7u60@corp.supernews.com>
Source record: 86686

In article <4f415a5d.0411121047.3231cde2@posting.google.com>,
ada <inforelation11@yahoo.com> wrote:

>Hallo,
>
>I think that everybody will agree that InfoRelation is a very useful
>proposal.

Actually, many people will say that they've never heard of it at all.

Others will conclude that a statement-in-praise-of-a-service
may be of questionable trustworthiness when it's posted by someone
whose email account name just happens to include the name of the
service being shilled.

*sheesh*.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

# 2196. Re: Announcing SmartSmith version 1.5.3

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-12 19:34:47 UTC
From: w9dmk@crosslink.net
Message-ID: <41950ffe.5070300@news.crosslink.net>
Source record: 86690

On Fri, 12 Nov 2004 00:45:25 GMT, "NN7Kex<NOSPAM>k7zfg"
<"NN7Kex<NOSPAM>k7zfg"@sbcglobal.net> wrote:

>A note for anyone downloading this program (and thanks, by the way)-
>At least on my computer, this program auto launchs when you (re-)boot
>the machine- the shortcut was installed in the windows start menu.
>To prevent this, simply delete the shortcut, or pull to desktop - then
>can launch when you want it- without haveing it run every time you
>reboot your computer-- Jim NN7K

Dear Jim,

That's the first I've heard of anything like that! It certainly
doesn't do that on any of my systems here. What is your operating
system, please!

Also, if anyone else experiences that, please let me know.

Tnx,

Bob, W9DMK, Dahlgren, VA
http://www.qsl.net/w9dmk

# 2197. Re: DOUBLE RESONANCE IN DIPOLE...THE CAUSE?????

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-12 20:18:54 UTC
From: radio913@aol.com
Message-ID: <1d15af91.0411121218.25b431a7@posting.google.com>
Source record: 86703

"Mark" <bigfathhairybiker@MAILhot(swapemround).com> wrote in message
news:<4194d42e$0$446$ed9e5944@reading.news.pipex.net>...
> >
> > Or perhaps a discone of some sorts, sure.
> >
> > But we are talking about a simple dipole here.
> >
>
> All this sounds like the characteristics of a dummy load......

Who you calling dummy, dummy? :)

the ideal dummy load would have a perfect match across
the entire band.

S.

# 2198. Re: DOUBLE RESONANCE IN DIPOLE...THE CAUSE?????

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-12 20:37:28 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <697ap0hqbhdrplt3jknrd9agt67ftnqmm7@4ax.com>
Source record: 86687

On 12 Nov 2004 12:16:27 -0800, radio913@aol.com (Dr. Slick) wrote:
> Don't take my word for it
Never entered my mind to do that.
>...go measure and compare for yourself...
Been there, done that. Time and tide are not still for the
expectation of ganja-man's example. :-)

73's
Richard Clark, KB7QHC

## 2199. Re: cloverleaf anenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-12 21:02:52 UTC
From: richardharrison@webtv.net
Message-ID: <11788-419524FC-169@storefull-3255.bay.webtv.net>
Source record: 86689

Stefan Burbaum wrote:
"Is this old book the only with a description of this antenna?"

No. The new 3rd edition of "Antennas" also has the "clover-leaf" on page 726 along with several similar types.

I`ll speculate that the horizontally polarized omnidirectional antenna has faded in popularity due to so many automobile FM radios in use. Vertical or circular polarization may be better for line-of-sight propagation to an automobile which is equipped with a vertical car antenna.

Best regards, Richard Harrison, KB5WZI

## 2200. Items Wanted

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-12 21:06:58 UTC
From: Dennis Kaylor <k4oxg@tampabay.rr.com>
Message-ID: <SB9ld.28636$As5.24985@tornado.tampabay.rr.com>
Source record: 86688

hello all
i am in need of the following antennas all must be in very good
condition and you MUST BE WILLING TO SHIP

Cushcraft A50S-6
Cushcraft 13B2
M2 2M12
M2 6M5X
M2 Satellite antennas
also need a yagi for 432mhz with a boom of about 20 feet
also looking for an Icom IC706MkIIG and an Icom ICAG35 70cm mast mounted
Preamp
what do you have
thanks
mailto://k4oxg@tampabay.rr.com

# 2201. Re: DOUBLE RESONANCE IN DIPOLE...THE CAUSE?????

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-12 21:34:16 UTC
From: Lee Hopper <leehopp@centurytel.net>
Message-ID: <41952C58.90202@centurytel.net>
Source record: 86691

Dr. Slick wrote:
> I'm certain that one of two things (or a
> combo of both) did the trick, but i wanted to
> see if any of you seasoned antenna boys could
> guess what the problem was.

Dear Dr -

This is just a WAG, but were you supporting the dipole on an aluminum ladder at first? Then substituted a non-metalic support?

Thanks for the interesting topic - I see it has long legs!

Lee H, NB7F
antenna boy...

# 2202. Re: Announcing SmartSmith version 1.5.3

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-12 21:43:36 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41952c91$1_5@127.0.0.1>
Source record: 86692

Robert Lay W9DMK wrote:
> What is your operating system, please!

DOS 1.4 :-)

# 2203. Re: Facts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-12 23:38:15 UTC
From: Frank <ve6cb@NOSPAM.telus.net>
Message-ID: <HPbld.96602$VA5.71516@clgrps13>
Source record: 86693

"Frank" <ve6cb@NOSPAM.telus.net> wrote in message
news:t4okd.90482$VA5.33610@clgrps13...
>
> "Frank" <ve6cb@NOSPAM.telus.net> wrote in message
> news:H4hkd.141267$9b.112169@edtnps84...
>> Modeled #14 AWG, copper conductor, 32ft monopole, 29 radials of 25ft, and
>> base 6" above (nominal lambda/1000) Sommerfeld/Norton ground of Er = 13,
>> sigma = 0.013 S/m at 1.8 MHz. All segments 6".
>>
>> NEC2 computes:
>> Zin = 2.87 - j1358 Efficiency 92%
>>
>> RADIALS2 computes (with radials 1mm below ground):
>> Zin = 1.55 - j1310 Efficiency 23.5%
>>
>> Not a large amount of difference, but thought I had gotten closer results
>> with a different monopole, but seem to have deleted the code (Not sure
>> why such a large difference in efficiency). NEC2 is supposed to provide
>> a reasonable approximation of a buried radial monopole when at about
>> lambda/1000 above ground. Be interested in any comments, and what NEC4
>> provides if anybody has it.
>>
>> 73,
>
> Of course the higher efficiency is due to NEC calculating only the I^2R
> losses, and not the TRP. TRP should be fairly easy to calculate since the
> pattern is "phi" independent. Have not checked to see if there is a TRP
> card.
> Note that a 32 ft monopole mounted on a perfect ground has an input
> impedance of 1.58 - j1311 Ohms. The efficiency is reduced to 86% due to
> increased I^2R losses.
>
> Frank

From the calculated field strength (as a function of Theta) the TRP for 100
W input, which includes copper and ground losses, shows 27.4 W, or 27.4%
efficient. In very close agreement with the RADIALS2 program. The only
noticeable discrepancy appears to be in the real part of Zin.

Frank

# 2204. Amateur & PMR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-12 23:40:25 UTC
From: Goetz <goetz@goetz-von.com>
Message-ID: <cn3hl9$h0j$1@sparta.btinternet.com>
Source record: 86694

Hi,

You may already be aware that a new Two Way Radio Forum has been launched at www.euronium.de

This Free to use Forum for Radio Amateurs and other Two Way Radio Users including PMR Users has no advertisements, pop-ups or trade sponsorships and is funded entirely by Radio Amateurs at www.euronium.de for the benefit of all Two Way Radio users, sections for all brands of radio include a mods area, help area, modes area, buy and sell and other interesting forums. Please pay a visit, register and help make this new Forum a success.

Very kind regards,

G&#65533;etz

www.euronium.de

# 2205. Re: Announcing SmartSmith version 1.5.3

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-13 00:01:20 UTC
From: "NN7Kex<NOSPAM>k7zfg" <"NN7Kex<NOSPAM>k7zfg"@sbcglobal.net>
Message-ID: <k9cld.8342$zx1.7376@newssvr13.news.prodigy.com>
Source record: 86695

Bob- this on 1200 MHz celeron- with windows "XP", service pack 2, and all upgrades. Made by E-systems, and has some quirkies- notably, when running some DOS based software (like ARRL's "Microsmith", it generates graphic trash in the results column), but this was not something I have seen before.

Internet browser is Mozilla 1.7.3, and this was NOT downloaded from QSL.Net- got the copy from the gentleman that placed on his webpage, as was like mollassas downloading off of qsl.net . Also, it is 1.4.0, NOT version 1.5.3 (dont know if that had provision to place the shortcut into the start menu). But, after downloading, and then rebooting, was surprised to see it running. Turned out this was solution. Jim -NN7K

Robert Lay W9DMK wrote:
> On Fri, 12 Nov 2004 00:45:25 GMT, "NN7Kex<NOSPAM>k7zfg"
> <"NN7Kex<NOSPAM>k7zfg"@sbcglobal.net> wrote:
>
>
>>A note for anyone downloading this program (and thanks, by the way)-
>>At least on my computer, this program auto launchs when you (re-)boot
>>the machine- the shortcut was installed in the windows start menu.
>>To prevent this, simply delete the shortcut, or pull to desktop - then
>>can launch when you want it- without haveing it run every time you
>>reboot your computer-- Jim NN7K
>
>
> Dear Jim,
>
> That's the first I've heard of anything like that! It certainly
> doesn't do that on any of my systems here. What is your operating
> system, please!
>
> Also, if anyone else experiences that, please let me know.
>
> Tnx,
>
> Bob, W9DMK, Dahlgren, VA
> http://www.qsl.net/w9dmk

--
To reply, remove the <NOSPAM>

# 2206. Re: Announcing SmartSmith version 1.5.3

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-13 00:13:23 UTC
From: "NN7Kex<NOSPAM>k7zfg" <"NN7Kex<NOSPAM>k7zfg"@sbcglobal.net>
Message-ID: <Dkcld.20734$6q2.17927@newssvr14.news.prodigy.com>
Source record: 86696

NN7Kex<NOSPAM>k7zfg wrote:

OS Name Microsoft Windows XP Home Edition
Version 5.1.2600 Service Pack 2 Build 2600
OS Manufacturer Microsoft Corporation

More precisely, this is op system on this-- Jim NN7K

> Robert Lay W9DMK wrote:
>

>> Dear Jim,
>>
>> That's the first I've heard of anything like that! It certainly
>> doesn't do that on any of my systems here. What is your operating
>> system, please!
>>
>> Also, if anyone else experiences that, please let me know.
>>
>> Tnx,
>>
>> Bob, W9DMK, Dahlgren, VA
>> http://www.qsl.net/w9dmk
>
>
>

--
To reply, remove the <NOSPAM>

# 2207. Re: Announcing SmartSmith version 1.5.3

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-13 00:46:59 UTC
From: w9dmk@crosslink.net
Message-ID: <4195592a.23802536@news.crosslink.net>
Source record: 86704

On Fri, 12 Nov 2004 15:43:36 -0600, Cecil Moore <w5dxp@hotmail.com>
wrote:

>Robert Lay W9DMK wrote:
>> What is your operating system, please!
>
>DOS 1.4 :-)

Honestly, Cecil, I don't remember DOS 1.4 - don't even know if such an
animal ever got out in the wild, but I DO REMEMBER DOS 2.0 - quite
well. As I remember it, the big improvement in DOS 3.0 was that you
could have directories OTHER than the root.

Bob, W9DMK, Dahlgren, VA
http://www.qsl.net/w9dmk

# 2208. Re: Announcing SmartSmith version 1.5.3

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-13 00:49:50 UTC
From: w9dmk@crosslink.net
Message-ID: <419559ca.23962025@news.crosslink.net>
Source record: 86705

On Sat, 13 Nov 2004 00:13:23 GMT, "NN7Kex<NOSPAM>k7zfg"
<"NN7Kex<NOSPAM>k7zfg"@sbcglobal.net> wrote:

>NN7Kex<NOSPAM>k7zfg wrote:
>
>OS Name Microsoft Windows XP Home Edition
>Version 5.1.2600 Service Pack 2 Build 2600
>OS Manufacturer Microsoft Corporation
>
>More precisely, this is op system on this-- Jim NN7K

OK, Jim, I am going to try to check all that out on an XP system,
although I have only XP Pro, so I can't check out XP Home. Will get
back to you if I can find anything to explain it. Tnx for the info.

Bob, W9DMK, Dahlgren, VA
http://www.qsl.net/w9dmk

# 2209. Re: Announcing SmartSmith version 1.5.3

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-13 03:15:42 UTC
From: w9dmk@crosslink.net
Message-ID: <41957b72.103969@news.crosslink.net>
Source record: 86708

On Fri, 12 Nov 2004 00:45:25 GMT, "NN7Kex<NOSPAM>k7zfg"
<"NN7Kex<NOSPAM>k7zfg"@sbcglobal.net> wrote:

>A note for anyone downloading this program (and thanks, by the way)-
>At least on my computer, this program auto launchs when you (re-)boot
>the machine- the shortcut was installed in the windows start menu.
>To prevent this, simply delete the shortcut, or pull to desktop - then
>can launch when you want it- without haveing it run every time you
>reboot your computer-- Jim NN7K

Dear Jim,

I have completed a test installation of the ver 1.4 on a Windows XP
system, and I think I can explain what must have happended during your
installation. There comes a point in the installation where the
installer presents a list of different Start->Programs folders for you
to choose from. By default it shows SmartSmith as the selected folder.
However, directly below that is the folder "Start Up". I have to
assume that you inadvertantly selected the "Start Up" folder instead
of leaving it at the default.

Bob, W9DMK, Dahlgren, VA
http://www.qsl.net/w9dmk

# 2210. Re: Facts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-13 04:28:41 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cn42hp$689$1@hercules.btinternet.com>
Source record: 86706

Frank, as you say, the height of the radials in the NEC2 model is only 6 inches above ground.

The radials are shallow-buried in the RADIALS2 model. It can't do elevated radials.

The ground loss resistance as height decreases, as seen by the antenna, increases very fast percentage-wise as the radials get within a few inches of the ground. It is due to very close magnetic and electric coupling to ground. Radials are transmission lines, insulated from but running very close to a resistive slab of soil.

This would account for the computed higher input resistance of the radials ( 3.5 - j*3.3 ohms ) ( for 29, 25-feet long radials. Rg=77, K=13 ) in program RADIALS2.

The calculated antenna input impedance in RADIALS2 is that of the antenna alone. For feedpoint impedance add the input impedance of the radial system. Presumably, NEC2 does not compute the input reactance of radials.

Efficiency is calculated in the usual way from the sum of antenna input resistance and radials' input resistance.

If you contrive to change the radials input reactance without changing frequency or the antenna, you will notice the loading coil tunes it out along with antenna reactance.

Incidentally, when elevated radials are near the ground their velocity factor decreases fast which makes a mess of the usual recommendation to prune them to 1/4-wave free-space length.

When radials are actually lying on the ground surface the velocity factor decreases to roughly 0.5 of the velocity of light. When buried the underground VF can fall to as small as 0.15 depending on soil permittivity. (or moisture content.)
----
Reg, G4FGQ

## 2211. Antenna trap rubber caps...options

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-13 05:05:14 UTC
From: Kirk Mohror <kmohror@comcast.net>
Message-ID: <numdnSYEMbZkCAjcRVn-rA@comcast.com>
Source record: 86707

I have a Hy-Gain TH-3MK3 (Thunderbird) and the rubber end caps for the traps have weather rotted.
Does anyone have a sugestion for an alternative or a quick fix for replacements.
I know, I can order them through Hy-Gain. I do have some time issues.

Thanks,
Kirk
K7EKM

# 2212. Re: Facts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-13 05:49:11 UTC
From: Frank <ve6cb@NOSPAM.telus.net>
Message-ID: <rfhld.97674$VA5.83768@clgrps13>
Source record: 86709

Reg, thanks for the info. I see I was making an error with RADIALS2. Did not realize that you had to add the radial impedance to the antenna impedance; I thought it was computed in the final result. I figured something was weird since the input impedance was similar to the antenna modeled over a perfect ground. NEC2 does compute the input impedance of the complete structure, but as mentioned before it is limited, in that all wires must be >= lambda/1000 above the ground (at 1.8 MHz about 6"). I am just starting to delve into computational electromagnetics, so do not know that much about NEC. It uses the "Method of moments" in its computations. The theory of operation manual is available for download at several web sites.

Anyway, with RADIALS2, I now get an input impedance of 5.1 - j1303, and with NEC2 2.9 - j1358. I did try entering a negative number for the depth of the radials, but RADIALS2 did not like it.

Your comments about the effect on the radials of being buried are also very interesting, and obviously indicate the reason for our slightly different results. The very low VF of buried radials indicates that the length is less important.

As for efficiency, NEC2 computes a normalized far E-field at 1 meter. For phi independent structures it becomes trivial to integrate the power density over a hemispherical region to arrive at the true total radiated power. 100 Watts into the antenna radiates 27 Watts, again, very close to RADIALS2' computed efficiency of 23.5%. Come to think of it, I guess I could have estimated the losses -- as you do -- by comparing the input impedance of an antenna over a perfect ground with the same antenna over a lossy ground. Still I think it was more fun playing with Excel spread sheets and coming up with a similar answer.

Regard,

Frank

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message news:cn42hp$689$1@hercules.btinternet.com...
> Frank, as you say, the height of the radials in the NEC2 model is only 6
> inches above ground.
>
> The radials are shallow-buried in the RADIALS2 model. It can't do elevated
> radials.
>
> The ground loss resistance as height decreases, as seen by the antenna,
> increases very fast percentage-wise as the radials get within a few inches
> of the ground. It is due to very close magnetic and electric coupling to
> ground. Radials are transmission lines, insulated from but running very

> close to a resistive slab of soil.
>
> This would account for the computed higher input resistance of the radials
> ( 3.5 - j*3.3 ohms ) ( for 29, 25-feet long radials. Rg=77, K=13 ) in
> program RADIALS2.
>
> The calculated antenna input impedance in RADIALS2 is that of the antenna
> alone. For feedpoint impedance add the input impedance of the radial
> system.
> Presumably, NEC2 does not compute the input reactance of radials.
>
> Efficiency is calculated in the usual way from the sum of antenna input
> resistance and radials' input resistance.
>
> If you contrive to change the radials input reactance without changing
> frequency or the antenna, you will notice the loading coil tunes it out
> along with antenna reactance.
>
> Incidentally, when elevated radials are near the ground their velocity
> factor decreases fast which makes a mess of the usual recommendation to
> prune them to 1/4-wave free-space length.
>
> When radials are actually lying on the ground surface the velocity factor
> decreases to roughly 0.5 of the velocity of light. When buried the
> underground VF can fall to as small as 0.15 depending on soil
> permittivity.
> (or moisture content.)
> ----
> Reg, G4FGQ
>
>
>
>

# 2213. Re: Antenna trap rubber caps...options

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-13 12:41:02 UTC
From: "Gary S." <Idontwantspam@net>
Message-ID: <430cp0tp4bir41fhbn7r1orc46vtm5rsvt@4ax.com>
Source record: 86710

On Fri, 12 Nov 2004 21:05:14 -0800, "Kirk Mohror"
<kmohror@comcast.net> wrote:

>I have a Hy-Gain TH-3MK3 (Thunderbird) and the rubber end caps for the traps
>have weather rotted.
>Does anyone have a sugestion for an alternative or a quick fix for
>replacements.
>I know, I can order them through Hy-Gain. I do have some time issues.
>
www.mcmaster.com has all sorts of useful things, including plastic and
rubber caps.

Quick shipping, it is rare that you not not get something from them
the next business day.

Very big online catalog.

Happy trails,
Gary (net.yogi.bear)
---
at the 51st percentile of ursine intelligence

Gary D. Schwartz, Needham, MA, USA
Please reply to: garyDOTschwartzATpoboxDOTcom

# 2214. Re: Facts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-13 14:39:56 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41961ac5$1_3@127.0.0.1>
Source record: 86711

Reg Edwards wrote:
> To clear away all misconceptions and confusion, try returning to square one
> and begin again with a clean slate.
>
> dV/dz = -(R+j*Omega*L)*I
>
> dI/dz = -(G+j*Omega*C)*V

Those are essentially the differential equations used by Ramo and
Whinnery to develop the following exponential equations for load
matched transmission lines (no reflections):

V = V+(e^-az)(e^-jbz)

I = V+(e^-az)(e^-jbz)/Z0

where 'a' is the attenuation factor. So why does an attenuated
voltage drop while a current, attenuated by exactly the same
percentage, doesn't drop?
--
73, Cecil, W5DXP

# 2215. Re: 4 element?????????

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-13 14:50:01 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <x4qdnQPfpPpogwvcRVn-gw@comcast.com>
Source record: 86712

"Crazy George" <muNnscOh@attSglPobaAl.nMet> wrote in message
news:41955da3_1@news1.prserv.net...
> .....
> In spite of other misinformation you have been provided, HyGain built a 4
> element trapped antenna, the TH-4, sold in
> several versions between about 1956 and 197?. See another posting
> 11/09/04 on this ng asking about one.
>
> --
> Crazy George
.....

I think it was shorter lived than that. I have 1962 and 1964 ham catlogs, the TH4 is in the 62 (no picture), but not in the 64. By 1964 the TH5 was out. That is not to say they were all sold by 64. I should have mentioned the Explorer 14, which they call a 4 element antenna, but to the casual observer looks like it has 6 elements.

BTW, Hygain no longer comes up on the MFJ web site. Anybody know if they sold it?

Tam/WB2TT

## 2216. MP-1 or 2 as mobile antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-13 15:06:11 UTC
From: Steve Ferguson <stevferg@adelphia.net>
Message-ID: <jJidnSm1qbwDvwvcRVn-rA@adelphia.com>
Source record: 86713

Does anyone use the MP-1 or MP-2 as a mobile antenna? Does it do well? How does it weather? thanks for any info...Steve/N$PKJ

# 2217. Re: DOUBLE RESONANCE IN DIPOLE...THE CAUSE?????

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-13 15:20:29 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <1Dpld.28500$Qv5.7839@newssvr33.news.prodigy.com>
Source record: 86714

Dr. Slick wrote:
"(1)A properly tuned and positioned dipole will
be resonant at only one frequency.
(2)Double-dips are a bad sign, and the return loss suffers."

(1) - Nope, just not true.
(2) - Not true either. (see #1)

With the two 'dips' not being harmonically related, it
appears that there is some 'other' reason, the feed line
for one, or something near the antenna (a person for instance?).
'Doc

# 2218. Re: Antenna trap rubber caps...options

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-13 15:51:08 UTC
From: w9gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <M3qld.605736$8_6.501043@attbi_s04>
Source record: 86715

"Kirk Mohror" <kmohror@comcast.net> wrote in message
news:numdnSYEMbZkCAjcRVn-rA@comcast.com...
>I have a Hy-Gain TH-3MK3 (Thunderbird) and the rubber end caps for the
>traps have weather rotted.
> Does anyone have a sugestion for an alternative or a quick fix for
> replacements.
> I know, I can order them through Hy-Gain. I do have some time issues.
>
> Thanks,
> Kirk
> K7EKM

Shepard Hardware Products
Three Oaks, Michigan 49128

A well stocked hardware store (and some Home Depot/Lowes) will have these
usually in White (instead of black) in 1" to about 2" in 1/4" increments.

I usually find them as:

Crutch tips, shower rod end caps; galvanized fence post vinyl cap.

KEY ATTRIBUTE IS TO FIND -- UV resistant product -- which reduces
outdoor/sunlight effects.

w9gb

# 2219. Re: 4 element - Hy-Gain web site

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-13 15:53:08 UTC
From: w9gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <D5qld.81419$HA.72879@attbi_s01>
Source record: 86716

"Tam/WB2TT" <t-tammaru@c0mca$t.net> wrote in message
news:x4qdnQPfpPpogwvcRVn-gw@comcast.com...
>
> I think it was shorter lived than that. I have 1962 and 1964 ham catlogs,
> the TH4 is in the 62 (no picture), but not in the 64. By 1964 the TH5 was
> out. That is not to say they were all sold by 64. I should have mentioned
> the Explorer 14, which they call a 4 element antenna, but to the casual
> observer looks like it has 6 elements.
>
> BTW, Hygain no longer comes up on the MFJ web site. Anybody know if they
> sold it?
>
> Tam/WB2TT
Hy-Gain (MFJ) web site is working fine for me:

http://www.hy-gain.com/

## 2220. thank you.....

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-13 15:59:20 UTC
From: carl wesser <wesser@hiwaay.net>
Message-ID: <10pcbr0le7u1310@corp.supernews.com>
Source record: 86717

I wish to thank ALL....I will go back and look @ the elements and try to
decipher what it is...2 of the trapped elements are exactly the same length
and look identical.....NO color coding.....it has the square
horizontal "wire"connectors between the elements..I only see 3 clamp points
for the elements to the boom....., But the owner said all 4 were attached
when he took it down,,,,,,,,,,,,each element is fully assembled ,,,,,,,,,
the elements have a sweged size reducer near the tips......some of the
traps are about 3 inches in diameter, some are about 1 1/2 " diam..
it approaches looking like the TA33mu arc
the search contionues,
carl
thank you

ffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffff

"All that is Required for Evil to Succeed is for Good Men to DO NOTHING"

## 2221. Re: thank you .....

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-13 16:13:37 UTC
From: w9gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <Coqld.34313$5K2.32604@attbi_s03>
Source record: 86718

"carl wesser" <wesser@hiwaay.net> wrote in message
news:10pcbr0le7u1310@corp.supernews.com...
>I wish to thank ALL....I will go back and look @ the elements and try to
>decipher what it is...2 of the trapped elements are exactly the same length
>and look identical...........NO color coding.............it has the square
>horizontal "wire"connectors between the elements..I only see 3 clamp points
>for the elements to the boom....., But the owner said all 4 were attached
>when he took it down,,,,,,,,,,,,each element is fully assembled ,,,,,,,,,
> the elements have a sweged size reducer near the tips......some of the
> traps are about 3 inches in diameter, some are about 1 1/2 " diam..
> it approaches looking like the TA33mu arc
> the search contionues,
> carl
> thank you
>
> ==============================
>

Carl -

You will find that MFJ/Hy-Gain does not have all of the manuals on-line
(e.g. TH-4 model). Unfortunately, the manuals/documentation for early or
short lived Hy-Gain antenna models are not in the possession of MFJ/Hy-Gain.
These were likely lost in earlier ownership changes or accidentally thrown
out through the years.

This is not a problem unique to MFJ/Hy-Gain. Bencher had a similar problem
with early documentation after its acquisition of Butternut antenna line
from the previous owner.
Cushcraft does not have manuals for some of its very early vertical and beam
designs (short lived).
The owners of these antennas could perform a service to the amateur
fraternity and send copies (or PDF scans) of their documentation to the
current owners, with the stipulation that it be posted for all.

gb

# 2222. Re: Antenna trap rubber caps... web page!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-13 16:17:13 UTC
From: w9gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <dsqld.501404$mD.91925@attbi_s02>
Source record: 86719

"Kirk Mohror" <kmohror@comcast.net> wrote in message
news:numdnSYEMbZkCAjcRVn-rA@comcast.com...
>I have a Hy-Gain TH-3MK3 (Thunderbird) and the rubber end caps for the
>traps have weather rotted.
> Does anyone have a sugestion for an alternative or a quick fix for
> replacements.
> I know, I can order them through Hy-Gain. I do have some time issues.
>
> Thanks,
> Kirk
> K7EKM
I did not know the size of your traps .. there are other mfg. offering
products

http://www.shepherdhardware.com/Pages/Catalog/plastictips.html

# 2223. Re: Antenna trap rubber caps - desk grommets

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-13 16:18:57 UTC
From: w9gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <Rtqld.81459$HA.24686@attbi_s01>
Source record: 86720

"Kirk Mohror" <kmohror@comcast.net> wrote in message
news:numdnSYEMbZkCAjcRVn-rA@comcast.com...
>I have a Hy-Gain TH-3MK3 (Thunderbird) and the rubber end caps for the
>traps have weather rotted.
> Does anyone have a sugestion for an alternative or a quick fix for
> replacements.
> I know, I can order them through Hy-Gain. I do have some time issues.
>
> Thanks,
> Kirk
> K7EKM
For larger sizes -- you can look to desk grommets (woodworking/electrical
departments)

http://www.shepherdhardware.com/Pages/Catalog/grommets.html

gb

# 2224. Re: DOUBLE RESONANCE IN DIPOLE...THE CAUSE?????

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-13 16:56:49 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41963ad9$1_5@127.0.0.1>
Source record: 86721

'Doc wrote:
> Dr. Slick wrote:
> "(1)A properly tuned and positioned dipole will
> be resonant at only one frequency.
> (2)Double-dips are a bad sign, and the return loss suffers."
>
> (1) - Nope, just not true.
> (2) - Not true either. (see #1)
>
> With the two 'dips' not being harmonically related, it
> appears that there is some 'other' reason, the feed line
> for one, or something near the antenna (a person for instance?).
> 'Doc

He said something about radials. Radials not attached to the
antenna are like parasitic elements. Two shorter radials will
resonate at a higher frequency than two longer radials.
--
73, Cecil, W5DXP

# 2225. Re: Need Info - Vintage Hy-gain 4 Element Tri-band Beam

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-13 17:09:22 UTC
From: w9gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <6drld.34487$5K2.8882@attbi_s03>
Source record: 86622

"news" <y4562@comcast.net> wrote in message
news:9eidnQlSPsQsGAzcRVn-gQ@comcast.com...
> Came across a vintage Hy-gain beam in excellent condition with the four
> inch
> diameter black traps. I think this beam is from the late 50's. Need
> element length and spacing dimensions. Missing the gamma matching
> sections
> so will need configuration for the matching the single length driven
> element. Would be great to get a copy of the assembly and installation
> instructions.
>
> Any help would be appreciated.
>
> Larry
>
>

Hy-Gain (MFJ) web site :

http://www.hy-gain.com/

# 2226. Re: 4 element - Hy-Gain web site

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-13 17:22:41 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <--SdnbCWH6Eg3wvcRVn-pw@comcast.com>
Source record: 86623

"w9gb" <onw9mapsgb@no.arrl.spam.net> wrote in message
news:D5qld.81419$HA.72879@attbi_s01...
> "Tam/WB2TT" <t-tammaru@c0mca$t.net> wrote in message
> news:x4qdnQPfpPpogwvcRVn-gw@comcast.com...
>>
>> I think it was shorter lived than that. I have 1962 and 1964 ham catlogs,
>> the TH4 is in the 62 (no picture), but not in the 64. By 1964 the TH5 was
>> out. That is not to say they were all sold by 64. I should have mentioned
>> the Explorer 14, which they call a 4 element antenna, but to the casual
>> observer looks like it has 6 elements.
>>
>> BTW, Hygain no longer comes up on the MFJ web site. Anybody know if they
>> sold it?
>>
>> Tam/WB2TT
> Hy-Gain (MFJ) web site is working fine for me:
>
> http://www.hy-gain.com/
>
>
I know hy-gain.com works, but you can't simply get to it from
mfjenterprises.com. Used to be able to. If you type in Ameritron or Mirage,
they come up with several choices. Hygain and Hy-gain give you no match. I
did finally get it to work by searching on "rotator", and then clicking on 6
meter beam. This shows Hygain at the top of the page together with
Ameritron, Vectronics, Mirage, and MFJ ( I am not claiming this makes
sense). If you click on "antennas", you only get the MFJ.

Tam/WB2TT

# 2227. Putting a Ferrite Rod at the Far-End of a Random Wire Antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-13 17:24:08 UTC
From: rhf-newsgroups@pacbell.net
Message-ID: <ff3145e8.0411130924.6a68d0be@posting.google.com>
Source record: 86624
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

FO&A,

Here is my Question: Is there any sense in putting a Ferrite Rod
at the Far-End of a Random Wire Antenna with the Wire from the
End of the Wire Antenna Element 'wrapped' around it in a
"Tuned Coil" to improve the AM/MW Band Reception ?

* Any 'theory' behind why this Idea might Work ?

* Does this Idea actually Work ?

* Or is this Idea just so much Antenna 'hype' and Sales Marketing

I am Asking these Questions is because of what I have read about
the RF Systems "EMF" Electro-Magnetic-Field Passive Wire Antenna
http://www.universal-radio.com/catalog/sw_ant/0743.html

In "John Wagner's Shortwave Tips & Tricks" he writes:
http://www.dxing.com/tips.htm
"The EMF antenna has two 35mm film canister looking objects
connected to it. The canister on the Far-End is actually an
excellent "Tuned Ferrite Rod" designed for MW (Medium Wave)
and really helps any receiver without a built in MW Antenna
Rod. Canister two (in middle) is a Balun that helps SW
reception very much."

i want to know ~ RHF
.
.

# 2228. Re: Is it worth it? Will I notice?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-13 17:35:32 UTC
From: "J. Mc Laughlin" <jcm@power-net.net>
Message-ID: <10pchct7pjfn878@corp.supernews.com>
Source record: 86625

A long time ago, when there was not so much man-made noise, I found that in the almost-flat-country at the extreme edges of coverage from a base station to a mobile station, the rate of decrease was roughly one db per statute mile. This was in the 160 MHz range.
The mobile is so far away from the base that the received signal is "noisy." I am considering rural locations and a terrain without significant hills.

On the average, +3db of power at the base provided another 3 miles of (poor quality) coverage. More often than not, coverage was limited by the transmitter power of the mobile and the noise level at the base!

The question asked can start to be answered when one knows the value placed on increased coverage.

73 Mac N8TT
--
J. Mc Laughlin; Michigan U.S.A.
Home: JCM@Power-Net.Net

## 2229. Re: thank you.....

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-13 17:36:30 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <V9-dncNVqKZn2AvcRVn-sw@comcast.com>
Source record: 86626

"carl wesser" <wesser@hiwaay.net> wrote in message
news:10pcbr0le7u1310@corp.supernews.com...
>I wish to thank ALL....I will go back and look @ the elements and try to
>decipher what it is...2 of the trapped elements are exactly the same length
>and look identical...........NO color coding.............it has the square
>horizontal "wire"connectors between the elements..I only see 3 clamp points
>for the elements to the boom....., But the owner said all 4 were attached
>when he took it down,,,,,,,,,,,,each element is fully assembled ,,,,,,,,,
> the elements have a sweged size reducer near the tips......some of the
> traps are about 3 inches in diameter, some are about 1 1/2 " diam..
> it approaches looking like the TA33mu arc
> the search contionues,
> carl
> thank you
>
> fffffffffffffffffffffffffffffffffffffffffffffffffffffffffffff
>
> "All that is Required for Evil to Succeed is for Good Men to DO NOTHING"
>
>
>
It would probably help if you posted the length of the boom and the length
of the longest element. Are you saying there are two driven elements?

Tam/WB2TT

# 2230. Re: Putting a Ferrite Rod at the Far-End of a Random Wire Antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-13 17:52:10 UTC
From: Joel Kolstad <JKolstad71HatesSpam@Yahoo.Com>
Message-ID: <AqGdncw_Faz41AvcRVn-rQ@comcast.com>
Source record: 86627
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

I took a look at the antenna you're describing...

"RHF" <rhf-newsgroups@pacbell.net> wrote in message
news:ff3145e8.0411130924.6a68d0be@posting.google.com...
> * Any 'theory' behind why this Idea might Work ?

My thought would be that, at MW frequencies, the 'wire' part of the antenna is pretty much 'lumped' (no significant phase change along its length), so you have a standard ferrite rod antenna that you're hooking up via a long piece of hookup wire. That's a reasonable enough antenna.

As you approach HF, the 'wire' part of the antenna starts to become active and the two signals combine.

Still, this is very much a 'hands waving' explanation; hopefully someone else will have a more solid response.

> * Does this Idea actually Work ?
> * Or is this Idea just so much Antenna 'hype' and Sales Marketing

I imagine it works as well as either antenna alone (the ferrite rods or the long wire) would, and the real question is... do the two together produce any significant additional gain? I suspect not (much), but even if so, sometimes a wideband standard gain antenna is more desirable than a higher gain single bander.

---Joel

# 2231. Re: Putting a Ferrite Rod at the Far-End of a Random Wire Antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-13 18:18:11 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <fpicp05akhg0ldtb4lieo6ga69iqirnfmb@4ax.com>
Source record: 86628
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

On 13 Nov 2004 09:24:08 -0800, rhf-newsgroups@pacbell.net (RHF) wrote:
>* Any 'theory' behind why this Idea might Work ?

Hi OM,

The age old theory that a sucker is born every minute.

>* Does this Idea actually Work ?

For the guy you are handing $95 to, it does.

>* Or is this Idea just so much Antenna 'hype' and Sales Marketing

AW! You already knew the answers.

>I am Asking these Questions is because of what I have read about
>the RF Systems "EMF" Electro-Magnetic-Field Passive Wire Antenna
>http://www.universal-radio.com/catalog/sw_ant/0743.html

For $95, who would be tempted to clip off that sucker at the end and discover it didn't amount to a hill of beans? Self-fulfilling illusion of value perception.

>In "John Wagner's Shortwave Tips & Tricks" he writes:
>http://www.dxing.com/tips.htm
>"The EMF antenna has two 35mm film canister looking objects
>connected to it. The canister on the Far-End is actually an
>excellent "Tuned Ferrite Rod" designed for MW (Medium Wave)
>and really helps any receiver without a built in MW Antenna
>Rod. Canister two (in middle) is a Balun that helps SW
>reception very much."

Are we to believe John cracked his wallet open to then crack open the film canisters? As far as guesses goes, this is as good as any; but given the techno-drivel that populates the rest of the page, the going doesn't go very far at all.

>i want to know ~ RHF

Ah, but that would cost you $95. You would have to first discover what "designed for MW (Medium Wave)" actually means. Given the manufacturer explicitly states nothing in that regard (devoting most of the coverage to a BalUn) and calls it a "magnetic module."

Consider, if it is "designed for MW (Medium Wave)" then it is neither designed for LW nor SW, and yet the ad clearly states "covering 100 kHz to 30 MHz." Such contradictions are a clear warning with red

lights and flags waving. If it is designed for "covering 100 kHz to 30 MHz," then the doo-hicky at the end is probably more useful as a monkey-fist for tossing it up into a tree.

73's
Richard Clark, KB7QHC

# 2232. Re: Putting a Ferrite Rod at the Far-End of a Random Wire Antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-13 18:28:54 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <4196506e$1_4@127.0.0.1>
Source record: 86629
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

RHF wrote:
> * Any 'theory' behind why this Idea might Work ?

Anything that will increase the current in the wire below top-loading
is a good idea.

> * Does this Idea actually Work ?

I don't know the answer. A ferrite inductor will increase the magnitude
of inductance over an air-core coil and top-loading will increase the
current in the wire part of the antenna. It's an interesting idea
assuming that antennas are reciprocal for transmitting and receiving.
--
73, Cecil, W5DXP

# 2233. Re: Putting a Ferrite Rod at the Far-End of a Random Wire Antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-13 19:07:29 UTC
From: mzenier@eskimo.com
Message-ID: <cn86nh$kc4$1@eskinews.eskimo.com>
Source record: 86663
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

In article <ff3145e8.0411130924.6a68d0be@posting.google.com>,
RHF <rhf-newsgroups@pacbell.net> wrote:
>FO&A,
>
>Here is my Question: Is there any sense in putting a Ferrite Rod
>at the Far-End of a Random Wire Antenna with the Wire from the
>End of the Wire Antenna Element 'wrapped' around it in a
>"Tuned Coil" to improve the AM/MW Band Reception ?
>
>* Any 'theory' behind why this Idea might Work ?
>
>* Does this Idea actually Work ?
>
>* Or is this Idea just so much Antenna 'hype' and Sales Marketing

I'll pick door number 3, Monty.

If the far end of the antenna were grounded there might be some pickup
at the self resonant frequency of the ferrite coil, and it would be
a good DC ground at the far end that might reduce some noise.

If it's not grounded, it's just a convenient weight to toss it into
the trees, because there's no loop in the circuit for any current to be
coupled into, and a small isolated ferrite coil isn't going to produce
a voltage differential to ground that could couple through capacitance.

Mark Zenier mzenier@eskimo.com Washington State resident

# 2234. Re: Opinions on 4NEC2 and 4NEC2X?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-13 20:11:18 UTC
From: Jim <IHateSpam@NoSpam.net>
Message-ID: <ETtld.606$Tu.563@fe39.usenetserver.com>
Source record: 86630

"Wes Stewart" <n7ws_@_yahoo.com> wrote in message
news:be07p0tl3ivc57t9iqneiajpcjv1s96i6j@4ax.com...
> On Wed, 10 Nov 2004 15:02:32 -0500, "Jim" <IHateSpam@NoSpam.net>
> wrote:
>
> |I didn't ask where to get a copy, but what everyone thought of it.
>
> Greatest thing since sliced bread.
>
>
> |

Thanks, Wes.

I assume, since it uses and NEC2 engine, that it has all the pros and cons
of it?

Jim
N8EE

# 2235. Re: Putting a Ferrite Rod at the Far-End of a Random Wire Antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-13 20:41:49 UTC
From: Telamon <telamon_spamshield@pacbell.net.is.invalid>
Message-ID: <telamon_spamshield-47745E.12414913112004@newssvr14-ext.news.prodigy.com>
Source record: 86631
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

In article <AqGdncw_Faz41AvcRVn-rQ@comcast.com>,
"Joel Kolstad" <JKolstad71HatesSpam@Yahoo.Com> wrote:

> I took a look at the antenna you're describing...
>
> "RHF" <rhf-newsgroups@pacbell.net> wrote in message
> news:ff3145e8.0411130924.6a68d0be@posting.google.com...
> > * Any 'theory' behind why this Idea might Work ?
>
> My thought would be that, at MW frequencies, the 'wire' part of the antenna
> is pretty much 'lumped' (no significant phase change along its length), so
> you have a standard ferrite rod antenna that you're hooking up via a long
> piece of hookup wire. That's a reasonable enough antenna.
>
> As you approach HF, the 'wire' part of the antenna starts to become active
> and the two signals combine.
>
> Still, this is very much a 'hands waving' explanation; hopefully someone
> else will have a more solid response.
>
> > * Does this Idea actually Work ?
> > * Or is this Idea just so much Antenna 'hype' and Sales Marketing
>
> I imagine it works as well as either antenna alone (the ferrite rods or the
> long wire) would, and the real question is... do the two together produce
> any significant additional gain? I suspect not (much), but even if so,
> sometimes a wideband standard gain antenna is more desirable than a higher
> gain single bander.

Work is not a very well defined word. The antenna will work in that it
will pick up some signal and deliver it to the radio. I think you mean
to ask how well compared to another antenna.

I pretty much agree with what Joel wrote but add the following
explanation. Any time you add some type of coil to a wire you are
electrically increasing the electrical length over the physical length
of the wire. The coil on the end will cause the wire part of the antenna
to resonate at a lower frequency. This is generally not a good or
effective way to make a sensitive antenna but it will "work."

Generally a wire antenna will pick up a significant amount of signal
energy at frequencies above its electrical length and perform much worse
below its resonate frequency so basically this looks like a attempt to
get a rather short piece of wire (16 feet) to "work" down to a frequency

far below its resonant physical length.

The BALAN coil depending on design could be a good thing in that it will cause the high impedance of the wire to be closer on average to the impedance of the coax cable part of the antenna and the radios input.

--
Telamon
Ventura, California

# 2236. Re: Opinions on 4NEC2 and 4NEC2X?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-13 20:51:16 UTC
From: k3bu@aol.comNoUsama
Message-ID: <20041113155116.08186.00000616@mb-m05.aol.com>
Source record: 86632

>
>I assume, since it uses and NEC2 engine, that it has all the pros and cons
>of it?
>
>Jim
>N8EE
>

It has also optimizer built in. By using MultiNEC, one can go between EZNEC,
4NEC2 and MMANA and doing more investigation and chartiong.

Yuri, K3BU.us

## 2237. in answer to tam/ WB2TT

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-13 22:11:45 UTC
From: carl wesser <wesser@hiwaay.net>
Message-ID: <10pd1l5ntkcvn1c@corp.supernews.com>
Source record: 86633

the boom is about 14 feet, I'm going back and get all sizes..
of the 4 elements ,,2 appear to be identical, although I can only see where
3 elements were attached to boom, the owner said" all 4 "were on boom when
he took it apart
thanks
Carl
fffffffffffffffffffffffff

# 2238. Re: Announcing SmartSmith version 1.5.3

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-13 22:17:41 UTC
From: "NN7Kex<NOSPAM>k7zfg" <"NN7Kex<NOSPAM>k7zfg"@sbcglobal.net>
Message-ID: <9Kvld.41500$QJ3.9314@newssvr21.news.prodigy.com>
Source record: 86634

Bob- that entirely possible-- and b.t.w., downloaded the 1.5.3- and
after deleteing the older version- installed it- no problems. One
other thing- when installing both versions (should have written
them down), there were 3 files, notifying me that my computer had
LATER versions of , already on this system! Tho, don't know if from
windows updates, or from other programs already on this computer.
Kept the newer ones, and seems to run fine (your 1.5.3). Again, thanks.
Jim NN7K
>
>
> Dear Jim,
>
> I have completed a test installation of the ver 1.4 on a Windows XP
> system, and I think I can explain what must have happended during your
> installation. There comes a point in the installation where the
> installer presents a list of different Start->Programs folders for you
> to choose from. By default it shows SmartSmith as the selected folder.
> However, directly below that is the folder "Start Up". I have to
> assume that you inadvertantly selected the "Start Up" folder instead
> of leaving it at the default.
>
>
>
>
> Bob, W9DMK, Dahlgren, VA
> http://www.qsl.net/w9dmk

--
To reply, remove the <NOSPAM>

# 2239. Some notes on UKWtools GPL RF coverage software

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-13 22:39:27 UTC
From: Bob Bob <bcnntp@optusnet.com.au>
Message-ID: <02fi62-9v8.ln1@p400bob.lse.com.au>
Source record: 86635

Mainly posting this so it becomes a record for later lookup by
experimenters.

UKWtools is GPL RF coverage prediction software based on the Longly-Rice
model. It uses a mix of GTOP30/Globe 30 arcsecond data and SRTM 3
arcsecond data (both freely downloadable)

From the website you can download both Windows and Linux packages. -
http://www.qsl.net/g4klx/software.htm

I am not the author of the software!

The notes....

- When I tried to build and install on Suse Linux 9.1 the path plot
function would fail and crash the program. It had worked fine on a
lesser version of SuSE. This appears to be a change in the default
character/language that happened with 9.1. The author mentioned that he
didnt have the same problem with his 9.1 but did say he had compiled his
own WxWidgets. Whatever the case changing the "LANG" variable before
launching the program is a viable workaround. I simply wrote a bash script;

```
#!/bin/sh
LANG=en_GB.ISO-8859-1
cd /usr/local/bin
/usr/local/bin/ukwtools
```

launched that, and the problem went away.. The original LANG variable
was "UTF-8" but since you are only changing it for running this
programme it wont hurt anything.

- Since I am moving to the US early next year I had a look at modifying
the code to use the higher resolution SRTM (1 arcsecond or about 30m
tiles) data available. I found that modifying the two lines in App.cpp
with the SRTM3 grain settings of 1201 to that for SRTM1 (3601), it
seemed to work! Note that it is also possible to change the display
window size (not scalable) to different sizes in Defs.h)

Pls note that I havent fully tested this but the terrain looks correct
and a sample coverage plot seems to conform to terain features around it.

If you wish to respond to this post I will be checking. The reply email
address however is bogus. Just substitute bcnuup for bcnntp.

Cheers Bob VK2YQA

# 2240. Re: DOUBLE RESONANCE IN DIPOLE...THE CAUSE?????

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-13 23:36:02 UTC
From: radio913@aol.com
Message-ID: <1d15af91.0411131536.4c045734@posting.google.com>
Source record: 86636

Richard Clark <kb7qhc@comcast.net> wrote in message
news:<697ap0hqbhdrplt3jknrd9agt67ftnqmm7@4ax.com>...
> On 12 Nov 2004 12:16:27 -0800, radio913@aol.com (Dr. Slick) wrote:
> > Don't take my word for it
> Never entered my mind to do that.
> >...go measure and compare for yourself...
> Been there, done that. Time and tide are not still for the
> expectation of ganja-man's example. :-)
>
>

Like i said, i'm willing to bet money.

But your stubborness and inability
to receive new information has kept you
ignorant this long, so why should you
ever change? Stay the way you are
and always have been...

Slick

# 2241. Re: MP-1 or 2 as mobile antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-13 23:52:29 UTC
From: "Karl Geng, N1DL" <n1dl@arrl.net>
Message-ID: <eYGdnbSKNcSgAgvcRVn-iw@comcast.com>
Source record: 86637

Steve,
I use one on my SUV - also used it on a long trip thru South America with great success.
Recommend you tie a fishing line to it when driving fast on highways.
For stationary use I use the new MFJ 12 foot telescopic top in lieu of the supplied one - it really improves the signal on 20, 30 and 40m. The coil oxidizes after a few
months - at least in my climate. Toothpaste will clean it up quickly. Good antenna.

Karl N1DL VP8DHP

"Steve Ferguson" <stevferg@adelphia.net> wrote in message news:jJidnSm1qbwDvwvcRVn-rA@adelphia.com...
> Does anyone use the MP-1 or MP-2 as a mobile antenna? Does it do well?
> How
> does it weather? thanks for any info...Steve/N$PKJ
>
>

# 2242. Re: DOUBLE RESONANCE IN DIPOLE...THE CAUSE?????

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-14 00:05:35 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <st6dp0pbmc652mhdfbhsac3ttjq3rhhg1t@4ax.com>
Source record: 86638

On 13 Nov 2004 15:36:02 -0800, radio913@aol.com (Dr. Slick) wrote:
> But your stubborness and inability to receive new information
What new information? Time and tide washes over empty claims. :-)

Quit tokin' on your spliff and name a simple "marijuana garden variety
dipole" antenna that outperforms a broadband
Discone
Biconical Dipole
Rhombic
Log Periodic Dipole

73's
Richard Clark, KB7QHC

# 2243. Re: 4 element - Hy-Gain web site

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-14 00:36:35 UTC
From: w9gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <mMxld.334700$wV.209420@attbi_s54>
Source record: 86639

"Tam/WB2TT" <t-tammaru@c0mca$t.net> wrote in message
news:--SdnbCWH6Eg3wvcRVn-pw@comcast.com...
>
> "w9gb" <onw9mapsgb@no.arrl.spam.net> wrote in message
> news:D5qld.81419$HA.72879@attbi_s01...
>> "Tam/WB2TT" <t-tammaru@c0mca$t.net> wrote in message
>> news:x4qdnQPfpPpogwvcRVn-gw@comcast.com...
>>>
>>> I think it was shorter lived than that. I have 1962 and 1964 ham
>>> catlogs, the TH4 is in the 62 (no picture), but not in the 64. By 1964
>>> the TH5 was out. That is not to say they were all sold by 64. I should
>>> have mentioned the Explorer 14, which they call a 4 element antenna, but
>>> to the casual observer looks like it has 6 elements.
>>>
>>> BTW, Hygain no longer comes up on the MFJ web site. Anybody know if they
>>> sold it?
>>>
>>> Tam/WB2TT
>> Hy-Gain (MFJ) web site is working fine for me:
>>
>> http://www.hy-gain.com/
>>
>>
> I know hy-gain.com works, but you can't simply get to it from
> mfjenterprises.com. Used to be able to. If you type in Ameritron or
> Mirage, they come up with several choices. HyGain and Hy-Gain give you no
> match. I did finally get it to work by searching on "rotator", and then
> clicking on 6 meter beam. This shows Hygain at the top of the page
> together with Ameritron, Vectronics, Mirage, and MFJ ( I am not claiming
> this makes sense). If you click on "antennas", you only get the MFJ.
>
>
> Tam/WB2TT
Tam -

Yes, I noticed this a few months ago.
I also noticed the problem with Ameritron amplifiers at one point - but this
may have been changed.

w9gb

# 2244. Re: in answer to tam/ WB2TT

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-14 00:40:19 UTC
From: w9gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <TPxld.334711$wV.246309@attbi_s54>
Source record: 86640

"carl wesser" <wesser@hiwaay.net> wrote in message
news:10pd1l5ntkcvn1c@corp.supernews.com...
> the boom is about 14 feet, I'm going back and get all sizes..
> of the 4 elements ,,2 appear to be identical, although I can only see
> where
> 3 elements were attached to boom, the owner said" all 4 "were on boom when
> he took it apart
> thanks
> Carl
> fffffffffffffffffffffffff
>
Carl -

Actually, the antenna mounting hardware (boom to mast) and elements to boom
are usually give-aways -- as to who made the antenna. Another area to
carefully visually inspect is the matching system between coax / balun and
driven element.

Greg
w9gb

# 2245. Re: Announcing SmartSmith version 1.5.3

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-14 01:12:31 UTC
From: w9dmk@crosslink.net
Message-ID: <4196b037.8106656@news.crosslink.net>
Source record: 86643

On Sat, 13 Nov 2004 22:17:41 GMT, "NN7Kex<NOSPAM>k7zfg"
<"NN7Kex<NOSPAM>k7zfg"@sbcglobal.net> wrote:

>Bob- that entirely possible-- and b.t.w., downloaded the 1.5.3- and
>after deleteing the older version- installed it- no problems. One
>other thing- when installing both versions (should have written
>them down), there were 3 files, notifying me that my computer had
>LATER versions of , already on this system! Tho, don't know if from
>windows updates, or from other programs already on this computer.
>Kept the newer ones, and seems to run fine (your 1.5.3). Again, thanks.
>Jim NN7K

OK, Jim - all's well that ends well. BTW, it is normal that such files
as the ones from my Win 2000 system might be older than those on a
Windows XP system. I do all of my development on Win 2000 Server, and
it preceded Window XP by a year or two.

Good luck, and be sure to let us know if there are any other
questions, bugs, etc.

There will be a new release within a week or so, if the beta testing
goes well.

Bob, W9DMK, Dahlgren, VA
http://www.qsl.net/w9dmk

# 2246. Re: Antenna trap rubber caps...options

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-14 02:18:52 UTC
From: Topaz305RK <k7sam@arrl.net>
Message-ID: <JZmdndGU5M7RXQvcRVn-gA@vnet-inc.com>
Source record: 86641

If they are just rotted and not completely gone how about a nice thick coat of liquid electricians tape, Gods gift to amateur radio.

K7SAM

# 2247. Re: Putting a Ferrite Rod at the Far-End of a Random Wire Antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-14 02:22:46 UTC
From: k9sqg@aol.com
Message-ID: <20041113212246.07087.00000591@mb-m10.aol.com>
Source record: 86642

This should have no effect on reception.

# 2248. Re: DOUBLE RESONANCE IN DIPOLE...THE CAUSE?????

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-14 04:11:52 UTC
From: Lee Hopper <leehopp@centurytel.net>
Message-ID: <846dnTUNKKWURgvcRVn-ug@centurytel.net>
Source record: 86644

Along those same lines: did you swap a metal mast for a fiberglass one?

NB7F
antenna boy

# 2249. Re: Antenna trap rubber caps...options

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-14 04:31:50 UTC
From: Gary Schafer <gaschafer@comcast.net>
Message-ID: <gtndp0poqefd7k6433gut1iuv2b46bedal@4ax.com>
Source record: 86645

Hi Kirk,

What the others are pointing you to are just plain caps that would be
suitable for the end of the antenna elements, not the trap caps that I
think you are looking for.

I think I have a full set of them here. A couple of years ago I
ordered them from Hy gain. (not cheap!)

In disassembling the elements to replace the caps I found that all the
inside insulators in the traps were rotten too. The antenna was shot.
The cost of the new plastic inside insulators was horrendous. I stuck
the whole thing in the garage. Never did install the new caps. They
are in a box somewhere in the garage. Incidentally the antenna had
been stored inside for about 20 years, where all the plastic just
rotted.

Let me know if you are interested in them. Email me at
garyschafer@comcast.net.

On Fri, 12 Nov 2004 21:05:14 -0800, "Kirk Mohror"
<kmohror@comcast.net> wrote:

>I have a Hy-Gain TH-3MK3 (Thunderbird) and the rubber end caps for the traps
>have weather rotted.
>Does anyone have a sugestion for an alternative or a quick fix for
>replacements.
>I know, I can order them through Hy-Gain. I do have some time issues.
>
>Thanks,
>Kirk
>K7EKM
>

# 2250. WANTED: Mosley Mini-33 Tribander Yagi

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-14 04:39:25 UTC
From: Roland S Geter Sr <NoSpam@NoSpam.com>
Message-ID: <bkBld.25218$NC6.2309@newsread1.mlpsca01.us.to.verio.net>
Source record: 86646
Cross-posted to: rec.radio.amateur.antenna,rec.radio.swap

Will pay cash and pick-up or shipping the subject antenna.
Reply to roland@geter.org or call 866-ROLANDG
Roland S Geter Sr - WB6LNA

# 2251. Re: Putting a Ferrite Rod at the Far-End of a Random Wire Antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-14 04:41:52 UTC
From: rhf-newsgroups@pacbell.net
Message-ID: <ff3145e8.0411132041.6495255@posting.google.com>
Source record: 86647
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

JK, RC and CM,

I want to Thank Each of You for your replies to this question.

Note: I am only talking about a SWL "Receive Only" Antenna here.

I suspect that may be one reason that this Far-End Loaded AM/MW Coil may work is the fact that the RF Systems EMF Antenna is 'only' Sixteen Feet (16') Long; and the Two Inch to Three Inch (2"-3") Ferrite Rod at the End of the Wire Antenna Element does have some 'measurable effect' on improving the AM/MW Frequency Band performance of such a short Antenna.
- Relative Size may be the Controlling Factor for this 'unique' small Antenna

? ? Would this 'trick' work with a Larger {Longer} SWL Antenna ? ?

My more specific point of interest would be in whether using a Ferrite Rod with the Wire Antenna Element Wrapped as a AM/MW Coil around it would have some meaningful effect on a Horizontal Random Wire Antenna that was 75-100 Feet long.
- For a Horizontal Random Wire Antenna ?WHY? 'place' the Ferrite Rod at the Far-End of the Wire Antenna Element ?
- Why not 'place' the Ferrite Rod near the Feed-Point-End ?
- Why not 'place' the Ferrite Rod near the Middle ?
- Why not 'place' the Ferrite Rod near the slightly Off-Center 38%/62% like a Windom ?

What about a "Low Noise' Inverted "L" Antenna that is 45-100 Feet long. For an Inverted "L" Antenna ?WHY? not 'place' the Ferrite Rod at the "Top" of the Vertical Leg where the Antenna Wire Element transitions from Vertical to Horizontal ?
- 15 Feet Up Ferrite Rod AM/MW Ferrite Coil and 30 Feet Out.
- 20 Feet Up Ferrite Rod AM/MW Ferrite Coil and 40 Feet Out.
- 25 Feet Up Ferrite Rod AM/MW Ferrite Coil and 50 Feet Out.
- 33 Feet Up Ferrite Rod AM/MW Ferrite Coil and 67 Feet Out.
Or again here would having the Ferrite Rod and Coil at the Far-End work some 'magic' trick ? and Why ?

in search of some ideas and answers ~ RHF
.
.
= = = rhf-newsgroups@pacbell.net (RHF) wrote in message
= = = news:<ff3145e8.0411130924.6a68d0be@posting.google.com>...
> FO&A,

>
> Here is my Question: Is there any sense in putting a Ferrite Rod
> at the Far-End of a Random Wire Antenna with the Wire from the
> End of the Wire Antenna Element 'wrapped' around it in a
> "Tuned Coil" to improve the AM/MW Band Reception ?
>
> * Any 'theory' behind why this Idea might Work ?
>
> * Does this Idea actually Work ?
>
> * Or is this Idea just so much Antenna 'hype' and Sales Marketing
>
> I am Asking these Questions is because of what I have read about
> the RF Systems "EMF" Electro-Magnetic-Field Passive Wire Antenna
> http://www.universal-radio.com/catalog/sw_ant/0743.html
>
> In "John Wagner's Shortwave Tips & Tricks" he writes:
> http://www.dxing.com/tips.htm
> "The EMF antenna has two 35mm film canister looking objects
> connected to it. The canister on the Far-End is actually an
> excellent "Tuned Ferrite Rod" designed for MW (Medium Wave)
> and really helps any receiver without a built in MW Antenna
> Rod. Canister two (in middle) is a Balun that helps SW
> reception very much."
>
>
> i want to know ~ RHF
> .
> .

# 2252. Re: Putting a Ferrite Rod at the Far-End of a Random Wire Antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-14 05:57:46 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <1jrdp01kjdl0u9rceblo224hac1hj19rq1@4ax.com>
Source record: 86648
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

On 13 Nov 2004 20:41:52 -0800, rhf-newsgroups@pacbell.net (RHF) wrote:

>JK, RC and CM,
>
>I want to Thank Each of You for your replies to this question.
>
>Note: I am only talking about a SWL "Receive Only" Antenna here.

Hi OM,

As were the answers (with possibly one exception).

>I suspect that may be one reason that this Far-End Loaded AM/MW
>Coil may work is the fact that the RF Systems EMF Antenna is
>'only' Sixteen Feet (16') Long; and the Two Inch to Three Inch
>(2"-3") Ferrite Rod at the End of the Wire Antenna Element does
>have some 'measurable effect' on improving the AM/MW Frequency
>Band performance of such a short Antenna.
>- Relative Size may be the Controlling Factor for this 'unique'
>small Antenna
>
>? ? Would this 'trick' work with a Larger {Longer} SWL Antenna ? ?

Let's approach this from the usual perspective. Many SWLrs posting here already have the ferrite antenna in their receiver and come here for a boost in signals. The fact that it is so easily accomplished by the addition of that same 16 feet of random wire tossed across the living room rug would suggest just how much contribution is found in the ferrite antenna.

Let's put some numbers to it. With the ferrite antenna a DX station comes in S3, replace it with the wire and it climbs to S7. So, if we start with just the wire antenna with the same signal at S7, and adding the ferrite to pump up da volume to S7+ would this be worth $95 to you? What if by simply adding 6" more wire to the 16 feet gave you that same +?

As a product, it is incredibly cheesy to boot. Look at that clunky pl259 at the end of rg174. C'mon now, are we talking about your granddad's RCA Victor this sucker is going to plug into? That and the lead-in is only 16 feet in its own right? How much profit would be lost to give you a decent length of wire and lead-in?

>My more specific point of interest would be in whether using a
>Ferrite Rod with the Wire Antenna Element Wrapped as a AM/MW
>Coil around it would have some meaningful effect on a Horizontal

>Random Wire Antenna that was 75-100 Feet long.
>- For a Horizontal Random Wire Antenna ?WHY? 'place' the
>Ferrite Rod at the Far-End of the Wire Antenna Element ?
>- Why not 'place' the Ferrite Rod near the Feed-Point-End ?
>- Why not 'place' the Ferrite Rod near the Middle ?
>- Why not 'place' the Ferrite Rod near the slightly Off-Center
>38%/62% like a Windom ?

This at least suggests a more practicable study. Loading coils don't do very much without some form of capacitance above them to draw the current. Putting a coil at the top is a fruitless exercise. It may offer to "tune" but it sure won't sing.

73's
Richard Clark, KB7QHC

## 2253. Ringo Ranger II

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-14 07:25:12 UTC
From: Harbin <harbinjr@adelphia.net>
Message-ID: <m_GdnagynojFlQrcRVn-iw@adelphia.com>
Source record: 86649

Howdy Y'all:
Chushcraft says that the Ringo Ranger II is the latest design featuring three 5/8 wave radiating elements and an adjustable 1/8 wave phasing stub. My question is why a 1/8 phasing stub? Should it be more like 3/8 or somthing, and why only
one phasing stub, should there not be 2? And is the outside of the coax that comes from the ground plane a radiating
element? This antenna has me scratching my head, any ideas?

Harbin

# 2254. Re: DOUBLE RESONANCE IN DIPOLE...THE CAUSE?????

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-14 12:10:05 UTC
From: radio913@aol.com
Message-ID: <1d15af91.0411140410.36f6b41@posting.google.com>
Source record: 86650

Richard Clark <kb7qhc@comcast.net> wrote in message
news:<st6dp0pbmc652mhdfbhsac3ttjq3rhhg1t@4ax.com>...
> On 13 Nov 2004 15:36:02 -0800, radio913@aol.com (Dr. Slick) wrote:
> > But your stubborness and inability to receive new information
> What new information? Time and tide washes over empty claims. :-)
>

So the time and tide will wash over your
empty brain too!

> Quit tokin' on your spliff and name a simple "marijuana garden variety
> dipole" antenna that outperforms a broadband
> Discone
> Biconical Dipole
> Rhombic
> Log Periodic Dipole
>

Don't need to. "Jack of all trades and master of
none" applies to broadband amplifiers AND antennas as
well.

S.

# 2255. Re: Need Near Field equations problems

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-14 12:26:03 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <r24ap05qqdaa1ge6vdf4ioibqhvjf378tk@4ax.com>
Source record: 86651
Cross-posted to: sci.physics.electromag,sci.physics.research,sci.physics,rec.radio.amateur.antenna

On Fri, 12 Nov 2004 19:07:34 +0000 (UTC), curiousjohn4@yahoo.com
(curiousjohn4) wrote:
> In fact, there was significant induced voltage from a very long wire.

Hi OM,

You are treading water here. There is more than radiation at work
very close to an antenna. Consider your own language above: Induction
(or even capacitive coupling).

73's
Richard Clark, KB7QHC

# 2256. Re: Putting a Ferrite Rod at the Far-End of a Random Wire Antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-14 14:42:51 UTC
From: rhf-newsgroups@pacbell.net
Message-ID: <ff3145e8.0411140642.71210f26@posting.google.com>
Source record: 86652
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

= = = Richard Clark <kb7qhc@comcast.net> wrote in message
= = = news:<1jrdp01kjdl0u9rceblo224hac1hj19rq1@4ax.com>...
> On 13 Nov 2004 20:41:52 -0800, rhf-newsgroups@pacbell.net (RHF) wrote:
>
> >JK, RC and CM,
> >
> >I want to Thank Each of You for your replies to this question.
> >
> >Note: I am only talking about a SWL "Receive Only" Antenna here.
>
> Hi OM,
>
> As were the answers (with possibly one exception).
>
> >I suspect that may be one reason that this Far-End Loaded AM/MW
> >Coil may work is the fact that the RF Systems EMF Antenna is
> >'only' Sixteen Feet (16') Long; and the Two Inch to Three Inch
> >(2"-3") Ferrite Rod at the End of the Wire Antenna Element does
> >have some 'measurable effect' on improving the AM/MW Frequency
> >Band performance of such a short Antenna.
> >- Relative Size may be the Controlling Factor for this 'unique'
> >small Antenna
> >
> >? ? Would this 'trick' work with a Larger {Longer} SWL Antenna ? ?
>
> Let's approach this from the usual perspective. Many SWLrs posting
> here already have the ferrite antenna in their receiver and come here
> for a boost in signals. The fact that it is so easily accomplished by
> the addition of that same 16 feet of random wire tossed across the
> living room rug would suggest just how much contribution is found in
> the ferrite antenna.

My target receivers are my Kenwood R-5000, Icom IC-R75, and
Grundig Satellit 800 M. Note with the Grundig Satellit 800 M
when the SO-239 is switch on to use the External Antenna the
'internal' AM/MW Ferrite Rod Antenna is disconnected.

>
> Let's put some numbers to it. With the ferrite antenna a DX station
> comes in S3, replace it with the wire and it climbs to S7. So, if we
> start with just the wire antenna with the same signal at S7, and
> adding the ferrite to pump up da volume to S7+ would this be worth $95
> to you? What if by simply adding 6" more wire to the 16 feet gave you
> that same +?

>

Not worried about the cost since this would be a 'home-brewed'
Antenna with parts I already have.

Looking to add a little more signal to the AM/MW Band area for
improved Weak Signal DXing from the Inverted "L" Antennas.

> As a product, it is incredibly cheesy to boot. Look at that clunky
> pl259 at the end of rg174. C'mon now, are we talking about your
> granddad's RCA Victor this sucker is going to plug into? That and the
> lead-in is only 16 feet in its own right? How much profit would be
> lost to give you a decent length of wire and lead-in?
>
> >My more specific point of interest would be in whether using a
> >Ferrite Rod with the Wire Antenna Element Wrapped as a AM/MW
> >Coil around it would have some meaningful effect on a Horizontal
> >Random Wire Antenna that was 75-100 Feet long.
> >- For a Horizontal Random Wire Antenna ?WHY? 'place' the
> >Ferrite Rod at the Far-End of the Wire Antenna Element ?
> >- Why not 'place' the Ferrite Rod near the Feed-Point-End ?
> >- Why not 'place' the Ferrite Rod near the Middle ?
> >- Why not 'place' the Ferrite Rod near the slightly Off-Center
> >38%/62% like a Windom ?
>
> This at least suggests a more practicable study. Loading coils don't
> do very much without some form of capacitance above them to draw the
> current. Putting a coil at the top is a fruitless exercise. It may
> offer to "tune" but it sure won't sing.
>
> 73's
> Richard Clark, KB7QHC

RC,

I have the two Inverted "L" Antennas and about a dozen 10mm X 200mm
Ferrite Rods to play with. So for me it is a matter of De-Rigging
the Antennas; winding the Antennna Wire on the Ferrite Rod; and
Re-Rigging the Antennas.

Doing a dry run with an extra piece of Antenna Wire; I can get
about Nine Turns per Inch; which would be 63 Turns uniformally
wrapped evenly over 90% of the Ferrite Rod.

So my 'focus' is on a "Low Noise' Inverted "L" Antenna that is
100 Feet long. Placing the Ferrite Rod at the "Top" of the
Vertical Leg where the Antenna Wire Element transitions from
Vertical to Horizontal. Rig the Antenna Wire Element with 33
Feet Up to the Ferrite Rod AM/MW Ferrite Coil and then have 67
Feet Out to the Far-End. Would this possibly work any better
then having the Ferrite Rod and Coil at the Far-End ? and Why ?

In my 'imagination' for the AM/MW Broadcast Band; the Vertical Up-Leg would act like an Omni-Directional "Tuned" Vertical Antenna (since the Ferrite Rod would be Vertical); with the Horizontal Out-Arm of the Antenna acting like a Top Hat for the Vertical. Then at the Shortwave Frequencies the 'effects' of the Ferrite Rod would become less and the Antenna would simply act as a normal SWL'ers Inverted "L" Antenna.

Now here is another thought; would having the Ferrite Rod with the Antenna Wire wrapped around it at the Far-End of the Horizontal Antenna Element cause the AM/MW Broadcast Band reception to be Directional 'Off-the-Sides' of the Inverted "L" Antenna ? ? ?

in search of some ideas and answers ~ RHF
.
.

# 2257. Re: Putting a Ferrite Rod at the Far-End of a Random Wire Antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-14 14:43:37 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41976d20$1_1@127.0.0.1>
Source record: 86653
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

RHF wrote:
> JK, RC and CM,
> I suspect that may be one reason that this Far-End Loaded AM/MW
> Coil may work is the fact that the RF Systems EMF Antenna is
> 'only' Sixteen Feet (16') Long; and the Two Inch to Three Inch
> (2"-3") Ferrite Rod at the End of the Wire Antenna Element does
> have some 'measurable effect' on improving the AM/MW Frequency
> Band performance of such a short Antenna.

Yes, I was assuming you had a short antenna and wanted to load
it. The reason for loading a short antenna is to increase its
electrical length closer to resonance and the benefits are much
more pronounced for transmitted signals. Most modern HF receivers
have enough gain to make up for a less than optimum antenna.

Loading a long wire antenna doesn't make much sense.
--
73, Cecil, W5DXP

# 2258. Re: Opinions on 4NEC2 and 4NEC2X?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-14 15:04:35 UTC
From: Dan Richardson <dwr@mailinator.com>
Message-ID: <8lsep0hukrqm5gktlthg94tdejp68ou8tm@4ax.com>
Source record: 86654

On 13 Nov 2004 20:51:16 GMT, k3bu@aol.comNoUsama (Yuri Blanarovich)
wrote:

>
>It has also optimizer built in. By using MultiNEC, one can go between EZNEC,
>4NEC2 and MMANA and doing more investigation and chartiong.
>
>Yuri, K3BU.us

Actually, MultiNEC allows you to switch between EZNEC, NEC WinPlus+,
4NEC2, Antenna Model, EZNECpro, GNEC, or the standard NEC2 or NEC4
engines. MultiNEC will read MMANA files but not use its calculating
engine.

Danny,
K6MHE

# 2259. Re: MP-1 or 2 as mobile antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-14 15:08:36 UTC
From: Steve Ferguson <stevferg@adelphia.net>
Message-ID: <haSdnSxvJqoz6QrcRVn-oQ@adelphia.com>
Source record: 86655

Karl: Was that an MP-1 or an MP-2 you were using...Thanks..Steve/N4PKJ

"Karl Geng, N1DL" <n1dl@arrl.net> wrote in message
news:eYGdnbSKNcSgAgvcRVn-iw@comcast.com...
> Steve,
> I use one on my SUV - also used it on a long trip thru South America with
> great success.
> Recommend you tie a fishing line to it when driving fast on highways.
> For stationary use I use the new MFJ 12 foot telescopic top in lieu of the
> supplied one - it really improves the signal on 20, 30 and 40m. The coil
> oxidizes after a few
> months - at least in my climate. Toothpaste will clean it up quickly. Good
> antenna.
>
> Karl N1DL VP8DHP
>
>
> "Steve Ferguson" <stevferg@adelphia.net> wrote in message
> news:jJidnSm1qbwDvwvcRVn-rA@adelphia.com...
> > Does anyone use the MP-1 or MP-2 as a mobile antenna? Does it do well?
> > How
> > does it weather? thanks for any info...Steve/N$PKJ
> >
> >
>
>

# 2260. 6 meter stacked halo ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-14 15:31:39 UTC
From: DOUGLAS SNOWDEN <SNOWDEN@peoplepc.com>
Message-ID: <vTKld.16043$Gm6.12656@newsread3.news.atl.earthlink.net>
Source record: 86656

I was talking to a guy (forgot his call) that said he uses
some sort of commerically made antenna for 6m that
is a pair of stacked loops that givee omni pattern of
about 6db or so. What is this antenna?

Doug, N4IJ

# 2261. Re: Ringo Ranger II

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-14 15:33:46 UTC
From: Howard <mensch90249@yahoo.com>
Message-ID: <4euep09o68db8evekqsi58eotjpf9nbfnt@4ax.com>
Source record: 86657

On Sat, 13 Nov 2004 23:25:12 -0800, "Harbin" <harbinjr@adelphia.net>
wrote:

>Howdy Y'all:
>Chushcraft says that the Ringo Ranger II is the latest design featuring
>three 5/8 wave radiating elements and an adjustable 1/8 wave phasing stub.
>My question is why a 1/8 phasing stub? Should it be more like 3/8 or
>somthing, and why only
>one phasing stub, should there not be 2? And is the outside of the coax that
>comes from the ground plane a radiating
>element? This antenna has me scratching my head, any ideas?
>
>Harbin
>
Sounds like marketing in action; I'd call it a two element colinear
with a decoupling section at the bottom. Just for giggles, what gain
does Witchcraft claim?
Howard

# 2262. Re: Ringo Ranger II

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-14 15:53:49 UTC
From: Jim Leder <k8cxm@hotmail.com>
Message-ID: <hcLld.1494$%Z.609@fe37.usenetserver.com>
Source record: 86658

Cushcraft claims 7 dbi gain. True or not, it was the best omni directional 2 meter antenna I've ever used. A wayward tree limb turned it into pieces of aluminum tubing, but it WAS 25 years old and had been struck by lighting once. I got my $35 worth out of it. I now use a Diamond X50, not quite as good, but not bad.

"Howard" <mensch90249@yahoo.com> wrote in message news:4euep09o68db8evekqsi58eotjpf9nbfnt@4ax.com...
> On Sat, 13 Nov 2004 23:25:12 -0800, "Harbin" <harbinjr@adelphia.net>
> wrote:
>
>>Howdy Y'all:
>>Chushcraft says that the Ringo Ranger II is the latest design featuring
>>three 5/8 wave radiating elements and an adjustable 1/8 wave phasing stub.
>>My question is why a 1/8 phasing stub? Should it be more like 3/8 or
>>somthing, and why only
>>one phasing stub, should there not be 2? And is the outside of the coax
>>that
>>comes from the ground plane a radiating
>>element? This antenna has me scratching my head, any ideas?
>>
>>Harbin
>>
> Sounds like marketing in action; I'd call it a two element colinear
> with a decoupling section at the bottom. Just for giggles, what gain
> does Witchcraft claim?
> Howard

# 2263. Re: Putting a Ferrite Rod at the Far-End of a Random Wire Antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-14 16:00:47 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <PiLld.28738$Qv5.24343@newssvr33.news.prodigy.com>
Source record: 86659
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

RHF,
Since you already have the items needed, why not give it a try?
The most you would loose would be the time/effort to 'de-rig' your
other antenna.
'Doc

PS - Without looking at the site mentioned, I tend to agree
with Richard. Sounds a lot like 'snake oil'. Which ain't
'bad', if you're selling 'snake oil'...

# 2264. Re: Putting a Ferrite Rod at the Far-End of a Random Wire Antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-14 17:07:55 UTC
From: r2000swler@hotmail.com
Message-ID: <d17275c.0411140907.cfa8b4f@posting.google.com>
Source record: 86660
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

rhf-newsgroups@pacbell.net (RHF) wrote in message
news:<ff3145e8.0411130924.6a68d0be@posting.google.com>...
> FO&A,
>
> Here is my Question: Is there any sense in putting a Ferrite Rod
> at the Far-End of a Random Wire Antenna with the Wire from the
> End of the Wire Antenna Element 'wrapped' around it in a
> "Tuned Coil" to improve the AM/MW Band Reception ?
>
> * Any 'theory' behind why this Idea might Work ?
>
> * Does this Idea actually Work ?
>
> * Or is this Idea just so much Antenna 'hype' and Sales Marketing
>
> I am Asking these Questions is because of what I have read about
> the RF Systems "EMF" Electro-Magnetic-Field Passive Wire Antenna
> http://www.universal-radio.com/catalog/sw_ant/0743.html
>
> In "John Wagner's Shortwave Tips & Tricks" he writes:
> http://www.dxing.com/tips.htm
> "The EMF antenna has two 35mm film canister looking objects
> connected to it. The canister on the Far-End is actually an
> excellent "Tuned Ferrite Rod" designed for MW (Medium Wave)
> and really helps any receiver without a built in MW Antenna
> Rod. Canister two (in middle) is a Balun that helps SW
> reception very much."
>
>
> i want to know ~ RHF
> .
> .

Back in 1965, when I was 14, I tried many variations on
"Long Wire" antennas. Given my parents back yard was about 60'
wide and 120'long, it is clear that they weren't really "long" at
any freqeuncy below 30MHz.
My uncle gave me some variable caps, Air-dux and two large,3/4"X16"
ferrite rods. I tried wrapping wire around the ferrite and, except
for short, 10' wire antennas, with the rod between the antenna and the
receiver the rod made no differnce. None. And nothing worked as well
as my "standard" 96' wire antenna. I did make some dipoles cut for WWV
on 10 and 15MHZ and they were slightly better in receiving WWVH then

the 96' wire antenna. They made no difference on WWV.
I was able to build a match box with Air-dux and the caps and that really
helped. The radio was a Zenith SW that died that fall. The LO coil developed a short between the primary and secondary and Dad could not find a replacement part. So, for a late birthday present my mom and dad
bought me a Heathkit GR64. It was a gaint step in that it had a "S-meter".
I even tried a antenna reciever matching transformer suggested by an article in Radio-Electronics. Which did not work. It consisted of two air coupled windings sheilded in a soup can. I wish I had known about transformer deisign that John Doty came up with. Dad also bought me a ARRL handbook and I started to understand that antennas where not complete magic.
Just 99%!
Save your maoney and just put up the longest wire you can, be carefull to
keep it well away from noise sources. John Doty's suggestions for a "low
noise" antenna are a good palce to start. Works very well and it is very cheap.
Terry

# 2265. Re: DOUBLE RESONANCE IN DIPOLE...THE CAUSE?????

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-14 17:10:27 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <dd3fp0tl4qnlmvmaik545l2oicdbb8ie24@4ax.com>
Source record: 86661

On 14 Nov 2004 04:10:05 -0800, radio913@aol.com (Dr. Slick) wrote:
> Don't need to. "Jack of all trades and master of
>none"
How apropos.

Are you still enjoying the legs (stumps actually) on this Lee? Time
and tide wasn't waiting for a response to your posts either. Perhaps
you might attract an answer if you put it in the format of 20
questions:
Is it bigger than a breadbox? :-)

73's
Richard Clark, KB7QHC

# 2266. Re: in answer to tam/ WB2TT

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-14 17:37:40 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <y72dncc5fKUjCgrcRVn-oQ@comcast.com>
Source record: 86662

"carl wesser" <wesser@hiwaay.net> wrote in message
news:10pd1l5ntkcvn1c@corp.supernews.com...
> the boom is about 14 feet, I'm going back and get all sizes..
> of the 4 elements ,,2 appear to be identical, although I can only see
> where
> 3 elements were attached to boom, the owner said" all 4 "were on boom when
> he took it apart
> thanks
> Carl
> fffffffffffffffffffffffff
>
OK, that would rule out the CushCraft A4, because it is on an 18 foot boom. I found out that the TH4 uses 3 elements on 15/20, and 4 elements on 10. So, one of the elements would not have a trap. But, the TH3 is on a 14 foot boom, which seems to make it unlikely that the TH4 is also.

I wonder if the guy you got it from knows what he is talking about. If it looks like there were only 3 elements, that could well be the case. I recommend going to www.hy-gain.com and downloading the TH3 manual, to see if what you got is similar. Also, that might explain the rods parallel to the boom that you mentioned. I have the TH3 Mk4, and what you described earlier sounds like the hairpin match.

Tam/WB2TT

# 2267. Re: Need Near Field equations problems

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-14 17:59:24 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10pdnsd28opshe9@corp.supernews.com>
Source record: 86665
Cross-posted to: sci.physics.electromag,sci.physics.research,sci.physics,rec.radio.amateur.antenna

curiousjohn4 wrote:

> Could someone please provide a correct near field equation that a
> computer programmer can understand? I'm using the following equation
> in a simple simulation but it's not working in all cases.
>
> E = a * sin(theta) * q / ( 4 * pi * e * c^2 * r )

I don't know where you got that equation, but I'm not surprised it's not giving the right answer. In the near field, there are components inversely proportional to r, r^2, and r^3. The equations are too complex to easily write in ASCII, and the terms require some definition. But you can find the relevant equations in Jordan & Balmain, _Electromagnetic Waves and Radiating Systems_, eq. 10-41 and 10-42; Kraus, _Electromagnetics_, eq. 13-49 and 13-50; Johnk, _Engineering Electromagnetic Fields and Waves_, eq. 11-41a and 11-41b; or most other electromagnetics and some antenna texts. Note that two equations are given, one for the radial component and another for the circular (theta) component, which decay at different rates as the distance from the current element increases.

Roy Lewallen, W7EL

# 2268. Re: 6 meter stacked halo ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-14 18:14:36 UTC
From: Howard <mensch90249@yahoo.com>
Message-ID: <bh7fp0p0ofc3c4trejparhuelim73vnd89@4ax.com>
Source record: 86664

On Sun, 14 Nov 2004 15:31:39 GMT, "DOUGLAS SNOWDEN"
<SNOWDEN@peoplepc.com> wrote:

>I was talking to a guy (forgot his call) that said he uses
>some sort of commerically made antenna for 6m that
>is a pair of stacked loops that givee omni pattern of
>about 6db or so. What is this antenna?
>
>Doug, N4IJ
>
Doug,
Could be one of several depending on when they were purchased or made.
AEA made a 6 meter loop until the later 90's; though I was never too
impressed with it. Have spoken on the air with a couple of guys who
use the KB6KQ as a mobile antenna and they had a decent signal and
indicated the antenna holds up quite well mobile. The three current
vendors I know of are shown below - don't think you'd get a bad
antenna from any of them, they are reputable operations.
PAR Electronics http://www.parelectronics.com/omnis.htm
M2 http://www.m2inc.com/index2.html
KB6KQ http://www.kb6kq.com/index.html

Howard

# 2269. Re: in answer to tam/ WB2TT

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-14 19:00:11 UTC
From: w9gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <_WNId.337503$wV.57959@attbi_s54>
Source record: 86666

"carl wesser" <wesser@hiwaay.net> wrote in message
news:10pd1l5ntkcvn1c@corp.supernews.com...
> the boom is about 14 feet, I'm going back and get all sizes..
> of the 4 elements ,,2 appear to be identical, although I can only see
> where
> 3 elements were attached to boom, the owner said" all 4 "were on boom when
> he took it apart
> thanks
> Carl
> ==========
>
Tam has a good point, since the Hy-Gain TH3 has a 14 foot boom, you can
start with its manual (adobe acrobat)
http://www.hy-gain.com/man/pdf/TH-3MK4.pdf

Hy-gain now calls the "hairpin match" a beta match (the match does make a
"fourth" connection to the boom) - this match has changed a bit from early
models. Also remember that the TH3 does not have a supplied balun.
Again, pay close attention to the type of brackets, swaging, etc. in the
manual versus your parts This should identify it as a HyGain antenna

w9gb

# 2270. Re: 6 meter stacked halo ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-14 19:06:18 UTC
From: w9gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <o0Old.96790$R05.81966@attbi_s53>
Source record: 86667

"DOUGLAS SNOWDEN" <SNOWDEN@peoplepc.com> wrote in message
news:vTKld.16043$Gm6.12656@newsread3.news.atl.earthlink.net...
>I was talking to a guy (forgot his call) that said he uses
> some sort of commerically made antenna for 6m that
> is a pair of stacked loops that givee omni pattern of
> about 6db or so. What is this antenna?
>
> Doug, N4IJ
>

http://www.lightningboltantennas.com/vhf_halo_antennas.htm

Allow time for the photos to load
http://www.bigskyspaces.com/w7gj/vhf.htm

http://www.intac.com/~mherson/uc2000.htm

# 2271. Test Post

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-14 20:25:14 UTC
From: Frank <ve6cb@NOSPAM.telus.net>
Message-ID: <KaPld.85781$E93.3272@clgrps12>
Source record: 86668

Had problems posting a response to the near field equations, but did not take. Don't know what I am doing wrong.

Frank

# 2272. Re: Need Near Field equations problems

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-14 20:27:25 UTC
From: Frank <ve6cb@NOSPAM.telus.net>
Message-ID: <NcPld.85784$E93.68023@clgrps12>
Source record: 86669

```
"Frank" <ve6cb@NOSPAM.telus.net> wrote in message news:...
> Funny, posted this earlier, but did not seem to take.
>
> "Frank" <ve6cb@NOSPAM.telus.net> wrote in message news:...
>> "Richard Clark" <kb7qhc@comcast.net> wrote in message
>> news:r24ap05qqdaa1ge6vdf4ioibqhvjf378tk@4ax.com...
>>> On Fri, 12 Nov 2004 19:07:34 +0000 (UTC), curiousjohn4@yahoo.com
>>> (curiousjohn4) wrote:
>>>> In fact, there was significant induced voltage from a very long wire.
>>>
>>> Hi OM,
>>>
>>> You are treading water here. There is more than radiation at work
>>> very close to an antenna. Consider your own language above: Induction
>>> (or even capacitive coupling).
>>>
>>> 73's
>>> Richard Clark, KB7QHC
>>
>> I think Richard has hit the nail on the head. I wish calculation of
>> electromagnetic fields could be reduced to a simple equation. Any
>> undergraduate text on electromagnetics barely scratches the surface. I
>> suggest you check the site at www.nec2.org and download the .pdf version
>> of the "NEC Program Description -- Theory". Gives an overview of "Method
>> of Moments". As a foundation Kraus' Electromagnetics may help, and is
>> available used (and cheap) at www.bn.com. Also at the same site a
>> reprint of "Field Computation by Moment Methods" by Roger F. Harrington
>> can be obtained for $33.50. Then there is the "Finite Element" method as
>> used by "Ansoft's" HFSS".
>>
>>
>> Regards,
>>
>> Frank
>>
>
>
```

# 2273. Re: Putting a Ferrite Rod at the Far-End of a Random Wire Antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-14 20:30:09 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <678fp0ll6nutbncp8ddcf5ktcvhp8dm9vi@4ax.com>
Source record: 86670
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

On 14 Nov 2004 06:42:51 -0800, rhf-newsgroups@pacbell.net (RHF) wrote:
>So my 'focus' is on a "Low Noise' Inverted "L" Antenna that is
>100 Feet long. Placing the Ferrite Rod at the "Top" of the
>Vertical Leg where the Antenna Wire Element transitions from
>Vertical to Horizontal. Rig the Antenna Wire Element with 33
>Feet Up to the Ferrite Rod AM/MW Ferrite Coil and then have 67
>Feet Out to the Far-End. Would this possibly work any better
>then having the Ferrite Rod and Coil at the Far-End ? and Why ?

Hi OM,

If you want to resonate it at ONE frequency (the supposed reason for having that lump at the end) then you would need an inductive reactance of
1000 Ohms at the feedpoint to render the antenna a resistive 6 Ohms and a poor average gain of -8.7dB;
or
1000 Ohms at 3' up to render the antenna a resistive 7 Ohms and a poor average gain of -8.5dB;
or
1300 Ohms at 16' up - 7.8 Ohm Antenna @ -8.7dB;
or
1400 Ohms at the top - 9 Ohm Antenna @ -9dB;
or
1900 Ohms 16' out the horizontal leg - 11 Ohm Antenna @ -9.6dB;
or
2600 Ohms 32' out - 12.5 Ohm Antenna @ -10 dB;
or
5800 Ohms 48' out - 14.6 Ohm Antenna @ -10.5dB;
or
10200 Ohms 58' out - 15.4 Ohm Antenna @ -10.6dB;
or
56500 Ohms 64' out - 15.2 Ohm Antenna @ -10.6dB.

You should note the progression of increased inductance required to tune this antenna to 1MHz (ymmv). At any other frequency and bingo, all bets are off. You should also note there is only a 2dB spread (AVC would quickly put that to rest). Also, the numbers above presume you performed the chore of laying out 16 X 33' radials.

Let's compare that to the advertised antenna
9200 Ohms at the bottom - 32.5 Ohm Antenna @ -26.8dB;
or
13700 Ohms at 8' up - 35 Ohm Antenna @ -22dB;

or
108750 Ohms at 15' up - 39.6 Ohm Antenna @ -19.9dB.

This presumes the single lead-in laying along the ground (where most of this Antenna Ohmage resides.

This, further, would put your antenna roughly 10dB ahead (sans loading, and using a simple tuner) of the $95 spread. I hope you notice the parenthetic statement of a tuner - it does the same thing as these loads, and you get to tune to more than one frequency.

I will leave it up to you to determine how many wraps around how many rods would give you 110000 Ohms inductive reactance at 1MHz.
>
>In my 'imagination' for the AM/MW Broadcast Band; the Vertical
>Up-Leg would act like an Omni-Directional "Tuned" Vertical Antenna
>(since the Ferrite Rod would be Vertical); with the Horizontal
>Out-Arm of the Antenna acting like a Top Hat for the Vertical.
>Then at the Shortwave Frequencies the 'effects' of the Ferrite
>Rod would become less and the Antenna would simply act as a
>normal SWL'ers Inverted "L" Antenna.

Well, let's just test that hypothesis with the load at the top.

What you get is fairly well tuned at 10MHz (SWR 1.7) with omni coverage in both horizontal and vertical. For other bands, of course, a tuner would be useful.

>Now here is another thought; would having the Ferrite Rod with the
>Antenna Wire wrapped around it at the Far-End of the Horizontal
>Antenna Element cause the AM/MW Broadcast Band reception to be
>Directional 'Off-the-Sides' of the Inverted "L" Antenna ? ? ?

NO. For short antennas and low horizontals, there is almost no directionality. What you are attempting to do is to capture the quality of small loops (which are what the ferrites are) of being directional. The signal from the parasitic wire (what is not part of the small ferrite) is going to fill in the nulls and deluge its poorer sensitivity as well. You can of course test this answer by finding a way to answer my question inferred above about how many wraps and how many rods to achieve 110000 Ohms inductive reactance.

73's
Richard Clark, KB7QHC

# 2274. Re: Putting a Ferrite Rod at the Far-End of a Random Wire Antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-14 20:52:20 UTC
From: richardharrison@webtv.net
Message-ID: <11953-4197C584-1@storefull-3257.bay.webtv.net>
Source record: 86671

Terry wrote:
Is there any sense in putting a Ferrite Rod at the Far End of a Random Wire Antenna with the End of the Wire Antenna Element "wrapped around it" in a tuned coil to improve AM/MW Band reception?"

Frequency selectivity improves signal to noise ratio. Antenna tuning reduces the possibility of receiver input overload. A naturally resonant length for the medium-wave band will be more than 150 feet, so a coil is likely needed to resonate a random length of wire.

Placing a coil at the far end of an antenna increases the current below the coil which makes it more effective. Such an antenna was patented in 1909. A copy of the diagram which was filed on August 10, 1909 by Simon Eisenstein of Kiev, Russia appears in Fig 9-24 on page 9-17 of the 1994 edition of ON4UN`s "Low-Band-Band DXing". Circuit to the open-end of the loading coil is completed by a capacitive hat beyond the coil.

The ferrite rod increases the coil core permeability. This allows fewer turns for a given inductance. A higher Q results in a more efficient tuned circuit. Multiple methods may be used to resonate an antenna circuit. Eisenstein used a coil and a capacitive hat for top loading. It still may not be enough, and can be augmented with other reactances located elsewhere.

Best regards, Richard Harrison, KB5WZI

# 2275. Re: Putting a Ferrite Rod at the Far-End of a Random Wire Antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-14 21:21:27 UTC
From: John Doty <jpd@whispertel.LoseTheH.net>
Message-ID: <4197CC57.4070006@whispertel.LoseTheH.net>
Source record: 86572
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

> On 14 Nov 2004 06:42:51 -0800, rhf-newsgroups@pacbell.net (RHF) wrote:
>
>>So my 'focus' is on a "Low Noise' Inverted "L" Antenna that is
>>100 Feet long. Placing the Ferrite Rod at the "Top" of the
>>Vertical Leg where the Antenna Wire Element transitions from
>>Vertical to Horizontal. Rig the Antenna Wire Element with 33
>>Feet Up to the Ferrite Rod AM/MW Ferrite Coil and then have 67
>>Feet Out to the Far-End. Would this possibly work any better
>>then having the Ferrite Rod and Coil at the Far-End ? and Why ?

Generally, adding non-radiating reactance to an antenna decreases
broadband efficiency, although it may increase efficiency over narrow bands.

-jpd

# 2276. Re: Putting a Ferrite Rod at the Far-End of a Random Wire Antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-14 21:23:25 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10pfj6mcgmkj856@corp.supernews.com>
Source record: 86573
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

If the rod does anything at all, it increases the effective length of the antenna. You can accomplish the same thing by physically increasing the wire length. And all that will do is to increase the amount of signal -- and noise -- entering your receiver. Once you have enough signal and noise to overcome your receiver's internal noise, there's no advantage of any further increase, since there's no improvement in the signal to noise ratio. Try disconnecting your antenna from your radio. If the noise level drops when you do, you've got adequate signal strength from the antenna, and lengthening it -- either physically or with some kind of loading -- won't help you hear signals.

The explanation of the properties of the antenna at the distributor's web site is wholly hype and sales marketing. It's a mismash of misused technical terms, which means nothing and and is quite apparently intended to mislead a potential customer and present the antenna as having wonderful properties which it doesn't in fact have. I'd avoid buying it for that reason if for none other.

Roy Lewallen, W7EL

RHF wrote:

> FO&A,
>
> Here is my Question: Is there any sense in putting a Ferrite Rod
> at the Far-End of a Random Wire Antenna with the Wire from the
> End of the Wire Antenna Element 'wrapped' around it in a
> "Tuned Coil" to improve the AM/MW Band Reception ?
>
> * Any 'theory' behind why this Idea might Work ?
>
> * Does this Idea actually Work ?
>
> * Or is this Idea just so much Antenna 'hype' and Sales Marketing
>
> I am Asking these Questions is because of what I have read about
> the RF Systems "EMF" Electro-Magnetic-Field Passive Wire Antenna
> http://www.universal-radio.com/catalog/sw_ant/0743.html
>
> In "John Wagner's Shortwave Tips & Tricks" he writes:
> http://www.dxing.com/tips.htm
> "The EMF antenna has two 35mm film canister looking objects
> connected to it. The canister on the Far-End is actually an
> excellent "Tuned Ferrite Rod" designed for MW (Medium Wave)

> and really helps any receiver without a built in MW Antenna
> Rod. Canister two (in middle) is a Balun that helps SW
> reception very much."
>
>
> i want to know ~ RHF
> .
> .

# 2277. Re: Ringo Ranger II

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-14 21:32:46 UTC
From: "NN7Kex<NOSPAM>k7zfg" <"NN7Kex<NOSPAM>k7zfg"@sbcglobal.net>
Message-ID: <2aQld.8821$zx1.1581@newssvr13.news.prodigy.com>
Source record: 86574

Howard wrote:
> On Sat, 13 Nov 2004 23:25:12 -0800, "Harbin" <harbinjr@adelphia.net>
> wrote:
>
>
>>Howdy Y'all:
>>Chushcraft says that the Ringo Ranger II is the latest design featuring
>>three 5/8 wave radiating elements and an adjustable 1/8 wave phasing stub.
>>My question is why a 1/8 phasing stub? Should it be more like 3/8 or
>>somthing, and why only
>>one phasing stub, should there not be 2? And is the outside of the coax that
>>comes from the ground plane a radiating
>>element? This antenna has me scratching my head, any ideas?
>>
>>Harbin
>>
>
> Sounds like marketing in action; I'd call it a two element colinear
> with a decoupling section at the bottom. Just for giggles, what gain
> does Witchcraft claim?
> Howard

Crunchcraft shows 7 dBi gain-- and b.t.w., the 1/8 wave- DOUBLE it (it is a HAIRPIN)
, wave has to travel 2 X the length (plus the extra 1-1/2 inch width)! Actually 1/4
wave LONG phaseing (for want of a better word) Section. This between 2 aprox.5/8
wavelength verticles Howard is correct!. Jim NN7K

--
To reply, remove the <NOSPAM>

# 2278. Re: Putting a Ferrite Rod at the Far-End of a Random Wire Antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-14 21:38:39 UTC
From: richardharrison@webtv.net
Message-ID: <5852-4197D05F-109@storefull-3252.bay.webtv.net>
Source record: 86575

Richard Clark wrote:
"For short antennas and low horizontals, there is almost no
directionality."

True, assuming the the low horizontal ian`t a Beverage or similar wave
antenna.

Ferrite loopsticks have broadside to the axis of te rod sensitivity as
compared to air-core loops which are sensitive in the plane of the loop.

Daytime MW propagation is via the groundwave which is confined to
vertical polarization beyond the line of sight distance.

An L-antenna is using its horizontal portion as a capacitive hat for its
vertical portion which is the real antenna during the daytime hours.

Best regards, Richard Harrison, KB5WZI

# 2279. Re: DOUBLE RESONANCE IN DIPOLE...THE CAUSE?????

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-14 22:20:24 UTC
From: radio913@aol.com
Message-ID: <1d15af91.0411141420.5d59772f@posting.google.com>
Source record: 86576

'Doc <w5lz@cwis.net> wrote in message
news:<1Dpld.28500$Qv5.7839@newssvr33.news.prodigy.com>...
> Dr. Slick wrote:
> "(1)A properly tuned and positioned dipole will
> be resonant at only one frequency.
> (2)Double-dips are a bad sign, and the return loss suffers."
>
> (1) - Nope, just not true.
> (2) - Not true either. (see #1)
>

What i meant to say was, a properly tuned
simple dipole will be resonant at only one
frequency and it's harmonics.

My double dips were not harmonically related.

> With the two 'dips' not being harmonically related, it
> appears that there is some 'other' reason, the feed line
> for one, or something near the antenna (a person for instance?).
> 'Doc

raising the height of the dipole above the ground
from 3.5 to 6.5 feet was one of the things i did to
fix this problem.

The other one no one has guessed yet...

S.

## 2280. Re: CATV splitter question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-14 23:44:06 UTC
From: Kevin <nospam@BELLSOUTH.NET>
Message-ID: <L0Sld.24833$z3.5440@bignews5.bellsouth.net>
Source record: 86577
Cross-posted to: rec.radio.amateur.antenna,rec.video.cable-tv,comp.home.automation

> list is the return loss. Are the 90dB ones solder backed or epoxy? Are
> they made utilizing a PCB design, or are the components just soldered
> together and stuck in the housing?

What would be the difference in having a solder back or an epoxy?

# 2281. Re: CATV splitter question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-15 00:44:18 UTC
From: dplatt@radagast.org
Message-ID: <10pfuv2k3o6aga1@corp.supernews.com>
Source record: 86578
Cross-posted to: rec.radio.amateur.antenna,rec.video.cable-tv,comp.home.automation

>> list is the return loss. Are the 90dB ones solder backed or epoxy? Are
>> they made utilizing a PCB design, or are the components just soldered
>> together and stuck in the housing?
>
>What would be the difference in having a solder back or an epoxy?

A splitter which has a solid (or completely seam-soldered) metal enclosure is going to be more RF-tight than one which simply has a poured-epoxy or plastic back. The sealed-metal variety will keep the cable-TV signal from leaking out, and will keep other signals from leaking into the cable feed.

This is beneficial for several reasons, all having to do with the fact that many cable-TV channels use frequencies which are not authorized for TV-broadcast use - they're assigned to other radio services (police, fire, aircraft, amateur).

Signals leaking out of a cable-TV wiring plant (e.g. from a poorly built splitter, or an unterminated port on a splitter or junction box) can interfere with these other radio services. Similarly, a nearby transmitter operating on these frequencies can leak into an open port, mix with the cable-TV signals, and cause video or audio distortion or interference.

Cable-TV companies are required by the FCC to keep their wiring plants "tight", and they usually run "sweeps" of residential neighborhoods looking for signal leakage. If they find it, they'll either fix the wiring fault (if it's outside the building), or require that the building owner or tenant fix the problem as a condition of continuing to receive cable TV service.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

# 2282. Re: Putting a Ferrite Rod at the Far-End of a Random Wire Antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-15 00:54:48 UTC
From: rhf-newsgroups@pacbell.net
Message-ID: <ff3145e8.0411141654.3979ca00@posting.google.com>
Source record: 86579
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

= = = Cecil Moore <w5dxp@hotmail.com> wrote in message
= = = news:<41976d20$1_1@127.0.0.1>...
> RHF wrote:
> > JK, RC and CM,
> > I suspect that may be one reason that this Far-End Loaded AM/MW
> > Coil may work is the fact that the RF Systems EMF Antenna is
> > 'only' Sixteen Feet (16') Long; and the Two Inch to Three Inch
> > (2"-3") Ferrite Rod at the End of the Wire Antenna Element does
> > have some 'measurable effect' on improving the AM/MW Frequency
> > Band performance of such a short Antenna.
>
> Yes, I was assuming you had a short antenna and wanted to load
> it. The reason for loading a short antenna is to increase its
> electrical length closer to resonance and the benefits are much
> more pronounced for transmitted signals. Most modern HF receivers
> have enough gain to make up for a less than optimum antenna.
>
> Loading a long wire antenna doesn't make much sense.

CM,

A 100 Foot long Inverted "L" Antenna is not a Long Wire for the
AM/MW Broadcast Band with coverage for 530 kHz to 1700 kHz

* One Wave Length for 530 kHz is 1896 Feet; and 100 Feet at
530 kHz would only be 0.053 WL.

* One Wave Length for 1700 kHz is 591 Feet; and 100 Feet at
1700 kHz would be 0.169 WL.

Like most people I do not have 600 to 1900 feet of space to
string up a true "Long Wire" {One Wave Length} Antenna for
the AM/MW Broadcast Band. So this is why I am 'questioning'
the use of Ferrite Rod Antenna with a Coil as an integral part
of a 100 Foot long Inverted "L" Antenna.

still searching for answers ~ RHF
.
.

# 2283. Re: Putting a Ferrite Rod at the Far-End of a Random Wire Antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-15 02:44:05 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10pg5vuc8hd27b5@corp.supernews.com>
Source record: 86580
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

You don't need a long wire for listening. One a fairly small fraction of a wavelength is probably adequate. If the noise level drops when you disconnect the antenna, it's long enough, and making it longer or adding gadgets to it won't help a bit.

A number of the people posting on this thread are thinking of the requirements for an efficient antenna. Efficiency is important when transmitting, but of almost no importance for receiving. The antenna just has to be efficient enough to deliver more atmospheric noise than you have internal receiver noise. Any more makes no improvement.

Roy Lewallen, W7EL

RHF wrote:
>
> A 100 Foot long Inverted "L" Antenna is not a Long Wire for the
> AM/MW Broadcast Band with coverage for 530 kHz to 1700 kHz
>
> * One Wave Length for 530 kHz is 1896 Feet; and 100 Feet at
> 530 kHz would only be 0.053 WL.
>
> * One Wave Length for 1700 kHz is 591 Feet; and 100 Feet at
> 1700 kHz would be 0.169 WL.
>
> Like most people I do not have 600 to 1900 feet of space to
> string up a true "Long Wire" {One Wave Length} Antenna for
> the AM/MW Broadcast Band. So this is why I am 'questioning'
> the use of Ferrite Rod Antenna with a Coil as an integral part
> of a 100 Foot long Inverted "L" Antenna.
>
> still searching for answers ~ RHF
> .
> .

# 2284. Re: DOUBLE RESONANCE IN DIPOLE...THE CAUSE?????

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-15 04:26:26 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <JLmdnXy8r59XsgXcRVn-qw@comcast.com>
Source record: 86581

"Dr. Slick" <radio913@aol.com> wrote in message
news:1d15af91.0411141420.5d59772f@posting.google.com...
> 'Doc <w5lz@cwis.net> wrote in message
> news:<1Dpld.28500$Qv5.7839@newssvr33.news.prodigy.com>...
>> Dr. Slick wrote:
>> "(1)A properly tuned and positioned dipole will
>> be resonant at only one frequency.
>> (2)Double-dips are a bad sign, and the return loss suffers."
>>
>> (1) - Nope, just not true.
>> (2) - Not true either. (see #1)
>>
>
> What i meant to say was, a properly tuned
> simple dipole will be resonant at only one
> frequency and it's harmonics.
>
> My double dips were not harmonically related.
>
>
>> With the two 'dips' not being harmonically related, it
>> appears that there is some 'other' reason, the feed line
>> for one, or something near the antenna (a person for instance?).
>> 'Doc
>
>
> raising the height of the dipole above the ground
> from 3.5 to 6.5 feet was one of the things i did to
> fix this problem.
>
> The other one no one has guessed yet...
>
>
> S.
This sounds like 20 questions. You are not telling us what you have. One would not expect somebody to measure an antenna at a height of 3 feet. A dipole would have an impedance of around 75 Ohms, which would give an SWR into 50 Ohms of around 1.5:1 Are you using 50 Ohm coax and a 50 Ohm meter? Is there a gamma match, or such, to adjust? Is it a dipole or a folded dipole? Is there a balun? Did you buy the antenna or build it (I suspect the intent would be different)? Since you are using an SWR meter, are you putting enough power into it to get out of the nonlinear range?

Tam/WB2TT

## 2285. Propagation forecasts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-15 05:02:44 UTC
From: Dave Pitzer <dpitzer@sonic.net>
Message-ID: <ULWId.5392$_3.69357@typhoon.sonic.net>
Source record: 86582

Is there any place on the Net where I can find daily propagation reports? I am especially interested in night time propagation forecasts for commercial, AM broadcast band signals.

Thanks,

Dave Pitzer
AM DX-er

# 2286. Re: Propagation forecasts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-15 05:30:34 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <6regp0lb4k61mqmporet4rutfh0ddcvgfr@4ax.com>
Source record: 86583

On Mon, 15 Nov 2004 05:02:44 GMT, "Dave Pitzer" <dpitzer@sonic.net>
wrote:
>Is there any place on the Net where I can find daily propagation reports? I
>am especially interested in night time propagation forecasts for commercial,
>AM broadcast band signals.

Hi Dave,

Possibly, but they are unknown to me, unfortunately (perhaps someone
will clue us both in).

On the other hand (and it won't do MW much) you could reference VOAWin
for HF propagation work (try a search engine). MW propagation
variation seems to have two major variables, Daytime/Nighttime and
Summer/Winter. Beyond that, it is fairly predictable for any of those
four combinations.

I would suggest following the chatter on rec.radio.shortwave. You can
find reports to help hone your prospects, but when I did an impromptu
analysis of some 1500 postings, I found they actually talk about
contacts only about 0.5% of the time.

73's
Richard Clark, KB7QHC

# 2287. Re: Propagation forecasts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-15 06:22:45 UTC
From: Dave Pitzer <dpitzer@sonic.net>
Message-ID: <VWXId.5394$_3.69463@typhoon.sonic.net>
Source record: 86584

> On Mon, 15 Nov 2004 05:02:44 GMT, "Dave Pitzer" <dpitzer@sonic.net>
> wrote:
> >Is there any place on the Net where I can find daily propagation reports?
I
> >am especially interested in night time propagation forecasts for
commercial,
> >AM broadcast band signals.
>
> Hi Dave,
>
> Possibly, but they are unknown to me, unfortunately (perhaps someone
> will clue us both in).
>
> On the other hand (and it won't do MW much) you could reference VOAWin
> for HF propagation work (try a search engine). MW propagation
> variation seems to have two major variables, Daytime/Nighttime and
> Summer/Winter. Beyond that, it is fairly predictable for any of those
> four combinations.
>
> I would suggest following the chatter on rec.radio.shortwave. You can
> find reports to help hone your prospects, but when I did an impromptu
> analysis of some 1500 postings, I found they actually talk about
> contacts only about 0.5% of the time.
>
> 73's
> Richard Clark, KB7QHC

Richard,

That's for your reply.

Being an avid MW/ BCB DX-er I have found sporatic "short-term" variations within the longer Day/Night -- Summer/Winter cycles. For example, I live in NE Pennsylvania and can regularly listen to WJR in Detroit at night (slightly better in winter). However, for a three-four night period last week, the night signal varied from unreadable to extremely noisy to "gone". I use WJR only as an example. Othe 50,000 watt clear-channel stations around the east coast suffered the same night-time signal degradation during the same three-four night period. Short-term sun-spot activity??? Only thing I can think of. And if so, this activity should be predictable (and reportable) on a very short-term (24-48 hour) basis. Just a thought on my part.

Thanks again,

DP
======

# 2288. Re: Propagation forecasts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-15 06:36:58 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <e8jgp0577jlkapereqbf01scv8p157f3p8@4ax.com>
Source record: 86585

On Mon, 15 Nov 2004 06:22:45 GMT, "Dave Pitzer" <dpitzer@sonic.net>
wrote:
>Being an avid MW/ BCB DX-er I have found sporatic "short-term" variations
>within the longer Day/Night -- Summer/Winter cycles. For example, I live in
>NE Pennsylvania and can regularly listen to WJR in Detroit at night
>(slightly better in winter). However, for a three-four night period last
>week, the night signal varied from unreadable to extremely noisy to "gone".
>I use WJR only as an example. Othe 50,000 watt clear-channel stations around
>the east coast suffered the same night-time signal degradation during the
>same three-four night period. Short-term sun-spot activity??? Only thing I
>can think of. And if so, this activity should be predictable (and
>reportable) on a very short-term (24-48 hour) basis. Just a thought on my
>part.

Hi Dave,

There've been reports of Auroral activity which is an indicator of
solar emissions that disrupt communication. You might want to include
the solar flux reports at:
http://www.sel.noaa.gov/forecast.html

73's
Richard Clark, KB7QHC

# 2289. Re: Putting a Ferrite Rod at the Far-End of a Random Wire Antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-15 06:49:02 UTC
From: Telamon <telamon_spamshield@pacbell.net.is.invalid>
Message-ID: <telamon_spamshield-4BCF2F.22490214112004@newssvr21-ext.news.prodigy.com>
Source record: 86586
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

In article <4197CC57.4070006@whispertel.LoseTheH.net>,
John Doty <jpd@whispertel.LoseTheH.net> wrote:

> > On 14 Nov 2004 06:42:51 -0800, rhf-newsgroups@pacbell.net (RHF) wrote:
> >
> >>So my 'focus' is on a "Low Noise' Inverted "L" Antenna that is
> >>100 Feet long. Placing the Ferrite Rod at the "Top" of the
> >>Vertical Leg where the Antenna Wire Element transitions from
> >>Vertical to Horizontal. Rig the Antenna Wire Element with 33
> >>Feet Up to the Ferrite Rod AM/MW Ferrite Coil and then have 67
> >>Feet Out to the Far-End. Would this possibly work any better
> >>then having the Ferrite Rod and Coil at the Far-End ? and Why ?
>
> Generally, adding non-radiating reactance to an antenna decreases
> broadband efficiency, although it may increase efficiency over narrow bands.

Good point.

--
Telamon
Ventura, California

# 2290. Re: Putting a Ferrite Rod at the Far-End of a Random Wire Antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-15 07:04:50 UTC
From: Conan Ford <conanford@com.hotmail>
Message-ID: <Xns95A2CDE20B3conanfordhotmailcom1@24.71.223.159>
Source record: 86587
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

rhf-newsgroups@pacbell.net (RHF) wrote in
news:ff3145e8.0411130924.6a68d0be@posting.google.com:

> FO&A,
>
> Here is my Question: Is there any sense in putting a Ferrite Rod
> at the Far-End of a Random Wire Antenna with the Wire from the
> End of the Wire Antenna Element 'wrapped' around it in a
> "Tuned Coil" to improve the AM/MW Band Reception ?
>
> * Any 'theory' behind why this Idea might Work ?
>
> * Does this Idea actually Work ?
>
> * Or is this Idea just so much Antenna 'hype' and Sales Marketing
>
> I am Asking these Questions is because of what I have read about
> the RF Systems "EMF" Electro-Magnetic-Field Passive Wire Antenna
> http://www.universal-radio.com/catalog/sw_ant/0743.html
>
> In "John Wagner's Shortwave Tips & Tricks" he writes:
> http://www.dxing.com/tips.htm
> "The EMF antenna has two 35mm film canister looking objects
> connected to it. The canister on the Far-End is actually an
> excellent "Tuned Ferrite Rod" designed for MW (Medium Wave)
> and really helps any receiver without a built in MW Antenna
> Rod. Canister two (in middle) is a Balun that helps SW
> reception very much."
>
>
> i want to know ~ RHF
> .
> .

I have a 20 foot straight wire in my garage, that works better for MW DXing than the ferrite rods in any radio I have, due to the fact that it is much further from any noise sources in the house. I imagine the 16 foot wire being sold there would pick up some MW, but I doubt that adding the ferrite bar at the end helps one bit.

# 2291. FCC Amateur repeater database - if any

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-15 10:34:05 UTC
From: Bob Bob <bcnntp@optusnet.com.au>
Message-ID: <u9dm62-4ol.ln1@p400bob.lse.com.au>
Source record: 86588

Gidday

I want to do some RF coverage plots (theoretical) of the VHF/UHF repeaters in East Texas. I am looking for repeater callsigns, frequencies and Lat/Lon of the sites within a 100 feet or so. (Pref in WGS84)

I dont seem to be able to find it in the FCC database. It seems to omit amateur stations altogether.

Can anyone point me in the right direction?

TIA Bob VK2YQA.

# 2292. Re: FCC Amateur repeater database - if any

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-15 11:32:06 UTC
From: Dave <noone@nowhere.com>
Message-ID: <3uOdnWmzQdBUDgXcRVn-og@crocker.com>
Source record: 86589

amateur stations are in there. but you won't find a list of repeaters.
there may be some really old repeater calls, but they won't have lat/lon
info. to find that information you would have to contact the repeater
coordinating organization for that area who may or may not have the details
you want and may or may not let you have it... they are volunteer
organizations.

"Bob Bob" <bcnntp@optusnet.com.au> wrote in message
news:u9dm62-4ol.ln1@p400bob.lse.com.au...
> Gidday
>
> I want to do some RF coverage plots (theoretical) of the VHF/UHF
> repeaters in East Texas. I am looking for repeater callsigns,
> frequencies and Lat/Lon of the sites within a 100 feet or so. (Pref in
> WGS84)
>
> I dont seem to be able to find it in the FCC database. It seems to omit
> amateur stations altogether.
>
> Can anyone point me in the right direction?
>
> TIA Bob VK2YQA.

# 2293. Re: MP-1 or 2 as mobile antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-15 11:45:46 UTC
From: "Karl Geng, N1DL" <n1dl@arrl.net>
Message-ID: <pe2dnXVpdfZKCgXcRVn-sw@comcast.com>
Source record: 86590

MP-1 manual version is what I use.
BTW a fellow islander KK9TT has had similar success with his. I worked him with his MP-1
sticking out of the hotel window in Honolulu with an S7 signal in FL on 20m.
We both never leave without our MP-1 and the IC706 on trips. Great small package. Mine fits together with 115/230 power supply and key/cables/plugs into a PC case. Never had problems in customs or security checks.
Good luck and DX
Karl

"Steve Ferguson" <stevferg@adelphia.net> wrote in message
news:haSdnSxvJqoz6QrcRVn-oQ@adelphia.com...
> Karl: Was that an MP-1 or an MP-2 you were using...Thanks..Steve/N4PKJ
>
> "Karl Geng, N1DL" <n1dl@arrl.net> wrote in message
> news:eYGdnbSKNcSgAgvcRVn-iw@comcast.com...
>> Steve,
>> I use one on my SUV - also used it on a long trip thru South America with
>> great success.
>> Recommend you tie a fishing line to it when driving fast on highways.
>> For stationary use I use the new MFJ 12 foot telescopic top in lieu of
>> the
>> supplied one - it really improves the signal on 20, 30 and 40m. The coil
>> oxidizes after a few
>> months - at least in my climate. Toothpaste will clean it up quickly.
>> Good
>> antenna.
>>
>> Karl N1DL VP8DHP
>>
>>
>> "Steve Ferguson" <stevferg@adelphia.net> wrote in message
>> news:jJidnSm1qbwDvwvcRVn-rA@adelphia.com...
>> > Does anyone use the MP-1 or MP-2 as a mobile antenna? Does it do well?
>> > How
>> > does it weather? thanks for any info...Steve/N$PKJ
>> >
>> >
>>
>>
>
>

# 2294. Re: Propagation forecasts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-15 13:23:20 UTC
From: Frank <ve6cb@NOSPAM.telus.net>
Message-ID: <c52md.87765$E93.66037@clgrps12>
Source record: 86591

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:e8jgp0577jlkapereqbf01scv8p157f3p8@4ax.com...
> On Mon, 15 Nov 2004 06:22:45 GMT, "Dave Pitzer" <dpitzer@sonic.net>
> wrote:...
>>....reportable) on a very short-term (24-48 hour) basis. Just a thought on
>>my
>>part.
>
> Hi Dave,
>
> There've been reports of Auroral activity which is an indicator of
> solar emissions that disrupt communication. You might want to include
> the solar flux reports at:
> http://www.sel.noaa.gov/forecast.html
>
> 73's
> Richard Clark, KB7QHC

Some links that may be of interest:

http://elbert.its.bldrdoc.gov/hf.html
http://www.mindspring.com/~helmsman/
http://www.sec.noaa.gov/
http://www.dxlc.com/solar/

Regards,

Frank

# 2295. Re: Putting a Ferrite Rod at the Far-End of a Random Wire Antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-15 13:46:47 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <2vrqabF2os2arU1@uni-berlin.de>
Source record: 86592
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

"Roy Lewallen" <w7el@eznec.com> wrote
>Once you have enough signal and noise to overcome
>your receiver's internal noise, there's no advantage of any
>further increase, since there's no improvement in the
>signal to noise ratio.

---

Pardon the thread drift, but making the receive antenna directional can improve system SNR by reducing the total noise voltage delivered to the receiver input, as a ratio of the desired signal.

RF

# 2296. Re: FCC Amateur repeater database - if any

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-15 14:34:34 UTC
From: Bob Miller <rmiller47@satx.rr.com>
Message-ID: <pifhp0phhcsknnvtm3g1oddvk3qngiupqh@4ax.com>
Source record: 86594

On Mon, 15 Nov 2004 21:34:05 +1100, Bob Bob <bcnntp@optusnet.com.au>
wrote:

>Gidday
>
>I want to do some RF coverage plots (theoretical) of the VHF/UHF
>repeaters in East Texas. I am looking for repeater callsigns,
>frequencies and Lat/Lon of the sites within a 100 feet or so. (Pref in
>WGS84)
>
>I dont seem to be able to find it in the FCC database. It seems to omit
>amateur stations altogether.
>
>Can anyone point me in the right direction?
>
>TIA Bob VK2YQA.

Try this database:

http://rptr.amateur-radio.net/arn/rptr/

bob
k5qwg

# 2297. Re: Ringo Ranger II

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-15 14:35:48 UTC
From: Dale Parfitt <par@parelectronics.com>
Message-ID: <893md.3345$J55.2743@trnddc06>
Source record: 86593

> Sounds like marketing in action; I'd call it a two element colinear
> with a decoupling section at the bottom. Just for giggles, what gain
> does Witchcraft claim?
> Howard

You maximize the gain of a colinear by separating the current loops as far as possible ( see the graph in the ARRL Antenna Handbook of gain vs current loop spacing). By making the top element a 5/8, then a 1/4 wave phasing stub ( 1/8 long), the bottom element is realized as an inverted 5/8. This places the current loops 3/4 wavelength apart. (Compare this to 5/8 separation if the bottom element were fred as a traditional 5/8- and require a longer stub) .The bottom of this element is then voltage fed- diminishing the need for radials.

Dale W4OP

## 2298. Re: Propagation forecasts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-15 15:11:40 UTC
From: Crazy George <muNnscOh@attSglPobaAl.nMet>
Message-ID: <4198c9b4_2@news1.prserv.net>
Source record: 86595

Dave:

Unfortunately, there is no commercial value in MW nighttime propagation forecasting, so none is published. You will
have to educate yourself in propagation theory, and then watch the elements which affect it. In the case of last week,
I believe it was a coronal ejection (from the sun) which arrived mid-week. And, I think the National Radio Club, which
is a MW DX club, is still active (until BPL and IBOC shuts them down). Find them (they are on the 'net) and see what
they have to offer. I suspect they have a bulletin board or reflector for real-time updates on propagation, stations
heard, etc.

--
Crazy George
Remove N O and S P A M imbedded in return address
"Dave Pitzer" <dpitzer@sonic.net> wrote in message
news:VWXld.5394$_3.69463@typhoon.sonic.net...
>
>
> > On Mon, 15 Nov 2004 05:02:44 GMT, "Dave Pitzer" <dpitzer@sonic.net>
> > wrote:
> > >Is there any place on the Net where I can find daily propagation reports?
> I
> > >am especially interested in night time propagation forecasts for
> commercial,
> > >AM broadcast band signals.
> >
> > Hi Dave,
> >
> > Possibly, but they are unknown to me, unfortunately (perhaps someone
> > will clue us both in).
> >
> > On the other hand (and it won't do MW much) you could reference VOAWin
> > for HF propagation work (try a search engine). MW propagation
> > variation seems to have two major variables, Daytime/Nighttime and
> > Summer/Winter. Beyond that, it is fairly predictable for any of those
> > four combinations.
> >
> > I would suggest following the chatter on rec.radio.shortwave. You can
> > find reports to help hone your prospects, but when I did an impromptu
> > analysis of some 1500 postings, I found they actually talk about
> > contacts only about 0.5% of the time.
> >

> > 73's
> > Richard Clark, KB7QHC
>
>
> Richard,
>
> That's for your reply.
>
> Being an avid MW/ BCB DX-er I have found sporatic "short-term" variations
> within the longer Day/Night -- Summer/Winter cycles. For example, I live in
> NE Pennsylvania and can regularly listen to WJR in Detroit at night
> (slightly better in winter). However, for a three-four night period last
> week, the night signal varied from unreadable to extremely noisy to "gone".
> I use WJR only as an example. Othe 50,000 watt clear-channel stations around
> the east coast suffered the same night-time signal degradation during the
> same three-four night period. Short-term sun-spot activity??? Only thing I
> can think of. And if so, this activity should be predictable (and
> reportable) on a very short-term (24-48 hour) basis. Just a thought on my
> part.
>
> Thanks again,
>
> DP
> ======
>
>

# 2299. Re: FCC Amateur repeater database - if any

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-15 15:18:24 UTC
From: TBA <TBA@GOODOLEUSOFA.COM>
Message-ID: <QO3md.10938$Ae.6804@newsread1.dllstx09.us.to.verio.net>
Source record: 86596

"Bob Miller" <rmiller47@satx.rr.com> wrote in message
news:pifhp0phhcsknnvtm3g1oddvk3qngiupqh@4ax.com...
> On Mon, 15 Nov 2004 21:34:05 +1100, Bob Bob <bcnntp@optusnet.com.au>
> wrote:
>
>>Gidday
>>
>>I want to do some RF coverage plots (theoretical) of the VHF/UHF
>>repeaters in East Texas. I am looking for repeater callsigns,
>>frequencies and Lat/Lon of the sites within a 100 feet or so. (Pref in
>>WGS84)
>>
>>I dont seem to be able to find it in the FCC database. It seems to omit
>>amateur stations altogether.
>>
>>Can anyone point me in the right direction?
>>
>>TIA Bob VK2YQA.
>
> Try this database:
>
> http://rptr.amateur-radio.net/arn/rptr/
>
> bob
> k5qwg
>

If this link doesn't help (I've not checked it out) - perhaps get a hold of
a repeater control Op and ask them who the Repeater Frequency Coordinator is
for that region. Once you find that out, then write them and while getting
info from them, ask about the others in the State. Then from there, you can
contact others. They usually share information to help in solving
Interference problems (hopefully) before they start.

Now that I think about it, the ARRL Repeater guides have Repeater
Freq.Coordinators listed - at least they used to.
Also, that guide would be able to fill in all but any unknown repeaters. Not
so much with coordinates, but at least a location.

TBA

# 2300. Re: Putting a Ferrite Rod at the Far-End of a Random Wire Antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-15 15:37:16 UTC
From: rhf-newsgroups@pacbell.net
Message-ID: <ff3145e8.0411150737.9234c94@posting.google.com>
Source record: 86597
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

RC,

Thank You for Crunching the Numbers for Me.

~ RHF
.
.
= = = Richard Clark <kb7qhc@comcast.net> wrote in message
= = = news:<678fp0ll6nutbncp8ddcf5ktcvhp8dm9vi@4ax.com>...
> On 14 Nov 2004 06:42:51 -0800, rhf-newsgroups@pacbell.net (RHF) wrote:
> >So my 'focus' is on a "Low Noise' Inverted "L" Antenna that is
> >100 Feet long. Placing the Ferrite Rod at the "Top" of the
> >Vertical Leg where the Antenna Wire Element transitions from
> >Vertical to Horizontal. Rig the Antenna Wire Element with 33
> >Feet Up to the Ferrite Rod AM/MW Ferrite Coil and then have 67
> >Feet Out to the Far-End. Would this possibly work any better
> >then having the Ferrite Rod and Coil at the Far-End ? and Why ?
>
> Hi OM,
>
> If you want to resonate it at ONE frequency (the supposed reason for
> having that lump at the end) then you would need an inductive
> reactance of
> 1000 Ohms at the feedpoint to render the antenna a resistive 6 Ohms
> and a poor average gain of -8.7dB;
> or
> 1000 Ohms at 3' up to render the antenna a resistive 7 Ohms and a poor
> average gain of -8.5dB;
> or
> 1300 Ohms at 16' up - 7.8 Ohm Antenna @ -8.7dB;
> or
> 1400 Ohms at the top - 9 Ohm Antenna @ -9dB;
> or
> 1900 Ohms 16' out the horizontal leg - 11 Ohm Antenna @ -9.6dB;
> or
> 2600 Ohms 32' out - 12.5 Ohm Antenna @ -10 dB;
> or
> 5800 Ohms 48' out - 14.6 Ohm Antenna @ -10.5dB;
> or
> 10200 Ohms 58' out - 15.4 Ohm Antenna @ -10.6dB;
> or
> 56500 Ohms 64' out - 15.2 Ohm Antenna @ -10.6dB.
>
> You should note the progression of increased inductance required to

> tune this antenna to 1MHz (ymmv). At any other frequency and bingo,
> all bets are off. You should also note there is only a 2dB spread
> (AVC would quickly put that to rest). Also, the numbers above presume
> you performed the chore of laying out 16 X 33' radials.
>
> Let's compare that to the advertised antenna
> 9200 Ohms at the bottom - 32.5 Ohm Antenna @ -26.8dB;
> or
> 13700 Ohms at 8' up - 35 Ohm Antenna @ -22dB;
> or
> 108750 Ohms at 15' up - 39.6 Ohm Antenna @ -19.9dB.
>
> This presumes the single lead-in laying along the ground (where most
> of this Antenna Ohmage resides.
>
> This, further, would put your antenna roughly 10dB ahead (sans
> loading, and using a simple tuner) of the $95 spread. I hope you
> notice the parenthetic statement of a tuner - it does the same thing
> as these loads, and you get to tune to more than one frequency.
>
> I will leave it up to you to determine how many wraps around how many
> rods would give you 110000 Ohms inductive reactance at 1MHz.
> >
> >In my 'imagination' for the AM/MW Broadcast Band; the Vertical
> >Up-Leg would act like an Omni-Directional "Tuned" Vertical Antenna
> >(since the Ferrite Rod would be Vertical); with the Horizontal
> >Out-Arm of the Antenna acting like a Top Hat for the Vertical.
> >Then at the Shortwave Frequencies the 'effects' of the Ferrite
> >Rod would become less and the Antenna would simply act as a
> >normal SWL'ers Inverted "L" Antenna.
>
> Well, let's just test that hypothesis with the load at the top.
>
> What you get is fairly well tuned at 10MHz (SWR 1.7) with omni
> coverage in both horizontal and vertical. For other bands, of course,
> a tuner would be useful.
>
> >Now here is another thought; would having the Ferrite Rod with the
> >Antenna Wire wrapped around it at the Far-End of the Horizontal
> >Antenna Element cause the AM/MW Broadcast Band reception to be
> >Directional 'Off-the-Sides' of the Inverted "L" Antenna ? ? ?
>
> NO. For short antennas and low horizontals, there is almost no
> directionality. What you are attempting to do is to capture the
> quality of small loops (which are what the ferrites are) of being
> directional. The signal from the parasitic wire (what is not part of
> the small ferrite) is going to fill in the nulls and deluge its poorer
> sensitivity as well. You can of course test this answer by finding a
> way to answer my question inferred above about how many wraps and how
> many rods to achieve 110000 Ohms inductive reactance.

>
> 73's
> Richard Clark, KB7QHC

# 2301. Re: DOUBLE RESONANCE IN DIPOLE...THE CAUSE?????

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-15 15:44:36 UTC
From: richardharrison@webtv.net
Message-ID: <17939-4198CEE4-85@storefull-3258.bay.webtv.net>
Source record: 86598

Tam, WB2TT wrote:
"One would not expect somebody to measure an antenna at a height of 3 feet."

For reception of nearby broadcast stations a wire at 3 feet above the earth is probably fine but the wire would have a low radiation resistance.

The radiation resistance of a 1/2-wave dipole versus its height above ground in wavelengths is probably a familiar graph for many. It starts at zero ohms at zero height and rises in an almost straight inclined line to about 99 ohms at nearly 5/8-wavelength. Then, with increased height, the radiation resistance oscillates as a damped wave around 73 ohms.

Best regards, Richard Harrison, KB5WZI

## 2302. Is my antenna working?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-15 16:05:36 UTC
From: js_snow@hotmail.com
Message-ID: <a77d4110.0411150805.1e0f07c2@posting.google.com>
Source record: 86599

Forgive me for being a completely ignorant novice, but I built a simple ground plane antenna which seemed to cure my directional broadcast problems (broadcasting over my yard), but I unplugged it for a while, and now when I try to broadcast the signal is very weak, and doesn't change even though I unplugged the antenna. In other words, I was listening to the broadcast right at the Ramsey FM10a transmitter, and when I unplugged the antenna cable, the signal didn't change. Am I right in thinking that the coax connection to the antenna is broken somewhere and that the transmission is coming completely from the antenna jack of the transmitter?

Thanks for your help.

Clueless in Seattle

# 2303. Re: Putting a Ferrite Rod at the Far-End of a Random Wire Antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-15 16:13:57 UTC
From: rhf-newsgroups@pacbell.net
Message-ID: <ff3145e8.0411150813.2ca0c28@posting.google.com>
Source record: 86600
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

Thank You One and All for your Replies.

Well I have the two Inverted "L" Antennas and the proof would
be in the Doing by de-rigging one and wrapping the Antenna Wire
around a Ferrite Core; so that the Coil will be at the Top of
Vertical Up-Leg. Then doing some Side-by-Side Testing of the
two Antennas.

NOTE: Taking a second look at the RF Systems "EMF" Antenna.
The more I get the impression that it is susposed to be Rigged
as a Vertical using the Coax Cable as a Counterpoise or may be
as an Inverted "L" with the Coax Cable as the Vertical Up-Leg
and the Antenna as the Horizontal Out-Arm.

once again thank you very much one and all ~ RHF
.
.
= = = Conan Ford <conanford@com.hotmail> wrote in message
= = = news:<Xns95A2CDE20B3conanfordhotmailcom1@24.71.223.159>...
> rhf-newsgroups@pacbell.net (RHF) wrote in
> news:ff3145e8.0411130924.6a68d0be@posting.google.com:
>
> > FO&A,
> >
> > Here is my Question: Is there any sense in putting a Ferrite Rod
> > at the Far-End of a Random Wire Antenna with the Wire from the
> > End of the Wire Antenna Element 'wrapped' around it in a
> > "Tuned Coil" to improve the AM/MW Band Reception ?
> >
> > * Any 'theory' behind why this Idea might Work ?
> >
> > * Does this Idea actually Work ?
> >
> > * Or is this Idea just so much Antenna 'hype' and Sales Marketing
> >
> > I am Asking these Questions is because of what I have read about
> > the RF Systems "EMF" Electro-Magnetic-Field Passive Wire Antenna
> > http://www.universal-radio.com/catalog/sw_ant/0743.html
> >
> > In "John Wagner's Shortwave Tips & Tricks" he writes:
> > http://www.dxing.com/tips.htm
> > "The EMF antenna has two 35mm film canister looking objects
> > connected to it. The canister on the Far-End is actually an
> > excellent "Tuned Ferrite Rod" designed for MW (Medium Wave)

> > and really helps any receiver without a built in MW Antenna
> > Rod. Canister two (in middle) is a Balun that helps SW
> > reception very much."
> >
> >
> > i want to know ~ RHF
> > .
> > .
>
> I have a 20 foot straight wire in my garage, that works better for MW
> DXing than the ferrite rods in any radio I have, due to the fact that it
> is much further from any noise sources in the house. I imagine the 16
> foot wire being sold there would pick up some MW, but I doubt that
> adding the ferrite bar at the end helps one bit.

# 2304. Re: Is my antenna working?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-15 18:57:00 UTC
From: richardharrison@webtv.net
Message-ID: <29905-4198FBFC-289@storefull-3256.bay.webtv.net>
Source record: 86602

J.S. Snpw wrote:
"---I unplugged the antenna cable, the signal didn`t change."

You need to measure carrier level to determine FM signal strength. Once the "FM improvement threshold" signal is reached, very little increase in audio level results from increases in RF. It`s the magic which makes RF repeaters work well. All signals, weak and strong, are nearly as strong in audio levels.

Next. If you build kits, you probably have a way to test continuity. Check your antenna circuit for opens and shorts in all the right and wrong places.

Best regards, Richard Harrison, KB5WZI

# 2305. Re: FCC Amateur repeater database - if any

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-15 19:03:40 UTC
From: dplatt@radagast.org
Message-ID: <10phvcccar4nh96@corp.supernews.com>
Source record: 86601

>Gidday
>
>I want to do some RF coverage plots (theoretical) of the VHF/UHF
>repeaters in East Texas. I am looking for repeater callsigns,
>frequencies and Lat/Lon of the sites within a 100 feet or so. (Pref in
>WGS84)
>
>I dont seem to be able to find it in the FCC database. It seems to omit
>amateur stations altogether.

There is no requirement at all for amateur repeaters to be registered with the FCC, and as far as I know they do not make any attempt to maintain such a database. The FCC stopped requiring registration of amateur station locations, in most cases, some decades ago.

The best information you're likely to find would be from your local repeater frequency coordination council or organization. See the ARRL's page at http://www.arrl.org/nfcc/coordinators.htm to find your coordinator.

There's a couple of further gotchas, though. Many repeaters are not coordinated (there's no legal requirement that they be coordinated, as long as they aren't interfering with other repeaters), and many repeater owners are reluctant to publish the actual location of their repeater sites (for fear of vandalism or theft, I suspect).

You can find some information about repeaters on the ArtSci Publications page at www.artscipub.com/repeaters/, and the ARRL has a repeater directory and, I think, a version on CD-ROM. As far as detailed coverage analysis goes, though, I suspect that neither will have the detailed latitude/longitude/altitude information you'd need to do any sort of high-definition coverage maps in areas with hills.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

# 2306. Practical Wireless Magazine (UK) collection on ebay

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-15 19:31:10 UTC
From: Dennis Armstrong <dba@corewise.demon.co.uk>
Message-ID: <cnb05v$r6v$1$830fa79d@news.demon.co.uk>
Source record: 86603

Hi all

I am selling my collection of Practical Wireless magazines 91 issues
from 1965 to 1979 its here:-

http://cgi.ebay.co.uk/ws/eBayISAPI.dll?ViewItem&rd=1&item=6936115412&ssPageName=STRK:MESE:IT

It was a good magazine with plenty of constructional articles.

regards

# 2307. Re: Facts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-15 19:40:27 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <cnb0ng$s20$1@news.service.uci.edu>
Source record: 86605

Cecil Moore wrote:

> Reg Edwards wrote:
>
>> To clear away all misconceptions and confusion, try returning to
>> square one
>> and begin again with a clean slate.
>>
>> dV/dz = -(R+j*Omega*L)*I
>>
>> dI/dz = -(G+j*Omega*C)*V
>
>
> Those are essentially the differential equations used by Ramo and
> Whinnery to develop the following exponential equations for load
> matched transmission lines (no reflections):
>
> V = V+(e^-az)(e^-jbz)
>
> I = V+(e^-az)(e^-jbz)/Z0
>
> where 'a' is the attenuation factor. So why does an attenuated
> voltage drop while a current, attenuated by exactly the same
> percentage, doesn't drop?

Depends on whether 'a' is in series or in shunt.

73, ac6xg

## 2308. Re: Is my antenna working?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-15 19:44:39 UTC
From: Hitch <js_snow@hotmail.com>
Message-ID: <Xns95A2777B0C838jssnowhotmailcom@130.133.1.4>
Source record: 86604

> Next. If you build kits, you probably have a way to test continuity.

Well, duh. Shoulda thought of that!

Thanks

--
John Snow
"Pull hard and it comes easy"

# 2309. Re: Putting a Ferrite Rod at the Far-End of a Random Wire Antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-15 20:15:58 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10pi3ka9mggjje5@corp.supernews.com>
Source record: 86606
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

Yes. My response was intentionally simplified. Making a directional antenna is often not a viable option for an SWL, because they typically operate over a wide frequency range, and want to receive signals from many directions. This pretty much limits them to something like a rotatable log periodic antenna. Wire antennas can be made directional, but typically only in fixed or a small number of directions, and with directional patterns that change with frequency. Within the range of discussion, then, I don't believe it's realistic to attempt a directional antenna. The advertised antenna certainly doesn't produce any advantage in this regard.

Roy Lewallen, W7EL

Richard Fry wrote:
> "Roy Lewallen" <w7el@eznec.com> wrote
>
>>Once you have enough signal and noise to overcome
>>your receiver's internal noise, there's no advantage of any
>>further increase, since there's no improvement in the
>>signal to noise ratio.
>
> _________________
>
> Pardon the thread drift, but making the receive antenna directional can
> improve system SNR by reducing the total noise voltage delivered to the
> receiver input, as a ratio of the desired signal.
>
> RF
>

# 2310. Re: please need help with delta loop antenna better matching system than gamma match

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-15 20:42:38 UTC
From: drbob92031@aol.com
Message-ID: <20041115154238.06709.00000624@mb-m15.aol.com>
Source record: 86607

>Silvio" <silvioylstra@hotmail.com> wrote in message
>news:cmilr3$qbh$1@news-02.connect.com.au...
>> hi.........
>> please need help with delta loop antenna better matching system than gamma
>> match.............. please could any body sugest any thing or way to match
>> a
>> vee quad , dela loop other than gamma match and my be supply me with
>> details
>> how to assemble and fit to antenna .........gee some must no a better
>> way..
>> please help me 73s .......... thanks every one that may be
>> able
>> to help ............. silvioylstra@hotmail.com

Maybe too much infomation gets in the way. When in NYC on a city lot, I put up a 20M delta loop, (upside down IE the apex at the bottom. The apex was open and I fed it directlyw ith 73 ohm coax, No balun no tuner. Worked FB, go figure
Bob...WA2EAW

# 2311. Re: DOUBLE RESONANCE IN DIPOLE...THE CAUSE?????

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-15 20:57:25 UTC
From: radio913@aol.com
Message-ID: <1d15af91.0411151257.2e307307@posting.google.com>
Source record: 86608

"Tam/WB2TT" <t-tammaru@c0mca$t.net> wrote in message
news:<JLmdnXy8r59XsgXcRVn-qw@comcast.com>...
>> >
> >
> > raising the height of the dipole above the ground
> > from 3.5 to 6.5 feet was one of the things i did to
> > fix this problem.
> >
> > The other one no one has guessed yet...
> >
> >
> > S.
> This sounds like 20 questions. You are not telling us what you have. One
> would not expect somebody to measure an antenna at a height of 3 feet. A
> dipole would have an impedance of around 75 Ohms, which would give an SWR
> into 50 Ohms of around 1.5:1 Are you using 50 Ohm coax and a 50 Ohm meter?

Yes, all 50 Ohms.

> Is there a gamma match, or such, to adjust?

No. But hint: a physical parameter of the
dipole was adjusted.

Is it a dipole or a folded
> dipole? Is there a balun? Did you buy the antenna or build it (I suspect the
> intent would be different)? Since you are using an SWR meter, are you
> putting enough power into it to get out of the nonlinear range?
>

MFJ-259. Home-made dipole using aluminum tubing.

There are only so many physical parameters of a
dipole, folks! Just list them and you should hit it!

Slick

## 2312. Homebrew high gain FM broadcast antenna ??

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-15 23:53:47 UTC
From: Uwe <outhouse@midcoast.com>
Message-ID: <BDBEABBE.1032D%outhouse@midcoast.com>
Source record: 86609

I like to put up a big hi gain FM broadcast band antenna (by big I mean 15 - 20 feet).

I can get the formulas for the spacing of the reflectors and directors from literature, but it always says further optimization will be necessary.

This 'further optimization' might prove difficult and I wonder if anybody here has experience with this or has built one of these antennas??

Uwe

# 2313. Re: DOUBLE RESONANCE IN DIPOLE...THE CAUSE?????

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-16 00:27:20 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <8qOdnZqnzvKi1ATcRVn-sQ@comcast.com>
Source record: 86610

"Dr. Slick" <radio913@aol.com> wrote in message
news:1d15af91.0411151257.2e307307@posting.google.com...
> "Tam/WB2TT" <t-tammaru@c0mca$t.net> wrote in message
> news:<JLmdnXy8r59XsgXcRVn-qw@comcast.com>...
>>> >
>> >
>> > raising the height of the dipole above the ground
>> > from 3.5 to 6.5 feet was one of the things i did to
>> > fix this problem.
>> >
>> > The other one no one has guessed yet...
>> >
>> >
>> > S.
>> This sounds like 20 questions. You are not telling us what you have. One
>> would not expect somebody to measure an antenna at a height of 3 feet. A
>> dipole would have an impedance of around 75 Ohms, which would give an SWR
>> into 50 Ohms of around 1.5:1 Are you using 50 Ohm coax and a 50 Ohm
>> meter?
>
>
> Yes, all 50 Ohms.
>
>
>> Is there a gamma match, or such, to adjust?
>
> No. But hint: a physical parameter of the
> dipole was adjusted.
>
>
>
> Is it a dipole or a folded
>> dipole? Is there a balun? Did you buy the antenna or build it (I suspect
>> the
>> intent would be different)? Since you are using an SWR meter, are you
>> putting enough power into it to get out of the nonlinear range?
>>
>
> MFJ-259. Home-made dipole using aluminum tubing.
>
> There are only so many physical parameters of a
> dipole, folks! Just list them and you should hit it!
>
>

> Slick

Having no adjustments, and presumably no 62 Ohm coax, you must have bent it into a V to get 50 Ohms. If you put a parasitic element on it, it is not a dipole.

Tam/WB2TT

# 2314. Re: Ringo Ranger II

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-16 00:32:29 UTC
From: kelly@dvol.com
Message-ID: <d22b54c3.0411151632.5ba4058c@posting.google.com>
Source record: 86611

Howard <mensch90249@yahoo.com> wrote in message
news:<4euep09o68db8evekqsi58eotjpf9nbfnt@4ax.com>...
> On Sat, 13 Nov 2004 23:25:12 -0800, "Harbin" <harbinjr@adelphia.net>
> wrote:
>
> >Howdy Y'all:
> >Chushcraft says that the Ringo Ranger II is the latest design featuring
> >three 5/8 wave radiating elements and an adjustable 1/8 wave phasing stub.
> >My question is why a 1/8 phasing stub? Should it be more like 3/8 or
> >somthing, and why only
> >one phasing stub, should there not be 2? And is the outside of the coax that
> >comes from the ground plane a radiating
> >element? This antenna has me scratching my head, any ideas?
> >
> >Harbin
> >
> Sounds like marketing in action; I'd call it a two element colinear
> with a decoupling section at the bottom.

It's a decent enough antenna but the real marketing hype lies in the
claim that those three lame whiskers which protrude from the base of
the thing act as "decoupling sections". Which don't work worth a hill
of beans in their advertised role *particularly* with this antenna
which is notorious for tossing RF back into le shack. The way to
actually clean up a Ringo II and get it cooking properly is to install
an RF choke wound, beaded or otherwise near the feedpoint.

> Just for giggles, what gain
> does Witchcraft claim?
> Howard

w3rv

# 2315. Re: Homebrew high gain FM broadcast antenna ??

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-16 04:49:29 UTC
From: Uwe <outhouse@midcoast.com>
Message-ID: <BDBEF10B.10610%outhouse@midcoast.com>
Source record: 86612

Bill, I was taken aback by your somewhat harsh response and I hope you are not speaking for everybody, but just for yourself.

What, in your opinion, does not qualify in my question, the fact that I am not allowed to transmit on the frequency I wish to receive??

The physical laws are the same, be it for a 6m antenna, for example, or a FM broadcast receiving antenna. In fact I was thinking in stripping my Cushcraft 13 element 2 m antenna for the purpose and just lengthen all the elements.

I hope others will be more inclined to share what they know.

73 Uwe
KB1JOW

> From: Bill Turner <noway@nohow.com>
> Organization: http://extra.newsguy.com
> Reply-To: noway@nohow.com
> Newsgroups: rec.radio.amateur.antenna
> Date: Mon, 15 Nov 2004 18:02:05 -0800
> Subject: Re: Homebrew high gain FM broadcast antenna ??
>
> On Mon, 15 Nov 2004 23:53:47 GMT, Uwe <outhouse@midcoast.com> wrote:
>
>> I like to put up a big hi gain FM broadcast band antenna (by big I mean 15 -
>> 20 feet).
>>
>> I can get the formulas for the spacing of the reflectors and directors from
>> literature, but it always says further optimization will be necessary.
>>
>> This 'further optimization' might prove difficult and I wonder if anybody
>> here has experience with this or has built one of these antennas??
>>
>> Uwe
>
> ----------
>
> This newsgroup is for amateur radio antennas. Please take your FM
> broadcast question elsewhere. Thank you.
>
> --
> Bill W6WRT
>

# 2316. Re: Homebrew high gain FM broadcast antenna ??

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-16 05:17:23 UTC
From: richardharrison@webtv.net
Message-ID: <29905-41998D63-370@storefull-3256.bay.webtv.net>
Source record: 86613

UWE wrote:
"I would like to put up a big hi gain FM broadcast band antenna."

1.5 wavelengths is about 15 feet near the center of the FM broadcast band. Kraus gives an example of this 6-element Yagi. It has a radiator, reflector, and 4 directors in Fig. 8-29 on page 248 of his 3rd edition of "Antennas". Directivity is about 12 dBi and bandwidth is 10%. Construction is not too critical because the space between its elements is fairly wide.

I have built Yagis and been pleased with their performance.

Best regards, Richard Harrison, KB5WZI

# 2317. Re: Is it worth it? Will I notice?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-16 07:11:35 UTC
From: Roger <Delete-Invallid.stuff.groups@tm.net>
Message-ID: <2l9jp0d20j7s8506vsvotubmdmrgq0hd8r@4ax.com>
Source record: 86614

On Sat, 13 Nov 2004 12:35:32 -0500, "J. Mc Laughlin"
<jcm@power-net.net> wrote:

>A long time ago, when there was not so much man-made noise, I found that in
>the almost-flat-country at the extreme edges of coverage from a base station
>to a mobile station, the rate of decrease was roughly one db per statute
>mile. This was in the 160 MHz range.
> The mobile is so far away from the base that the received signal is
>"noisy." I am considering rural locations and a terrain without significant
>hills.
>
> On the average, +3db of power at the base provided another 3 miles of
>(poor quality) coverage. More often than not, coverage was limited by the
>transmitter power of the mobile and the noise level at the base!
>
> The question asked can start to be answered when one knows the value
>placed on increased coverage.
>

I'll bet I can get good reliable converage to a 100 miles with a 5
watt HT and a rubber duck with todays receivers.
50 to 75 mile coverage to mobiles.

It's worked on 52 simplex every time I've tried it.
Fasten the belt clip to the strap above the arm rest with the rubber
duck sticking straight up into the big window, Hook a boom mike and
ear piece to the HT and put my ANR head set over it.
Call CQ and darn near get a pile up.

Ain't nothing like a good tall antenna.

Roger Halstead (K8RI & ARRL life member)
(N833R, S♯ CD-2 Worlds oldest Debonair)
www.rogerhalstead.com
> 73 Mac N8TT

# 2318. Re: Need Near Field equations problems

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-16 08:16:32 UTC
From: Frank <ve6cb@NOSPAM.telus.net>
Message-ID: <miLld.173731$9b.35205@edtnps84>
Source record: 86617
Cross-posted to: sci.physics.electromag,sci.physics.research,sci.physics,rec.radio.amateur.antenna

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:r24ap05qqdaa1ge6vdf4ioibqhvjf378tk@4ax.com...
> On Fri, 12 Nov 2004 19:07:34 +0000 (UTC), curiousjohn4@yahoo.com
> (curiousjohn4) wrote:
>> In fact, there was significant induced voltage from a very long wire.
>
> Hi OM,
>
> You are treading water here. There is more than radiation at work
> very close to an antenna. Consider your own language above: Induction
> (or even capacitive coupling).
>
> 73's
> Richard Clark, KB7QHC

I think Richard has hit the nail on the head. I wish calculation of electromagnetic fields could be reduced to a simple equation. Any undergraduate text on electromagnetics barely scratches the surface. I suggest you check the site at www.nec2.org and download the .pdf version of the "NEC Program Description -- Theory". Gives an overview of "Method of Moments". As a foundation Kraus' Electromagnetics may help, and is available used (and cheap) at www.bn.com. Also at the same site a reprint of "Field Computation by Moment Methods" by Roger F. Harrington can be obtained for $33.50. Then there is the "Finite Element" method as used by "Ansoft's" HFSS".

Regards,

Frank

# 2319. Re: Homebrew high gain FM broadcast antenna ??

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-16 08:18:13 UTC
From: Bob Bob <bcnntp@optusnet.com.au>
Message-ID: <6npo62-9cq.ln1@p400bob.lse.com.au>
Source record: 86616

Hi Uwe

I'd suspect that the optimisation you are talking about is not going to make a lot of difference to your end use. You tend to be able to tune yagi's for best forward gain or best front to back ratio but not both together. You have the added complication that if you want to cover the entire FM band a single yagi would be a major compromise and it might be better looking into a different kind of design like a log periodic or axial mode helix.

As a general rule too, the longer the yagi the narrower bandwidth its operation is. My gut feel for a 20ft FM band yagi antenna would be only for use over maybe 200kHz. It would of course still work further from the design frequency but at reduced performance.

As an aside some of the optimisation will be due to slight material differences and deviations from original mounting techniques (eg through boom vs on top, proximity to buildings etc)

Would you care to share you reasons for the high gain design? Is it one distant station you want or just for general DX use? Might you be trying to reduce interference effects?

Cheers Bob VK2YQA

Uwe wrote:
> I like to put up a big hi gain FM broadcast band antenna (by big I mean 15 -
> 20 feet).
>
> I can get the formulas for the spacing of the reflectors and directors from
> literature, but it always says further optimization will be necessary.
>
> This 'further optimization' might prove difficult and I wonder if anybody
> here has experience with this or has built one of these antennas??
>
> Uwe
>

# 2320. Re: Ringo Ranger II

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-16 08:18:40 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0411160018.6e22c01c@posting.google.com>
Source record: 86615

Howard <mensch90249@yahoo.com> wrote in message
news:<4euep09o68db8evekqsi58eotjpf9nbfnt@4ax.com>...
> On Sat, 13 Nov 2004 23:25:12 -0800, "Harbin" <harbinjr@adelphia.net>
> wrote:
>
> >Howdy Y'all:
> >Chushcraft says that the Ringo Ranger II is the latest design featuring
> >three 5/8 wave radiating elements and an adjustable 1/8 wave phasing stub.
> >My question is why a 1/8 phasing stub? Should it be more like 3/8 or
> >somthing, and why only
> >one phasing stub, should there not be 2? And is the outside of the coax that
> >comes from the ground plane a radiating
> >element? This antenna has me scratching my head, any ideas?
> >
> >Harbin
> >
> Sounds like marketing in action; I'd call it a two element colinear
> with a decoupling section at the bottom.

So do I...

Just for giggles, what gain
> does Witchcraft claim?

I'm sure too much....:/ They always did tend to lean to funky gain
numbers, and references for verticals...In the real world, the RR2 is
considered slightly inferior to the dual 5/8 isopole, which claimed a
fairly realistic 3 dbd if I remember right. And they don't claim the
lower decoupling cone on the isopole is a 3rd element either. Also,
the element lengths on the RR2 are a little off from the normal dual
5/8.. I think thats one reason for the "odd" length of the phasing
stub. It is a fairly decent antenna though for the price. The lower
decoupling section did help the antenna a lot. But I don't really
consider the 50 inch coax section above the radials a 3rd radiating
element. If I'm thinking this right, if that was the case, it would be
out of phase with the lower actual element...?? Or it would
seem..There is no phasing stub between the coax section, and the lower
element. Just the matching device. One tidbit...I found a simple well
decoupled 1/4 wave GP with the tip at the same height as the tip of
the RR2 is nearly equal to the RR2..Pretty close anyway. MK

# 2321. Re: Homebrew high gain FM broadcast antenna ??

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-16 12:55:11 UTC
From: nospam@nouce.bellatlantic.net
Message-ID: <8qtjp01dcif8fenete364rftoqhjdvihmc@4ax.com>
Source record: 86618

On Mon, 15 Nov 2004 23:53:47 GMT, Uwe <outhouse@midcoast.com> wrote:

>I like to put up a big hi gain FM broadcast band antenna (by big I mean 15 -
>20 feet).
>
>I can get the formulas for the spacing of the reflectors and directors from
>literature, but it always says further optimization will be necessary.

Uwe,

Check out www.cebik.com he has an article "some notes on FM BC
antennas". Or at least something like that. He does extensive
antenna modeling.

One of the problwms with FB broadcast antennas is that 88-108 (US FM
allocation) is a very wide band percentage wise to make a good yagi
for. Programs like YO, QY4, are likely inadaquate for wide
bandwidth antennas so you may end uo with EzNEC or one of the
NEC varient calculation programs for antenna design.

If you were to take a 13b2 and lengthen the elements they would be too
closely space to get the same performace as the origional. You have
to scale length, spacing (and boom length) and diameter by the same
factor to get the same antenna at a different frequency. IE:
everything would be about 1.45 larger to optimize for 100Mhz.

Good luck.
Allison

# 2322. Re: Homebrew high gain FM broadcast antenna ??

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-16 13:57:57 UTC
From: K7MEM <k7mem@myrealbox.com>
Message-ID: <cnd115$6mo5@cui1.lmms.lmco.com>
Source record: 86619

Uwe wrote:
> CLIP..
> The physical laws are the same, be it for a 6m antenna, for example, or a FM
> broadcast receiving antenna. In fact I was thinking in stripping my
> Cushcraft 13 element 2 m antenna for the purpose and just lengthen all the
> elements.

It would probably be a poor idea to modify the 2M antenna. As someone else mentioned, your spacing would not be correct.

A 15 foot long boom would support 1 Reflector, 1 Driven Element, and 5 Director elements. This would give you a estimated gain of almost 10 dBd. Normally the bandwidth of these antennas is about 7% at the design frequency. For your use this would be about 6.5 MHz. If you are only interested in a small portion of the band, this will work fine.

Getting higher gains is a case of diminishing returns. Typically, to obtain a 3 db increase in gain you need to double the number of director elements and effectively double the boom length. So, going from 15 to 20 feet will only gain you another 1 or 2 db. In cases of extreme fringe operation, this may make a difference, but mostly you won't notice it. If you want to play with boom lengths and element spacing try one of my web pages at:

http://www.k7mem.com/Electronic_Notebook/antennas/yagi_vhf.html

Optimization is nice to do if you have the equipment, but with careful construction, you should be able to build a antenna that is very close to the intended specifications and not require any tedious tweaking.

For other antenna designs you might try Ian White's (G3SEK) web site at:

http://www.ifwtech.co.uk/g3sek/diy-yagi

If your intent is to cover the entire FM band, you may want to look for information on Log-Periodic antennas. Gain will not be big, but the bandwidth will be.

--
Martin E. Meserve - K7MEM
http://www.k7mem.com

# 2323. Amateur Radio Elmers Resource Directory

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-16 14:08:05 UTC
From: "Paul W. Schleck" <pschleck@novia.net>
Message-ID: <419a091d$0$9373$45beb828@newscene.com>
Source record: 86620
Cross-posted to:
rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.homebrew,rec.radio.info

The Amateur Radio Elmers Resource Directory, a list of experts, mentors, and gurus for amateur radio on the Internet, went on indefinite hiatus on June 1, 2000 after just over 9 years of service. This decision was not forced upon me by anyone for any particular legal or technical reason. Rather, I decided to retire from maintenance to focus on other personal and professional interests and obligations.

I also felt that I had taken this project to the limit of my expertise and spare time in terms of format, visibility, automation of maintenance, effective recruiting, and even good Web design. It's clear that the Internet had changed greatly over the 9 years that the Directory had been in existence. The Directory had evolved from a flat text file edited on a VAX running VMS to a well-featured Web site. However, in that time, much better amateur radio-related web sites had emerged (including QRZ, Ham Radio Online, and ARRL) that make my site rather simplistic by comparison. Also, it's clear that many more enhancements would be required to make the Directory more maintainable and secure. One requirement that the Directory did not address is reasonably shielding the Elmers from having their E-mail addresses harvested for junk-mail distribution lists.

I want to emphasize that I do believe that using the Internet, the Usenet Newsgroups, and the World-Wide Web to bring Elmers and amateurs requiring assistance together continues to be worthwhile. Because of this, I would consider a highly-qualified and motivated volunteer to take it over immediately. The Directory consisted of a moderate number of large text files, scripts, and other configuration files. It's neatly arranged, and can probably be easily transplanted to another Unix/Linux environment. I would also be willing to assist with importing the data into a database such as mySQL. To help transition this project to another maintainer, I had prepared a maintainer's guide, available on request. The ideal candidate will be a motivated self-starter and self-teacher possessing several years of experience in:

- Unix/Linux
- C or Java
- HTML
- Perl or Python
- Procmail
- Version control systems such as SCCS, RCS, CVS, etc.

(this also implies that you have the above tools installed in your environment)

preferably on or more of the following:

- SQL
- PHP
- CSS

and have approximately 4-6 hours of spare time per month for maintenance. A track history of successfully completing projects would be a firm requirement. Please note that hosting sites are already available. Offers to host the project, but not maintain it, are not being sought at this time.

Familiarity with news.answers formatting conventions and the auto-faq FAQ Management and Posting Package would be a plus. Concrete proposals for enhancing the Directory to be a top-10 amateur-radio-related Web site would also be desirable. I would also consider the Directory being incorporated into an existing commercial amateur-radio-related Web site as long as the essential non-commercial character of the Directory was maintained.

If you feel that you possess the interest, motivation, and immediate, hit-the-ground-running, skill set to do this, please send your statement of interest and any proposals you wish to make regarding your plans for future enhancements to elmers-request@novia.net.

I would like to thank all of the volunteer Elmers, as well as courteous users of the Directory, for making this service a success, as well as an enjoyable experience for me over 9 years.

--
73, Paul W. Schleck, K3FU
elmers-request@novia.net

# 2324. Re: Homebrew high gain FM broadcast antenna ??

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-16 14:46:21 UTC
From: Uwe <outhouse@midcoast.com>
Message-ID: <BDBF7CF0.10619%outhouse@midcoast.com>
Source record: 86621

Bob, the reason to want the high gain is as follows.

I live in Maine south of the Canadian border, close but not quite close enough to receive Canadian FM stations. I can receive one station faintly using a Radio Shack BC band antenna and wanted to expand on that with a better antenna and possibly a change in IF filters in the tuner I use.

And I thought that a very high gain antenna with its narrow pattern would also aide in adjacent channel rejection. I realize that it could be a problem covering the entire BC band and I am not set on any particular design, I first wanted to see what people here had to say.

Regards Uwe
KB1JOW

> From: Bob Bob <bcnntp@optusnet.com.au>
> Newsgroups: rec.radio.amateur.antenna
> Date: Tue, 16 Nov 2004 19:18:13 +1100
> Subject: Re: Homebrew high gain FM broadcast antenna ??
>
> Hi Uwe
>
> I'd suspect that the optimisation you are talking about is not going to
> make a lot of difference to your end use. You tend to be able to tune
> yagi's for best forward gain or best front to back ratio but not both
> together. You have the added complication that if you want to cover the
> entire FM band a single yagi would be a major compromise and it might be
> better looking into a different kind of design like a log periodic or
> axial mode helix.
>
> As a general rule too, the longer the yagi the narrower bandwidth its
> operation is. My gut feel for a 20ft FM band yagi antenna would be only
> for use over maybe 200kHz. It would of course still work further from
> the design frequency but at reduced performance.
>
> As an aside some of the optimisation will be due to slight material
> differences and deviations from original mounting techniques (eg through
> boom vs on top, proximity to buildings etc)
>
> Would you care to share you reasons for the high gain design? Is it one
> distant station you want or just for general DX use? Might you be trying
> to reduce interference effects?
>
> Cheers Bob VK2YQA
>

>
>
> Uwe wrote:
>> I like to put up a big hi gain FM broadcast band antenna (by big I mean 15 -
>> 20 feet).
>>
>> I can get the formulas for the spacing of the reflectors and directors from
>> literature, but it always says further optimization will be necessary.
>>
>> This 'further optimization' might prove difficult and I wonder if anybody
>> here has experience with this or has built one of these antennas??
>>
>> Uwe
>>

# 2325. Re: Need Near Field equations problems

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-16 14:49:36 UTC
From: richardharrison@webtv.net
Message-ID: <9795-419A1380-411@storefull-3255.bay.webtv.net>
Source record: 86522

Curious John wrote:
"Can someone please provide a correct near field equation that I can understand?"

The relation between the current in a wire and the magnetic field intensity (H) around it at any distance (r) is:

H = 2I / r
I is the current in a long straight wire.

The magnetomotive force around a complete contour around a wire is: 4Pi (I)

If the current is changing, the magnetic field is likewise changing. An electric field is induced in the space around the wire. The voltage induced in a wire properly immersed in the field is:

-d Phi /dt

The induced voltage is proportional to the rate of change of the magnetic flux and is negative, that is it opposes the changing flux.

When an electric field is imposed on a dielectric, it places an electrical strain in the dielectric. This causes a dielectric displacement current (D):

D = dielectric constant x volts/m of the electric field. So D is equivalent to an electric flux density. Displacement current is greater in materials with larger values of dielectric constant. The value for air or space is one.

Best regards, Richard Harrison, KB5WZI

# 2326. Re: Homebrew high gain FM broadcast antenna ??

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-16 15:53:35 UTC
From: richardharrison@webtv.net
Message-ID: <11130-419A227F-158@storefull-3251.bay.webtv.net>
Source record: 86523

Ewe wrote:
"I realize that it could be a problem covering the entire BC band and I am not set on any particular design."

Kraus` 6-element Yagi on page 248 of the 3rd edition of "Antennas" has 12 dBi doirectivity and a 10% bandwidth. FM channels are 200 KHz wide. 10% of 100 MHz is 10 MHz. That is 50x what you need for a single channel.

If you want to cover the entire FM band with an antenna, you can do it easily with a rhombic. Arnold B. Bailey`s rhombic in "TV and Other Receiving Antennas" scales to: two #10 wires 72 feet long, separated by 36 feet at the midpoint. Overall length is 61 feet. Surge resistance is 600 ohms, and 600 ohms is used as the terminating resistor value. Bailey uses 300-ohm twinlead as a transmission line. Gain is 14.5 dBd (or less). Bandwidth is 30% for 1 dB down. That`s 1.5x the width (20 MHz) of the U.S. FM band.

What you probably need is height. Signal drops fast in the shadow of the horizon or an obstruction.

Best regards, Richard Harrison, KB5WZI

# 2327. Re: Is my antenna working?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-16 16:11:42 UTC
From: Hitch <js_snow@hotmail.com>
Message-ID: <Xns95A3535EAB854jssnowhotmailcom@130.133.1.4>
Source record: 86524

richardharrison@webtv.net (Richard Harrison) wrote in news:29905-4198FBFC-289@storefull-3256.bay.webtv.net:

> J.S. Snpw wrote:
> "---I unplugged the antenna cable, the signal didn`t change."
>
> You need to measure carrier level to determine FM signal strength. Once
> the "FM improvement threshold" signal is reached, very little increase
> in audio level results from increases in RF. It`s the magic which makes
> RF repeaters work well. All signals, weak and strong, are nearly as
> strong in audio levels.
>
> Next. If you build kits, you probably have a way to test continuity.
> Check your antenna circuit for opens and shorts in all the right and
> wrong places.
>
> Best regards, Richard Harrison, KB5WZI
>
>

Yep, there was a short in my coax. Fixed it and the signal improved 1000%. Now I need to address hum.

--
John Snow
"Pull hard and it comes easy"

# 2328. Re: Is my antenna working?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-16 16:58:10 UTC
From: richardharrison@webtv.net
Message-ID: <11129-419A31A2-470@storefull-3251.bay.webtv.net>
Source record: 86525

John Snow wrote:
"Now I need to address hum."

It is likely the FM kit is 100% solid-state. Filament wiring and leakage are out of the question.

Shielding is necessary on low-level, high-impedance audio wiring. Continuity of shields and their supposed connections is mandatory.

Low ripple is needed in the d-c power supply. The placement of the supply and its components must be isolated so that these do not induce a-c into sensitive circuits.

Ground connections within the FM circuit must be sequenced and arranged so that a low-level circuit is not sharing the ground return of a high-level circuit. This imposes high-level noise (hum) in the low-level circuit. This is sometimes called a ground loop.

I recall solving the phono oscillator hum problem just by putting enough distance between the oscillator and the receiver.

Best regards, Richard Harrison, KB5WZI

## 2329. 6 mtr antenna help

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-16 18:44:38 UTC
From: tonester <tonester1@cbuk.freeserve.co.uk>
Message-ID: <cndhqp$3cj$1@newsg1.svr.pol.co.uk>
Source record: 86526

Looking to build a decent 6 mtr antenna ... probably a loop...

space no problem indoor out out...

want to hit local repeater 50 miles away...

Have you had experience and can you recommend a good one..!!!
THX in advance

Tony

# 2330. Re: 6 mtr antenna help

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-16 18:49:23 UTC
From: Keyboard In The Wilderness <Key@Kennel.net>
Message-ID: <TYrmd.145297$hj.29703@fed1read07>
Source record: 86527

Most if not all Six meter repeaters use vertical antennas -- hence vertical
polarization
When looking at loops -- choose a suitable one.
Lots of 6M antenna projects at AC6V's site -- URL:
http://ac6v.com/antprojects.htm#6M

--
The Anon Keyboard
I doubt, therefore I might be

"tonester" <tonester1@cbuk.freeserve.co.uk> wrote in message
news:cndhqp$3cj$1@newsg1.svr.pol.co.uk...
> Looking to build a decent 6 mtr antenna ... probably a loop...
>
> space no problem indoor out out...
>
> want to hit local repeater 50 miles away...
>
> Have you had experience and can you recommend a good one..!!!
> THX in advance
>
> Tony

# 2331. Re: 6 mtr antenna help

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-16 19:34:12 UTC
From: Dale Parfitt <par@parelectronics.com>
Message-ID: <UCsmd.2952$qS4.274@trnddc09>
Source record: 86528

"tonester" <tonester1@cbuk.freeserve.co.uk> wrote in message
news:cndhqp$3cj$1@newsg1.svr.pol.co.uk...
> Looking to build a decent 6 mtr antenna ... probably a loop...
>
> space no problem indoor out out...
>
> want to hit local repeater 50 miles away...
>
> Have you had experience and can you recommend a good one..!!!
> THX in advance
>
> Tony

I don't think you want horizontal polarization for a repeater- everyone
(except ATV) I am familiar with is vertically polarized.

Dale W4OP

# 2332. Re: Homebrew high gain FM broadcast antenna ??

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-16 19:41:28 UTC
From: Bob Bob <bcnntp@optusnet.com.au>
Message-ID: <ao1q62-n8v.ln1@p400bob.lse.com.au>
Source record: 86529

Hi Uwe

I cant resist... Brrrr COLD! I visited Toronto early this year and havent gotten over the throat irritation yet! It was about 33C when I left Sydney and -25C when I got to Toronto!

Well then I can now see the use of employing the narrowest band design possible, assuming you only want the Canadian station. Personally I wouldnt want to limit its bandwidth because I *might* one day want to use it for another distant station.

Is it worthwhile doing an analysis of those stations that might interfere? Like if the interfering source is at 90 degrees heading from the station you want, anything that starts as a dipole element will help. If its directly behind you may want to adjust for best front to back, even to the point of tuning the reflector with some C. This BTW is much easier on a quad reflector than a yagi. (ie make a "Qagi")

My theoru isnt good on this, but I can see you want a design that has got low sidelobes and good front to back. Yagis can be optimised for all manner of things so one design you see may work great for f/b but bad in sidelobes. Is a phased array better? (ie mount your boom at right angles to the station and use 2 element designs) How does a quad or helix compare? Does choosing circular polarisation help? This is actually a more difficult problem than first thought.

My path would be not to think too much, but put up a helix and see how it performs. I use to have one on 2M for satellite work that I also used for terrestrial TV and FM. (Very wide band) I was however in a zero interference area. Given though that I guess you want to go with a yagi design, my thought is to build it to the Canadian station frequency with a tuned refelector and also see what happens. When you have built it plot the pattern at various frequencies. Have a look at Mr Cebiks web page on OWA yagi's. (http://www.cebik.com/2mowa1.html) He often shows radiation patterns and lots of other data. Well worth a look.

Apologies for the length!

Cheers Bob VK2YQA

Uwe wrote:
> Bob, the reason to want the high gain is as follows.
>
> I live in Maine south of the Canadian border, close but not quite close
> enough to receive Canadian FM stations. I can receive one station faintly
> using a Radio Shack BC band antenna and wanted to expand on that with a
> better antenna and possibly a change in IF filters in the tuner I use.

>
> And I thought that a very high gain antenna with its narrow pattern would
> also aide in adjacent channel rejection. I realize that it could be a
> problem covering the entire BC band and I am not set on any particular
> design, I first wanted to see what people here had to say.
>
> Regards Uwe
> KB1JOW
>
>

## 2333. Champagne on Top of 100" Tower

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-16 20:42:55 UTC
From: Al <ABurzynski@nojunk.satx.rr.com>
Message-ID: <jDtmd.35527$Zr3.26784@fe1.texas.rr.com>
Source record: 86530

What to do when the propagation is not in your favor:

http://www.oz1adl.com/html/video.html

Al KA5JGV
San Antonio, Tx.

# 2334. Re: Homebrew high gain FM broadcast antenna ??

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-16 20:54:20 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <_JmdnYpWE7RM9QfcRVn-vA@comcast.com>
Source record: 86531

"Uwe" <outhouse@midcoast.com> wrote in message
news:BDBEABBE.1032D%outhouse@midcoast.com...
>I like to put up a big hi gain FM broadcast band antenna (by big I mean
>15 -
> 20 feet).
>
> I can get the formulas for the spacing of the reflectors and directors
> from
> literature, but it always says further optimization will be necessary.
>
> This 'further optimization' might prove difficult and I wonder if anybody
> here has experience with this or has built one of these antennas??
>
> Uwe
>
Uwe,

I suspect you can buy a commercially made FM antenna for the cost of materials that it would cost to build your own (excluding the rhombic). Optimization is nor very practical unless you want to spends 100's of $$$ on test equipment. The large Radio Shack FM antenna, if they still make it, should do the job. An ANTENNA MOUNTED preamp might also help. Since you are trying to pick up distant stations, antenna height is very important.

Tam/WB2TT

# 2335. Re: 6 mtr antenna help

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-16 21:27:27 UTC
From: richardharrison@webtv.net
Message-ID: <9796-419A70BF-182@storefull-3255.bay.webtv.net>
Source record: 86532

Tony wrote:
"Looking to build a decent 6 mtr antenna... probably a loop... Space no problem indoor or out..."

I suppose vertical polarization is used in the repeater you would like to reach 50 miles away, so that it is compatible with mobiles.

Hopefully your repeater antenna is at high altitude on a TV tower or some such lofty perch. You need about 1250 feet of elevation to provide a horizon 50 miles away.

Height of the station antenna on your end reduces the repeater antenna height required. A vertical loop antenna is fed in the middle of a vertical side and makes an array of two 1/4-wave vertical dipoles, separated in space by 1/4-wave. It has slightly more gain in the direction of the plane of the vertical sides. The ground quality surrounding the antenna affects its performance but radials are not worthwhile.
There is a slight gain versus a groundplane antenna.

In free space, the radiation resistance of a square quad loop of one wavelength circumference is about 120 ohms. It would work best with balanced feed.

ON4UN`s "Low-Band DXing" has a chapter "Large Loop Antennas" which would likely be worth a look.

Best regards, Richard Harrison, KB5WZI

# 2336. 57186 Mining the Web: Advanced eigenVector Search Method with kriging and cross-Pollination: http://www.eigensearch.com 57186

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-16 22:01:50 UTC
From: Web Science <kevansb2b@yahoo.com>
Message-ID: <419a8e7a$0$31279$9a6e19ea@news.newshosting.com>
Source record: 86539

Site and Features: http://www.eigensearch.com

Search engine, eigenMethod, eigenvector, mathematical, manifolds, science, technical, search tools, eigenmath, Jacobian, quantum, mechanics, manifolds, science, physics, chemistry, law, legal, government, home, office, business, domain lookup, medical, travel, food, university students, searching, searchers, surfing, advanced search, search tools

Chemistry, mathematics, physical sciences, engineering, aerospace, astronomy, photography, news, computers, software, investment, venture capital, stakeholder, Biology, Chemistry, Geosciences, Biotechnology, Medical, Nursing, Anthropology, psychology, psychiatry, Philosophy, History, Business, bachelor, Ph.D., Masters, administrative, MBA, eigenMethod, eigenvector, mathematical, manifolds, science, technical, search tools, eigenmath, Jacobian, quantum, mechanics, manifolds, physics, chemistry, law, legal, health, government, home, office, business, domain, lookup, medical, travel, food, university, students, search, searches, search engine, directory, directories, category, categories, help, searching, searchers, surfing, advanced search, search help, search tips

Beta Users and advanced features Sign-up here...
http://www.eigensearch.com/inc/constructs/betasignup.htm

Central to eigenSearch Advanced is the freedom to construct complex search explorations, save the forms for later use; and apply weight factor to each phrase and term. EigenSearch processing will apply eigenvector math and Jacobian matrices to construct search terms that are tailored to your exploration. Cross-pollination is also applied as described below. The eigenvector approach is clearly highly advanced and would normally be useful for very sophisticated applications. Nevertheless, anyone may utilize the method. An advanced form is simply a matrix in which the user types words and phrases randomly in a multi-cell form (please click thumbnail to view).

Advanced features

EigenOperator (cross pollination) and eigenvector constructs
Cross document content pollination within every web site directory tree (unlike conventional search engines and tools eigenSearch checks for your terms and phrases and drills down though multiple directory documents)
EigenSearch cross-pollination is applied to documents within the same (tree) level in a URL (peer documents). Thereby limiting the amount of contamination of results
Illustration:
"Blood Hounds" + "English Breed" will present documents that contain either of these phrases within the same peer level in a document storage structure; for example, within the directory: www.smartdogs/hounds.
eigenSearch limits pollinating occurrences outside a peer level. For example; "blood hounds" + "English breed" found in two different directories would not report an eigenSearch result: i.e. "Blood hounds" found in www.smartdogs/hounds and "English Breed" found in. www.smartdogs/hounds/Europe would not be found. EigenSearch therefore searches

one tree (peer) level in a site and looks for multiple occurrences of multiple phrases across all documents within this peer level.
Corporate products can be tailored to drill down infinite levels for eigenOperator (cross-pollinating operator) matching.
eigenSearch single phrase results will find all documents and show the results as independent findings. This way the user can find results across many documents and the combined highly constrained results are reserved for a single level cross pollination. Extremely high (cross-pollinating) eigenValues will correspond to finely granular and refined search explorations.

Beta users receive the following features:
Login and password
Save search constructs for later use in your own personal construct tables
EigenOperator (cross Pollinating Operator) advanced features as described above (eigenvector to follow)
Database (Table) upload and eigenvector computations
EigenSearch seeks 300,000 beta testers for its advanced eigenOperator based cognitive engine. This engine will allow for a multiplicity of search parameters for users to select so as to mathematically narrow results. The system will employ eigenVectors, eigenValues and eigenMatrices to determine relevance to user searches; thereby rendering high fidelity confirmed search results.
Naturally the computational power for doing such math is why beta testers are required. Each tester is welcome to comment on user friendliness, speed, change and ergonomic elegance. It is an eigenSearch goal to continue advancing the user interface so as to remain intuitively simple to use while at the same time providing hi-fidelity explorations. All beta testers will receive a login and password, which provides entry into features for saving search constructs and parameters according to their own classification approach. Saved results and parameters can be used at any time and modified to alter search results. Beta users will be able to import their own data sets (2-dimentional) and perform an eigenValue analysis.

<r<p_

# 2337. Re: 6 mtr antenna help

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-16 22:18:26 UTC
From: Bob Miller <rmiller47@satx.rr.com>
Message-ID: <upukp09u7ahhvf9ttba26uususu1aebgrh@4ax.com>
Source record: 86533

On Tue, 16 Nov 2004 18:44:38 +0000, tonester
<tonester1@cbuk.freeserve.co.uk> wrote:

>Looking to build a decent 6 mtr antenna ... probably a loop...
>
>space no problem indoor out out...
>
>want to hit local repeater 50 miles away...

Depends on how high the repeater antenna is and how much power you're
running -- to hit a repeater at that distance your best bet is
probably a small beam, regardless of polarization issues.

A beam would also be your best bet for general 6 meter work.

Six meter beams aren't all that expensive -- if you really want to
homebrew one, do a google search.

bob
k5qwg

>
>Have you had experience and can you recommend a good one..!!!
>THX in advance
>
>Tony

# 2338. New Program - Coaxial Choke

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-16 22:57:03 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cne0jv$2iv$1@hercules.btinternet.com>
Source record: 86534

```
New program SELFRES2.exe
-------------------------------------
Input data :

Length and diameter of solenoid.
Number of turns.
Conductor diameter
Length of line in which the coil is inserted.
Testing frequency.

Output data :

Coil self-capacitance.
Coil self-resonant frequency.
Choke impedance vs frequency.
Insertion loss of choke in dB.

Performance is based on a choke wound with coaxial cable of the same type as
the transmission transmission line in which it is inserted. Conductor
diameter is that of the coax outer. It behaves a single wire. Coax inner
diameter is of no consequence.

Choke insertion loss is a measure of the reduction in power radiated from
the feedline. But, despite the attention it attracts, actual power radiated
from the feedline WITH the choke will never be known because the power
radiated WITHOUT the choke is indeterminate.

SELFRES2 is 51 K-bytes. Download from website below in a few seconds. It is
not zipped-up and will run immediately.
----
.........................................................
Regards from Reg, G4FGQ
For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp
.........................................................
```

# 2339. Re: DOUBLE RESONANCE IN DIPOLE...THE CAUSE?????

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-16 23:08:03 UTC
From: radio913@aol.com
Message-ID: <1d15af91.0411161508.73fe3dd7@posting.google.com>
Source record: 86535

"Tam/WB2TT" <t-tammaru@c0mca$t.net> wrote in message
news:<8qOdnZqnzvKi1ATcRVn-sQ@comcast.com>...
> >
> > MFJ-259. Home-made dipole using aluminum tubing.
> >
> > There are only so many physical parameters of a
> > dipole, folks! Just list them and you should hit it!
> >
> >
> > Slick
>
> Having no adjustments, and presumably no 62 Ohm coax, you must have bent it
> into a V to get 50 Ohms. If you put a parasitic element on it, it is not a
> dipole.
>

I didn't have to do that. It's a straight regular dipole.

No parasitic either.

s.

# 2340. Re: 6 mtr antenna help

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-16 23:16:31 UTC
From: Keyboard In The Wilderness <Key@Kennel.net>
Message-ID: <jTvmd.145327$hj.28281@fed1read07>
Source record: 86536

Someone wrote
>"your best bet is
> probably a small beam, regardless of polarization issues.

However, a yagi can be rotated 90 deg to have vertical polarization thereby
avoiding the cross polarization attenuation which can be significant. Just
be careful of interaction between the yagi elements and the mast.
AND
A quad can be fed to have vertical polarization

--
The Anon Keyboard
I doubt, therefore I might be

"Bob Miller" <rmiller47@satx.rr.com> wrote in message
news:upukp09u7ahhvf9ttba26uususu1aebgrh@4ax.com...
> On Tue, 16 Nov 2004 18:44:38 +0000, tonester
> <tonester1@cbuk.freeserve.co.uk> wrote:
>
>>Looking to build a decent 6 mtr antenna ... probably a loop...
>>
>>space no problem indoor out out...
>>
>>want to hit local repeater 50 miles away...
>
> Depends on how high the repeater antenna is and how much power you're
> running -- to hit a repeater at that distance your best bet is
> probably a small beam, regardless of polarization issues.
>
> A beam would also be your best bet for general 6 meter work.
>
> Six meter beams aren't all that expensive -- if you really want to
> homebrew one, do a google search.
>
> bob
> k5qwg
>
>
>>
>>Have you had experience and can you recommend a good one..!!!
>>THX in advance
>>
>>Tony
>

# 2341. Re: 6 mtr antenna help( Antenna Cross Polarization)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-16 23:40:38 UTC
From: Keyboard In The Wilderness <Key@Kennel.net>
Message-ID: <Wdwmd.145329$hj.99955@fed1read07>
Source record: 86537

From URL:
http://www.astronantennas.com/polarization.html

On line-of-sight (LOS) paths, it is most important that the polarization of the antennas at both ends of the path use the same polarization. In a linearly polarized system, a misalignment of polarization of 45 degrees will degrade the signal up to 3 dB and if misaligned 90 degrees the attenuation can be 20 dB or more.

--
The Anon Keyboard
I doubt, therefore I might be

> Someone wrote
>>"your best bet is
>> probably a small beam, regardless of polarization issues.
>
>
"Keyboard In The Wilderness" <Key@Kennel.net> wrote in message
news:jTvmd.145327$hj.28281@fed1read07...
Replied
> However, a yagi can be rotated 90 deg to have vertical polarization
> thereby avoiding the cross polarization attenuation which can be
> significant. Just be careful of interaction between the yagi elements and
> the mast.
> AND
> A quad can be fed to have vertical polarization
>
> --
> The Anon Keyboard
> I doubt, therefore I might be
>
>
>
> "Bob Miller" <rmiller47@satx.rr.com> wrote in message
> news:upukp09u7ahhvf9ttba26uususu1aebgrh@4ax.com...
>> On Tue, 16 Nov 2004 18:44:38 +0000, tonester
>> <tonester1@cbuk.freeserve.co.uk> wrote:
>>
>>>Looking to build a decent 6 mtr antenna ... probably a loop...
>>>
>>>space no problem indoor out out...
>>>
>>>want to hit local repeater 50 miles away...
>>

>> Depends on how high the repeater antenna is and how much power you're
>> running -- to hit a repeater at that distance your best bet is
>> probably a small beam, regardless of polarization issues.
>>
>> A beam would also be your best bet for general 6 meter work.
>>
>> Six meter beams aren't all that expensive -- if you really want to
>> homebrew one, do a google search.
>>
>> bob
>> k5qwg
>>
>>
>>>
>>>Have you had experience and can you recommend a good one..!!!
>>>THX in advance
>>>
>>>Tony
>>
>
>

# 2342. Re: 6 mtr antenna help

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-17 00:15:54 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cne57q$btt$1@titan.btinternet.com>
Source record: 86538

Difficult to answer your question until you say what Tx power you intend to use and the sort of obstructions along the radio path.

==========

> want to hit local repeater 50 miles away...

# 2343. Re: 6 mtr antenna help

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-17 02:07:47 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cnebpj$n8i$1@sparta.btinternet.com>
Source record: 86540

> Looking to build a decent 6 mtr antenna ... probably a loop...
>
> space no problem indoor out out...
>
> want to hit local repeater 50 miles away...
>
==========

The line-of-sight performance on a 50 mile path, at 50 MHz, with a Tx power of 50 watts and similarly polarised half-wave dipoles, is approx as follows -

Tx to Rx transmission loss = 100 dB.
50-ohm Rx input volts = 500 micro-volts.
Equivalent to S9 + 20 dB.

Which is a very loud signal level.

However, due to Earth curvature, at 50 MHz the radio horizon at ground level is only about 14 miles. And as Richard says, at least one of the Tx and Rx antennas must be elevated to more than 1250 feet above the other to achieve a line-of-sight condition without any high ground obstructions in between.

Attenuation beyond the horizon increases rapidly due to diffraction. But you might just about make it with 50 watts and a 3-element vertical antenna. (A dipole with 1 reflector + 1 director.) (Or a dipole + 2 directors.) (Or you could try just 1 director.) Expect some fading depending on weather conditions.

On the other hand, if you were lucky when you chose your QTH, you may come booming through. Enjoy yourself experimenting with a vertical antenna as high as possible above the roof tops.
----
Reg, G4FGQ

# 2344. Re: Champagne on Top of 100" Tower

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-17 02:14:46 UTC
From: derswede@aol.comspam.com
Message-ID: <20041116211446.10458.00000360@mb-m25.aol.com>
Source record: 86541

>What to do when the propagation is not in your favor:<

Heh...when I was a kid, my father got 100' of tower from a local radio station...I dug the hole (6' deep 4' wide...such fun) and we mounted the guyed tower on it. As I was the only one who could handle "altitude w/o airspeed" I got to mount the rotor, mast and antennas. Was sitting on top of the tower (after drilling the mounting holes for the homebrew thrust bearing) in easy sight of the local highway, when I heard the screech of tires. A local truck driver saw me on the tower and thought I was going to jump! He apparently called a couple of buddies on his CB as two other trucks showed up a few minutes later. Guess they were disappointed when I pulled the 21' mast up and started installing it.....

Darn, wish I had A) a similar tower and B) a place to put it!! My XYL would have a fit, but what a signal~~~

A

# 2345. Re: DOUBLE RESONANCE IN DIPOLE...THE CAUSE?????

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-17 03:02:43 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cnef0j$moq$1@hercules.btinternet.com>
Source record: 86542

> > Having no adjustments, and presumably no 62 Ohm coax, you must have bent it > > into a V to get 50 Ohms.

==========

Having no record of who said what, or what the discussion was about, someone may be interested in little program INV_VEE which, amongst other things, demonstrates how the feedpoint impedance of an inverted-V dipole varies with the enclosed angle from 0 to 180 degrees for any height above ground.

Download INV_VEE from website below.
----
.....
Regards from Reg, G4FGQ
For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp
.....

# 2346. Re: 57186 Mining the Web: Advanced eigenVector Search Method with kriging and cross-Pollination: http://www.eigensearch.com 57186

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-17 03:06:29 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cnef7l$rj9$1@sparta.btinternet.com>
Source record: 86543

Now pull the other leg - it's got bells on it.

# 2347. Re: 6 mtr antenna help

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-17 03:23:02 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <rtzmd.33828$IQ.10602@bignews6.bellsouth.net>
Source record: 86544

Your main aim with this antenna - is to get it as HIGH as you can and use
good feedline
Use a 5/8-wave vertical - or a quad (side fed)

"tonester" <tonester1@cbuk.freeserve.co.uk> wrote in message
news:cndhqp$3cj$1@newsg1.svr.pol.co.uk...
> Looking to build a decent 6 mtr antenna ... probably a loop...
>
> space no problem indoor out out...
>
> want to hit local repeater 50 miles away...
>
> Have you had experience and can you recommend a good one..!!!
> THX in advance
>
> Tony

---
Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.788 / Virus Database: 533 - Release Date: 11/1/2004

# 2348. Re: 6 mtr antenna help

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-17 03:30:43 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <EAzmd.33831$IQ.33191@bignews6.bellsouth.net>
Source record: 86545

```
>
> Depends on how high the repeater antenna is and how much power you're
> running -- to hit a repeater at that distance your best bet is
> probably a small beam, regardless of polarization issues.
>
*********
The main thing with the antenna is being able the "hear" the repeater, so as
long as his power equals or exceeds the repeater's power, if he can hear it,
he can use it.
**********

> A beam would also be your best bet for general 6 meter work.
>
******
amen
******
> Six meter beams aren't all that expensive -- if you really want to
> homebrew one, do a google search.
>
*****
Its more fun to build it yourself
*********

---
Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.788 / Virus Database: 533 - Release Date: 11/1/2004
```

# 2349. Re: Homebrew high gain FM broadcast antenna ??

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-17 03:59:17 UTC
From: Tom Ring <news0000@taring.org>
Message-ID: <419acc96$0$91010$39cecf19@news.twtelecom.net>
Source record: 86546

K7MEM wrote:

> A 15 foot long boom would support 1 Reflector, 1 Driven Element, and 5
> Director elements. This would give you a estimated gain of almost 10 dBd.
> Normally the bandwidth of these antennas is about 7% at the design
> frequency.
> For your use this would be about 6.5 MHz. If you are only interested in a
> small portion of the band, this will work fine.
>
<SNIP>
> Optimization is nice to do if you have the equipment, but with careful
> construction, you should be able to build a antenna that is very close to
> the intended specifications and not require any tedious tweaking.
>
> For other antenna designs you might try Ian White's (G3SEK) web site at:
>
> http://www.ifwtech.co.uk/g3sek/diy-yagi
>
> If your intent is to cover the entire FM band, you may want to look for
> information on Log-Periodic antennas. Gain will not be big, but the
> bandwidth will be.
>

There is a 10 foot boom KLM driven element style yagi in the YO yagi
collection supplied with the program that is 75 ohms and claims 20%
bandwidth. I'm sure there are several here that could supply that
design, or run it again with more boom and elements. Or possibly
someone could run it under AO with more than 3 optimization frequencies,
which may be more desirable yet.

tom
K0TAR

## 2350. HF antenna for boat portable?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-17 04:35:36 UTC
From: David Snyder Hale <david@isi.mtwilson.edu.REMOVE>
Message-ID: <cnekeo$2ivb$1@agate.berkeley.edu>
Source record: 86547

hi,

I am taking a trip on a dive boat to Cocos Island off of Costa Rica.
I'm thinking about trying to bring an HF rig. What suggestions have
you for an antenna? It would have to fit into a reasonably "standard"
suitcase, or go as carry-on luggage, since packing space is limited.

--
Dave * N3WTK (DM04xf) * http://isi.mtwilson.edu * n3wtk@arrl.net.REMOVE

# 2351. Re: HF antenna for boat portable?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-17 04:40:02 UTC
From: David Snyder Hale <david@isi.mtwilson.edu.REMOVE>
Message-ID: <cnekn2$2ivb$2@agate.berkeley.edu>
Source record: 86548

I wanted to add that I will bring either my little homebrew QRP CW
(based on a Norcal 40), or use this as an excuse to buy an FT857.

73,

--
Dave * N3WTK (DM04xf) * http://isi.mtwilson.edu * n3wtk@arrl.net.REMOVE

# 2352. Re: New Program - Coaxial Choke

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-17 09:26:11 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <yeJX19GzkxmBFApp@ifwtech.co.uk>
Source record: 86549

Reg Edwards wrote:
>
>New program SELFRES2.exe
>-------------------------------------
>Input data :
>
>Length and diameter of solenoid.
>Number of turns.
>Conductor diameter
>Length of line in which the coil is inserted.
>Testing frequency.
>
>Output data :
>
>Coil self-capacitance.
>Coil self-resonant frequency.
>Choke impedance vs frequency.
>Insertion loss of choke in dB.
>

Reg, please could you make the terminating impedance a user variable too? (There's space for just one more parameter.) That would allow choke performance to be calculated for the standard test conditions of 50 ohms source and 50 ohms termination.

Real-life source and load impedances are, as you say, indeterminate (or largely so). However, there still needs to be a standard test environment for comparing published data for different chokes, and comparing predictions against measurements. 50-50 meets that need.

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

# 2353. Re: 6 mtr antenna help

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-17 11:58:38 UTC
From: Scott <acepilot@bloomer.net>
Message-ID: <xumdnRqvasxupgbcRVn-2g@bright.net>
Source record: 86550

Hey! When did they start sending ATV on 6M? I've been missing out!
Oh, I think you are referring to REPEATERS in general...that most, if
not all, repeaters run vertical polarization except ATV
repeaters...that's a true statement...

Scott

Dale Parfitt wrote:
> "tonester" <tonester1@cbuk.freeserve.co.uk> wrote in message
> news:cndhqp$3cj$1@newsg1.svr.pol.co.uk...
>
>>Looking to build a decent 6 mtr antenna ... probably a loop...
>>
>>space no problem indoor out out...
>>
>>want to hit local repeater 50 miles away...
>>
>>Have you had experience and can you recommend a good one..!!!
>>THX in advance
>>
>>Tony
>
>
> I don't think you want horizontal polarization for a repeater- everyone
> (except ATV) I am familiar with is vertically polarized.
>
> Dale W4OP
>
>

## 2354. Re: Is it worth it? Will I notice?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-17 14:08:13 UTC
From: Ken Bessler <kg0wx@NOSPAMyahoo.com>
Message-ID: <YWImd.1137$3I.571@okepread01>
Source record: 86551

"KF6HHS" <hrbcrb@aol.com.goaway> wrote in message
news:20041108163530.07145.00000268@mb-m10.aol.com...
> >150 mhz = 6.913 db improvement
>>450 mhz = 7.756 db improvement
>>Antenna tip 15 feet higher
>
>>Now here's my question - will I notice the improvement
>>enough? I've had several OM's tell me that on SSB, CW
>>or HF I would but not on 2m/440 simplex and repeaters.
>>
>>
>>Ken KG0WX
>
> Well, Ken maybe your "OM's" didn't eat their Wheaties. A 6dB improvement
> means
> you have quadrupled your ERP over your existing system. You have also
> increased the distance to your radio horizon with the increse in antenna
> height.
>
> Why they would say you won't notice an improvement is beyond me. In plane
> language here are a few things just a 6dB improvement mean. You can
> reduce
> your radios Tx power by a factor of 4 and have the equivalent ERP, 6dB
> doubles
> your range Tx and Rx (within the limits of your stations LOS - line of
> sight).
> Stations that were noisy will now be full quieting, be it simplex or
> repeaters
> you work.
>
> In even simpler terms, "night and day".
>
> What are you waiting for?
>
> Regards, Hugh KF6HHS
> Retired, now life moves at my pace.
> please note spam filter

Well, I did it. I changed plans at the last second, though,
going for the Hustler CG-144 monobander with radial kit.
Instead of paying $200 for the GP-9, I paid $27 and got
almost as much gain.

After figuring my old antenna's gain - coax - connectors, I
figured the new coax (Flexi 4XL) and antenna. The new

antenna is 5 feet higher and my system gained 3.940 db.

My S-meter on my 2 meter rig is stingy, esp. around S8
where it has an almost logritmic scale action. Still, several
repeaters went from S3 to S5 and several went from S7
to S9. One repeater remained S1 but it's noise factor went
from 50% quieting to 70% quieting.

Turns out it probably was a good decision - the Hustler
has 5.2 dbi gain and the tip is at 42'. I'm just stating to get
intermod at this level of performance (I live between a
hospital & Boeing). I'm convinced if I had gone with the
GP-9, I would have serious intermod problems (plus my
wallet would be $170 lighter) plus raising it would have
been MUCH harder.

Thanks to all who offered advice on this topic - You guys
rule!

73's de Ken KG0WX

# 2355. Re: HF antenna for boat portable?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-17 14:25:57 UTC
From: elj@jflight.elj.org
Message-ID: <slrncpmnnp.qnm.elj@jflight.elj.org>
Source record: 86552

On Wed, 17 Nov 2004 04:35:36 +0000 (UTC), David Snyder Hale
<david@isi.mtwilson.edu.REMOVE> wrote:

>I am taking a trip on a dive boat to Cocos Island off of Costa Rica.
>I'm thinking about trying to bring an HF rig. What suggestions have
>you for an antenna? It would have to fit into a reasonably "standard"
>suitcase, or go as carry-on luggage, since packing space is limited.

Take a look at the www.njqrp.org/pac-12 website. I built one of these and
have been very happy with it. The wire ground radials may prove to be a
problem, but the idea might be worth considering. I've used it while camping.

...Edwin

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
~ Edwin Johnson ..... elj@shreve.net ~
~ http://www.shreve.net/~elj ~
~ ~
~ "Once you have flown, you will walk the ~
~ earth with your eyes turned skyward, ~
~ for there you have been, there you long ~
~ to return." -- da Vinci ~
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

# 2356. Re: HF antenna for boat portable?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-17 14:44:52 UTC
From: richardharrison@webtv.net
Message-ID: <10978-419B63E4-8@storefull-3251.bay.webtv.net>
Source record: 86553

Dave, N3WTK wrote:
"What suggestions have you for an antenna?"

Avoid the sharks off Cocos Island.

From a boat at sea, you have a perfect earth connection available. Dunk an electrode and use it for HF. If the boat is metal, just make a ground connection outside to the hull. HF won`t penetrate the metal. Then use a vertical wire as an antenna. The sea short-circuits horizontal polarization. L-antennas are often used on boats. The horizontal portion is just capacitive loading for the real antenna which is the vertical portion. Loaded vertical whips are another type of common boat antenna.

Best regards, Richard Harrison, KB5WZI

# 2357. Re: HF antenna for boat portable?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-17 14:58:36 UTC
From: Bob Miller <rmiller47@satx.rr.com>
Message-ID: <mjpmp0po6ja1cd47kag93al45hubvp8hsm@4ax.com>
Source record: 86554

On Wed, 17 Nov 2004 04:35:36 +0000 (UTC), David Snyder Hale
<david@isi.mtwilson.edu.REMOVE> wrote:

>hi,
>
>I am taking a trip on a dive boat to Cocos Island off of Costa Rica.
>I'm thinking about trying to bring an HF rig. What suggestions have
>you for an antenna? It would have to fit into a reasonably "standard"
>suitcase, or go as carry-on luggage, since packing space is limited.

dunno how big your boat is, but possibly a "tape-measure" dipole:

http://www.gotenna.com/

bob
k5qwg

# 2358. Re: 6 mtr antenna help

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-17 15:24:27 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <-ZCdnbNISNVj8QbcRVn-qg@comcast.com>
Source record: 86555

"tonester" <tonester1@cbuk.freeserve.co.uk> wrote in message
news:cndhqp$3cj$1@newsg1.svr.pol.co.uk...
> Looking to build a decent 6 mtr antenna ... probably a loop...
>
> space no problem indoor out out...
>
> want to hit local repeater 50 miles away...
>
> Have you had experience and can you recommend a good one..!!!
> THX in advance
>
> Tony

Tony,

Not too many people use 6m FM, but on SSB, If both ends are running 50W to a 6 element beam at 50 feet, the probability of being able to work out to 100 miles is essentially 100%.

Tam/WB2TT

# 2359. Re: 6 mtr antenna help

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-17 16:34:45 UTC
From: Keyboard In The Wilderness <Key@Kennel.net>
Message-ID: <G4Lmd.145403$hj.34869@fed1read07>
Source record: 86556

Golly there are over 200 6M repeaters in California -- all using FM
URL:
http://www.we6r.com/

And the original question was:
Looking to build a decent 6 mtr antenna ... probably a loop...
space no problem indoor out out...
want to hit local repeater 50 miles away...
Have you had experience and can you recommend a good one..!!!
THX in advanceTony
---

The Anon Keyboard
I doubt, therefore I might be

"Tam/WB2TT" <t-tammaru@c0mca$t.net> wrote in message
news:-ZCdnbNISNVj8QbcRVn-qg@comcast.com...
>
>
> Tony,
>
> Not too many people use 6m FM, but on SSB, If both ends are running 50W to
> a 6 element beam at 50 feet, the probability of being able to work out to
> 100 miles is essentially 100%.
>
> Tam/WB2TT
>

# 2360. Re: HF antenna for boat portable?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-17 17:02:46 UTC
From: richardharrison@webtv.net
Message-ID: <11999-419B8436-22@storefull-3255.bay.webtv.net>
Source record: 86557

Bob, K5QWG wrote:
"dunno know how big your boat is, but possibly a "tape-measure" dipole:"

A Go-Tenna is collapsible for easy packing, but twice as long as an equivalent monopole, used against the sea, a near perfect ground.

A Go-Tenna can be deployed as a vertical and so could be effective at sea but requires twice the altitude of an equivalent monopole.

Horizontal deployment requires an elevation of a couple of wavelengths at sea to be very effective. That`s usually excessive.

Recall that the ground wave is vertically polarized. There is no horizontally polarized wave propagation over the sea.

Terman says on page 808 of his 1955 edition:
"Examination of these vector diagrams show that with s perfect reflectoe the horizontal components of the electric field will exactly cancel each other at the surface of the perfect reflector. In contrast the vertical components of the electric field of the incident and reflected waves do not cancel, but rather add at the reflector surface with small values of Psi 2 (the vertical takeoff angle from the surface)."

Best regards, Richard Harrison, KB5WZI

## 2361. 2mt Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-17 17:33:05 UTC
From: John Hurkett <j.hurkett@btinternet.com>
Message-ID: <cng20g$odn$1@sparta.btinternet.com>
Source record: 86558

I am soon to take a foundation license and would like to work 2meters. I am restricted by local regulations with regard to Antenna height. What would be the minimum height that I could use ?
Any help advice appreciated
J.

# 2362. Re: 6 mtr antenna help

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-17 17:37:42 UTC
From: Dennis Kaylor <k4oxg@tampabay.rr.com>
Message-ID: <G%Lmd.4763$Oc.3899@tornado.tampabay.rr.com>
Source record: 86563

i would suggest to build a Jpole for 6 meters FM work at about 40 feet
would do nicely
www.ac6v.com should hav e plans for a jpole
if not do a google search for a jpole

tonester wrote:
> Looking to build a decent 6 mtr antenna ... probably a loop...
>
> space no problem indoor out out...
>
> want to hit local repeater 50 miles away...
>
> Have you had experience and can you recommend a good one..!!!
> THX in advance
>
> Tony

## 2363. test

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-17 17:37:56 UTC
From: John Hurkett <j.hurkett@btinternet.com>
Message-ID: <cng29k$jr6$1@hercules.btinternet.com>
Source record: 86559

ret

## 2364. test2

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-17 17:41:23 UTC
From: John Hurkett <j.hurkett@btinternet.com>
Message-ID: <cng2g2$k58$1@hercules.btinternet.com>
Source record: 86560

ret

## 2365. Test3

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-17 17:45:14 UTC
From: John Hurkett <j.hurkett@btinternet.com>
Message-ID: <cng2na$oj2$1@titan.btinternet.com>
Source record: 86561

ret

# 2366. test

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-17 17:51:34 UTC
From: John Hurkett <j.hurkett@btinternet.com>
Message-ID: <cng336$q70$1@sparta.btinternet.com>
Source record: 86562

```
test 999
```

# 2367. Need help identifying an antenna connector

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-17 18:01:09 UTC
From: googlegroups@kd7ump.ftml.net
Message-ID: <ad434b7d.0411171001.362bfa5@posting.google.com>
Source record: 86564

I apologize if this post is slightly off-topic for this group, but I'm pretty sure you're the right crowd for the question...

I'm trying to connect a Yagi antenna to an old 915MHz WaveLAN wireless access point (circa 1997). I have searched high and low, but cannot figure out what type of connector I need. Since a picture is worth a thousand words, I've taken the liberty of providing some visual aid! Here is a picture of the mystery connector I'm hoping to identify:

http://kd7ump.ftml.net/WaveLANAntennaConnector.jpg

Now, this looks suspiciously like an SMB connector. Alas, it is not. I had a custom pigtail cable made (for $38!) using an SMB connector and it is not a match. Here is a picture of the mystery connector and the SMB connector side-by-side:

http://kd7ump.ftml.net/WaveLAN-SMB.jpg

Close, but no go :( If anyone has an idea what this might be (or has some other clever idea on how to get from the access point to a RP-TNC connector) please, please let me know! And if you can cc: me via email as well, that'd be swell - I don't want to miss your response.

73 - KD7UMP

# 2368. Re: 6 mtr antenna help

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-17 18:22:41 UTC
From: Dale Parfitt <par@parelectronics.com>
Message-ID: <RFMmd.13730$d96.1447@trnddc01>
Source record: 86565

> Not too many people use 6m FM, but on SSB, If both ends are running 50W
to a
> 6 element beam at 50 feet, the probability of being able to work out to
100
> miles is essentially 100%.
>
> Tam/WB2TT
>
> Is that a shorter call Tam?

Dale W4OP

# 2369. Re: 6 mtr antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-17 18:38:47 UTC
From: tonester <tonester1@cbuk.freeserve.co.uk>
Message-ID: <cng5rh$fgv$1@newsg4.svr.pol.co.uk>
Source record: 86566

http://www.gb3fh.org.uk/

this is the repeater guys...

its not so far away but I was hopeing to get a few more on 6....
there are,n many over here but Europe would hopefully pop up some times
with propagation....

I can only run 10 watts as I am an M3.....

So thats why I thought about a loop for some gain...

like the look on a "cactus" too....

I can get in to the repeater now with a long wire and tuner but wanted a
dedicated antenna for the chance of DX and other repeaters should a lift
rise...

Thanks for the great replies and good luck.....

# 2370. Re: 6 mtr antenna help

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-17 18:50:59 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <zM6dnYwdmYP7AAbcRVn-hQ@comcast.com>
Source record: 86567

"Keyboard In The Wilderness" <Key@Kennel.net> wrote in message
news:G4Lmd.145403$hj.34869@fed1read07...
> Golly there are over 200 6M repeaters in California -- all using FM
> URL:
> http://www.we6r.com/
>
> And the original question was:
> Looking to build a decent 6 mtr antenna ... probably a loop...
> space no problem indoor out out...
> want to hit local repeater 50 miles away...
> Have you had experience and can you recommend a good one..!!!
> THX in advanceTony
> ---------------------
>
> The Anon Keyboard
> I doubt, therefore I might be
>
>
>
> "Tam/WB2TT" <t-tammaru@c0mca$t.net> wrote in message
> news:-ZCdnbNISNVj8QbcRVn-qg@comcast.com...
>>
>>
>> Tony,
>>
>> Not too many people use 6m FM, but on SSB, If both ends are running 50W
>> to a 6 element beam at 50 feet, the probability of being able to work out
>> to 100 miles is essentially 100%.
>>
>> Tam/WB2TT
>>
>
>
This is channel 2 land. Essentially no 6 m FM. Why don't you try a simple
vertical first, and figure out how much more gain you are going to need, if
any. I just mentioned the SSB figures to show that you don't need to have
your antenna at 1000 feet.

Tam/WB2TT

# 2371. Re: 6 mtr antenna help

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-17 18:52:34 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <ntednQqcjoNYAAbcRVn-jQ@comcast.com>
Source record: 86568

"Dale Parfitt" <par@parelectronics.com> wrote in message
news:RFMmd.13730$d96.1447@trnddc01...
> > Not too many people use 6m FM, but on SSB, If both ends are running 50W
> to a
>> 6 element beam at 50 feet, the probability of being able to work out to
> 100
>> miles is essentially 100%.
>>
>> Tam/WB2TT
>>
>> Is that a shorter call Tam?
>
> Dale W4OP
>
>
Dale,
Not sure I understand the question, but its a vanity call.

Tam/WB2TT

# 2372. Antenna Length for Two Metres

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-17 19:02:16 UTC
From: Simon Smith <s.Smith@btinternet.com>
Message-ID: <cng77o$r01$1@hercules.btinternet.com>
Source record: 86569

I am soon to take a foundation license and would like to work 2meters. I am restricted by local regulations with regard to Antenna height. What would be the minimum height that I could use ?
Any help advice appreciated
Simon.

## 2373. Re: test

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-17 19:06:32 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <419b9f3c$1_2@127.0.0.1>
Source record: 86570

John Hurkett wrote:
> test 999

I believe there is a newsgroup, alt.test, reserved for this
kind of testing.
--
73, Cecil, W5DXP

# 2374. Re: 6 mtr antenna help

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-17 19:20:58 UTC
From: Keyboard In The Wilderness <Key@Kennel.net>
Message-ID: <uwNmd.145872$hj.114111@fed1read07>
Source record: 86571

Tam if you are New Jersey -- there are about thirty 6M repeaters in NJ to
say nothing of 6M repeaters in adjacent states

See URL:
http://www.artscipub.com/repeaters/states/New-Jersey.asp

Be sure to see all 10 pages

And my area is channel 2 land as well --- if you mean TV channel 2, and I
have no problem with TVI

And after all these posts on "6M antenna help" I believe the original
poster is in the UK and is limited to 10 watts as Tony is an M3 class
license !!!!!

But was an interesting thread of posts
--
The Anon Keyboard
I doubt, therefore I might be

"Tam/WB2TT" <t-tammaru@c0mca$t.net> wrote in message
news:zM6dnYwdmYP7AAbcRVn-hQ@comcast.com...
>
> "Keyboard In The Wilderness" <Key@Kennel.net> wrote in message
> news:G4Lmd.145403$hj.34869@fed1read07...
>> Golly there are over 200 6M repeaters in California -- all using FM
>> URL:
>> http://www.we6r.com/
>>
>> And the original question was:
>> Looking to build a decent 6 mtr antenna ... probably a loop...
>> space no problem indoor out out...
>> want to hit local repeater 50 miles away...
>> Have you had experience and can you recommend a good one..!!!
>> THX in advanceTony
>> ---------------------
>>
>> The Anon Keyboard
>> I doubt, therefore I might be
>>
>>
>>
>> "Tam/WB2TT" <t-tammaru@c0mca$t.net> wrote in message
>> news:-ZCdnbNISNVj8QbcRVn-qg@comcast.com...
>>>
>>>

>>> Tony,
>>>
>>> Not too many people use 6m FM, but on SSB, If both ends are running 50W
>>> to a 6 element beam at 50 feet, the probability of being able to work
>>> out to 100 miles is essentially 100%.
>>>
>>> Tam/WB2TT
>>>
>>
>>
> This is channel 2 land. Essentially no 6 m FM. Why don't you try a simple
> vertical first, and figure out how much more gain you are going to need,
> if any. I just mentioned the SSB figures to show that you don't need to
> have your antenna at 1000 feet.
>
> Tam/WB2TT
>

# 2375. Re: Antenna Length for Two Metres

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-17 19:28:14 UTC
From: Keyboard In The Wilderness <Key@Kennel.net>
Message-ID: <iDNmd.145912$hj.138403@fed1read07>
Source record: 86472

Simon -- it depends on the antenna height of the other station

For 2M repeaters -- I work a repeater 20 miles away with an HT and rubber duck running 1 watt of power, BUT the repeater antenna is at 5600 feet on a mountain top !!!

For a rough guide of transmitter range and antenna heights see URL:
http://www.artscipub.com/simpleton/simp.range.html

--
The Anon Keyboard
I doubt, therefore I might be

"Simon Smith" <s.Smith@btinternet.com> wrote in message
news:cng77o$r01$1@hercules.btinternet.com...
>I am soon to take a foundation license and would like to work 2meters. I am
> restricted by local regulations with regard to Antenna height. What would
> be
> the minimum height that I could use ?
> Any help advice appreciated
> Simon.
>
>

# 2376. Colinear 2 meter antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-17 19:40:30 UTC
From: Ken Bessler <kg0wx@NOSPAMyahoo.com>
Message-ID: <lONmd.1172$3I.850@okepread01>
Source record: 86473

I'm using the Hustler CG-144 colinear antenna
with the radial kit. The antenna is 42' above
ground and fed with 35' of Flexi 4XL coax.

This antenna is apparantly a 1/4 wave phased into
a 5/8 wave and is working well.

My question is what impedance (SWR) would
this antenna sho on 446 mhz? I don't have a 440
mobile but I do have a VX-2R HT and I hooked
it up on 440 to this antenna and it seemed to
perform well.

Ken KG0WX

# 2377. Re: Need help identifying an antenna connector

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-17 20:05:53 UTC
From: w9gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <BaOmd.623585$8_6.231@attbi_s04>
Source record: 86474

"Kevin Mills" <googlegroups@kd7ump.ftml.net> wrote in message
news:ad434b7d.0411171001.362bfa5@posting.google.com...
>I apologize if this post is slightly off-topic for this group, but I'm
> pretty sure you're the right crowd for the question...
>
> I'm trying to connect a Yagi antenna to an old 915MHz WaveLAN wireless
> access point (circa 1997). I have searched high and low, but cannot
> figure out what type of connector I need. Since a picture is worth a
> thousand words, I've taken the liberty of providing some visual aid!
> Here is a picture of the mystery connector I'm hoping to identify:
>
> http://kd7ump.ftml.net/WaveLANAntennaConnector.jpg
>
> Now, this looks suspiciously like an SMB connector. Alas, it is not.
> I had a custom pigtail cable made (for $38!) using an SMB connector
> and it is not a match. Here is a picture of the mystery connector and
> the SMB connector side-by-side:
>
> http://kd7ump.ftml.net/WaveLAN-SMB.jpg
>
> Close, but no go :( If anyone has an idea what this might be (or has
> some other clever idea on how to get from the access point to a RP-TNC
> connector) please, please let me know! And if you can cc: me via
> email as well, that'd be swell - I don't want to miss your response.
>
> 73 - KD7UMP

Send an e-mail with photos to Cable Xperts. they did have the pigtails for
all major wireless hubs on market (at one point)
http://www.cablexperts.com/

Greg

# 2378. Re: 2mt Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-17 20:05:54 UTC
From: Bob Bob <bcnntp@optusnet.com.au>
Message-ID: <3ins62-ep5.ln1@p400bob.lse.com.au>
Source record: 86476

Hi John

Thats a very open ended question!

You can use a 2M antenna half a metre off the ground. It wont however be very effective in distance covered!

My view would be to mount an antenna at the maximum permissible height and ensure that the coax run used was low enough loss. What I am getting at here is dont run more than (say) 5 metres of RG58. Use something lower loss like RG213. (I cant really be specific)

All this of course depends on what you are trying to achieve. If you want to use only a few local repeaters it may be possible to get away with a low mounted antenna. If however you want long distance simplex contacts, height is important. If you want to input to FM satellites, height isnt such a problem as antenna type is (it needs to radiate upwards to some degree)

What are your interests and what type of antenna are you going to use?

Cheers Bob VK2YQA

John Hurkett wrote:
> I am soon to take a foundation license and would like to work 2meters. I am
> restricted by local regulations with regard to Antenna height. What would be
> the minimum height that I could use ?
> Any help advice appreciated
> J.
>
>

# 2379. Re: 2mt Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-17 20:39:23 UTC
From: richardharrison@webtv.net
Message-ID: <27631-419BB6FB-37@storefull-3253.bay.webtv.net>
Source record: 86475

John Hurkett wrote:
"What would be the minimum height that I could use?"

Distance to your radio horizon in miles equals the square root of twice the antenna height in feet.

Suppose your antenna is up 50 feet. The square root of 100 is 10 miles.

Between two antennas at 50 feet each, the line of sight path length is 20 miles over smooth earth.

An antenna disguised as a flagpole can actually be a coaxial antenna.

Best regards, Richard Harrison, KB5WZI

# 2380. Re: test

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-17 21:24:28 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cngfic$e26$1@titan.btinternet.com>
Source record: 86477

"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:419b9f3c$1_2@127.0.0.1...
> John Hurkett wrote:
> > test 999
>
> I believe there is a newsgroup, alt.test, reserved for this
> kind of testing.
> --
> 73, Cecil, W5DXP

==========

It's probably conjested with Bush, Blair, missing WMD and 100, 000
civilians.
----
Reg

# 2381. Re: Colinear 2 meter antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-17 21:31:17 UTC
From: richardharrison@webtv.net
Message-ID: <27630-419BC325-109@storefull-3253.bay.webtv.net>
Source record: 86478

Ken Bessler wrote:
"My question is what impedance (SWR) would this antenna show on 446 MHz?"

An antenna operating on its 3rd harmonic may be roughly a 1/4-wave connected to the drivepoint through an additional 1/2-wavelength of antenna.

The 1/2-wave portion repeats the impedance it "sees" at its ends, therefore the drivepoint "sees"the same impedance that the length in excess of 1/2-wavelength presents. If this is a good match to the drivepoint, as it well may be, you will have a low SWR.

Best regards, Richard Harrison, KB5WZI

# 2382. Re: Colinear 2 meter antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-17 22:09:50 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <419bca32$1_3@127.0.0.1>
Source record: 86479

Ken Bessler wrote:
> I'm using the Hustler CG-144 colinear antenna
> with the radial kit. The antenna is 42' above
> ground and fed with 35' of Flexi 4XL coax.
>
> This antenna is apparantly a 1/4 wave phased into
> a 5/8 wave and is working well.
>
> My question is what impedance (SWR) would
> this antenna sho on 446 mhz? I don't have a 440
> mobile but I do have a VX-2R HT and I hooked
> it up on 440 to this antenna and it seemed to
> perform well.

446/3 = 148.7 so a 2m antenna will often resonate on 440 MHz.
The trouble usually is a high radiation angle on 3x the
fundamental frequency for ordinary verticals. How the above
antenna would radiate on 446 MHz is an educated guess. My
guess is at a very high radiation angle. But if it hits the
repeater you want to hit, it's "working".
--
73, Cecil, W5DXP

# 2383. Re: New Program - Coaxial Choke

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-17 22:24:29 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cngj2t$jfc$1@sparta.btinternet.com>
Source record: 86480

"Ian White, G3SEK" wrote
>
> Reg, please could you make the terminating impedance a user variable
> too? (There's space for just one more parameter.) That would allow choke
> performance to be calculated for the standard test conditions of 50 ohms
> source and 50 ohms termination.
>
> Real-life source and load impedances are, as you say, indeterminate (or
> largely so). However, there still needs to be a standard test
> environment for comparing published data for different chokes, and
> comparing predictions against measurements. 50-50 meets that need.
>
==========

Ian,

Done!

It took 7 hours including updating program notes, local records, website, making backups, notifying customers and writing this message. I spent an hour testing for and removing a dozen or so bugs inevitably introduced by modifications more involved than you perhaps realise. Normally this takes a week or two but its only a hank of cable and a residual bug won't amount to very much. ;o)

It added about 1.5 K-bytes to the source code. It has improved the screen's appearance. The extra facility will add to a user's interest in a choke's behaviour.

Thanks very much for your suggestion.

I changed the program's name. Download SELFRES3 now.
----
.....
Regards from Reg, G4FGQ
For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp
.....

# 2384. Re: New Program - Coaxial Choke

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-17 22:51:40 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <0jqGKpB8X9mBFALq@ifwtech.co.uk>
Source record: 86481

Reg Edwards wrote:
>Ian,
>
>Done!
>
>It took 7 hours including updating program notes, local records,
>website, making backups, notifying customers and writing this message.
>I spent an hour testing for and removing a dozen or so bugs inevitably
>introduced by modifications more involved than you perhaps realise.

I fully realise that any software modification will be more involved
than I realise.

>Normally this takes a week or two but its only a hank of cable and a
>residual bug won't amount to very much. ;o)
>
>It added about 1.5 K-bytes to the source code. It has improved the
>screen's appearance. The extra facility will add to a user's interest
>in a choke's behaviour.
>
>Thanks very much for your suggestion.
>

Thanks very much for making the staff work overtime!

>I changed the program's name. Download SELFRES3 now.

Done - it looks good. Thanks again, Reg.

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

# 2385. Re: New Program - Coaxial Choke

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-17 22:56:08 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cngku8$kh1$1@titan.btinternet.com>
Source record: 86482

On the suggestion of Ian White, G3SEK, program SELFRES2 has been modified by the addition of an extra operating facility.

The terminating impedance at the other end of the line from the coaxial choke, which was fixed at 20 ohms, can now be varied between 1ohm and 1000 ohms from the keyboard.

The name has been changed to SELFRES3 and is now available from website below. If you have already downloaded the earlier version which is no longer available, overwrite it with SELFRES3.
----
.....................................................
Regards from Reg, G4FGQ
For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp
.....................................................

# 2386. Re: Is it worth it? Will I notice?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-17 23:31:32 UTC
From: Ralph Mowery <rmowery28146@earthlink.net>
Message-ID: <obRmd.3447$pK6.268@newsread2.news.atl.earthlink.net>
Source record: 86483

> Well, I did it. I changed plans at the last second, though,
> going for the Hustler CG-144 monobander with radial kit.
> Instead of paying $200 for the GP-9, I paid $27 and got
> almost as much gain.
>
> After figuring my old antenna's gain - coax - connectors, I
> figured the new coax (Flexi 4XL) and antenna. The new
> antenna is 5 feet higher and my system gained 3.940 db.
>
> My S-meter on my 2 meter rig is stingy, esp. around S8
> where it has an almost logritmic scale action. Still, several
> repeaters went from S3 to S5 and several went from S7
> to S9. One repeater remained S1 but it's noise factor went
> from 50% quieting to 70% quieting.
>
> Turns out it probably was a good decision - the Hustler
> has 5.2 dbi gain and the tip is at 42'. I'm just stating to get
> intermod at this level of performance (I live between a
> hospital & Boeing). I'm convinced if I had gone with the
> GP-9, I would have serious intermod problems (plus my
> wallet would be $170 lighter) plus raising it would have
> been MUCH harder.

The worth it question seems to be that you spent $ 27 for a net gain to get one repeater to go from about 50% to 70 % quieting. The other repeaters were peobably full quieting so you would not gain anything on them even if you spent the full $ 200. Whe 'worth it " will come when you are making contacts that you did not make with what you already had.

# 2387. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!! _____==___ pemluzov

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-17 23:31:44 UTC
From: jonz <overhere@overthere.com>
Message-ID: <419bdfea@dnews.tpgi.com.au>
Source record: 86484
Cross-posted to: rec.pyrotechnics,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc

"Don T" <-painter-@louvre.org> wrote in message
news:c4yjd.8266$O11.2154@newsread3.news.pas.earthlink.net...
> HeH. America in deep depression. And all those "rednecks" with a garage
full
> of nukes ---- 2nd Amendment approved and sanctioned nukes no
s ----
> and pocket rockets. Not to mention plain old ordinary "assault weapons".
> Pissed off and armed to the teeth. And this limpdick, lowlife, pissant,
> trolling Usenet with his message of hate? I wager he is the first one into
> the hole. Trying to pull it in behind his sorry ass. Didn't he watch
> O'sammy-ben-laden on Teee Veee the other day? Whimpering his message to GW
> of "Please don't hurt me, I didn't -really- mean to knock the towers
down.
> I just wanted to fuck them up a little bit. I didn't know the USA still
had
> real teeth 'cause I was payin' attention to the limpdick left-liberal
peace
> freaks America's freedom of speech tolerates. Hell I thought America was
> just like Saudi Arabia, the Sudan, and Afghanistan where subversive speech
> gets your fucking head chopped off. I didn't realize that in America even

> stupid people who have never had an original thought in their life are
> allowed to speak as if they were the goddamn King of the World." Eh?
>
yup, you said it.....eh? thats what got the shrub back leading you dickheads
into your imperialistic romps around the globe....

> --
>
> Don Thompson
>
> Remmy sez,
> Count de Monet.
> Unless, of course, you are Baroque.
>
>
> "Piccolo Pete" <Sorry@SpamSucks.com> wrote in message
> news:4uudnVRbCZfmOxPcRVn-jg@adelphia.com...
> >
> >> On Sun, 7 Nov 2004 11:31:25 GMT,
Victim_of_American_Stupidity@gafbi.ut.us
> > wrote:
> >>

> >>You blithering idiots! You re-elected that imbecile George Bush as your
> > President.
> >>He's a complete moron and so are most of you!
> >
> > "Moron" vs. "Insane suicidal murderers" - not a good situation, I agree.
> > However, our only other option was a wimp.
> >
> >>Don't you care what the rest of the world thinks of you?
> >
> > Certainly I do. I want to be known as the country who helped to wipe
out
> > the insane suicidal murderers.
> >
> >>Don't you care what impact
> >>American foreign policy has on the rest of the planet?
> >
> > Well... yes I do. If we could meet with more cooperation, there would
be
> > much less destruction. This planet is running out of room for
dictators.
> > The destruction in Iraq is being caused by power hungry idiots who think
> > they can become the next dictator - not by the US. We are attempting to
> > stabilize the country. We have attempted to help rebuild the country
and
> > the insurgents have murdered the civilian contractors that were there to
> > aid
> > the Iraqi people.
> >
> >>Does Iraq look like a success
> >>to anyone?
> >
> > Iraq never looked like a success - even when Saddam was in full power.
> > Iraq
> > could have been a success - but it had a nutcase for a leader. Here you
> > are
> > in the middle of the "black gold" center of the world and most everyone
> > still rides camels. That is why this crap happened to it. I have a lot
> > of
> > hope for the Middle East. I suspect it will eventually rule the
planet -
> > but certainly not with its present attitude - and certainly not without
> > being united by a common vote of the people.
> >
> >>Doesn't it bother you that he's alienated every friend you have?
> >
> > Bush is my buddy. We have the right friends. It was your choice to
avoid
> > friendship.
> >
> >>Prior to this, it was American policy and the American government that

was
> > so universally
> >>hated around the world. Now it's going to be 'Americans' we hate.
> >
> > Hate breeds war and more destruction. When will the folks of your
> > persuasion realize that you need to stop hating? If you are an Iraqi -
> > you
> > should help us help you instead of fighting to support your hate. Look
at
> > Japan. A relatively small country that is a HUGE success. They smacked
> > us.
> > We had to smack them back. But we didn't leave them behind - and we
won't
> > leave Iraq behind. We all sincerely wish the fighting would stop, but
it
> > is
> > clear that Iraq would remain unstable as ever if we just left. There
are
> > still way too many "would-be" dictators and nutcases.
> >
> >>More sympathy
> >>for Bin Laden... More attacks on American institutions... More
isolation.
> > How blind
> >>can you dumb rednecks in middle-America be, not to see this?
> >
> > More sympathy for an insane murderer who stirred up a massive wasp nest
> > that
> > stung everyone on the planet - including you? And you call *us* stupid?
> > Bin Laden is the one who caused all of this! Bush HAD to make policies
to
> > stop this type of stuff. Your enemy *IS* Bin Laden and people like
him -
> > not the US. You can't see this?
> >
> >>If you get hit again, or your economy goes into a deep depression, the
> > American
> >>people will be getting exactly what they deserve!
> >
> > You don't want that to happen. Believe me. You think it's bad now? Do
> > what you can, on your side, to stop breeding hate - and the pyrotechnics
> > will stop.
> >
> >
>
>

# 2388. Re: Need help identifying an antenna connector

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-18 00:28:56 UTC
From: googlegroups@kd7ump.ftml.net
Message-ID: <1100737736.476934.227610@f14g2000cwb.googlegroups.com>
Source record: 86485

Hi, Greg.

Thanks for your reply. I did get a reply back from Cable Xperts who theorized that it might be a QMA connector. They don't carry QMA connectors anymore, but I found a picture of a QMA plug on Amphenol's site and it isn't the right one :(

Anyone else have an idea?

# 2389. Re: Need help identifying an antenna connector

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-18 00:41:37 UTC
From: googlegroups@kd7ump.ftml.net
Message-ID: <1100738497.093810.269000@c13g2000cwb.googlegroups.com>
Source record: 86486

Hi, Greg.

Thanks for your reply. I did get a reply back from Cable Xperts who theorized that it might be a QMA connector. They don't carry QMA connectors anymore, but I found a picture of a QMA plug on Amphenol's site and it isn't the right one :(

Anyone else have an idea?

## 2390. Re: HF antenna for boat portable?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-18 00:52:01 UTC
From: kelly@dvol.com
Message-ID: <d22b54c3.0411171652.53cea7d4@posting.google.com>
Source record: 86487

David Snyder Hale <david@isi.mtwilson.edu.REMOVE> wrote in message
news:<cnekn2$2ivb$2@agate.berkeley.edu>...
> I wanted to add that I will bring either my little homebrew QRP CW
> (based on a Norcal 40), or use this as an excuse to buy an FT857.

http://www.buddipole.com/

Pricey but worth it.

>
> 73,

w3rv

## 2391. Re: Is it worth it? Will I notice?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-18 02:15:53 UTC
From: Ken Bessler <kg0wx@NOSPAMyahoo.com>
Message-ID: <JATmd.1207$3I.649@okepread01>
Source record: 86488

"Ralph Mowery" <rmowery28146@earthlink.net> wrote in message
news:obRmd.3447$pK6.268@newsread2.news.atl.earthlink.net...

>
> The worth it question seems to be that you spent $ 27 for a net gain to
> get
> one repeater to go from about 50% to 70 % quieting. The other repeaters
> were peobably full quieting so you would not gain anything on them even
> if
> you spent the full $ 200. Whe 'worth it " will come when you are making
> contacts that you did not make with what you already had.
>

Well, N0IDW can hear me on simplex at 40 miles away now
where he only heard silence before. The real performance factor
will kick in during the next band opening.

Also, a fringe repeater is now within range (60 miles away) and I
can use it's signal to check for band openings.

Ken KG0WX

# 2392. Re: New Program - Coaxial Choke

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-18 02:18:54 UTC
From: Tom Ring <news0000@taring.org>
Message-ID: <419c068e$0$74193$39cecf19@news.twtelecom.net>
Source record: 86489

Reg Edwards wrote:

> On the suggestion of Ian White, G3SEK, program SELFRES2 has been modified by
> the addition of an extra operating facility.
>
> The terminating impedance at the other end of the line from the coaxial
> choke, which was fixed at 20 ohms, can now be varied between 1ohm and 1000
> ohms from the keyboard.
>
> The name has been changed to SELFRES3 and is now available from website
> below. If you have already downloaded the earlier version which is no longer
> available, overwrite it with SELFRES3.
> ----
> ..........................................................
> Regards from Reg, G4FGQ
> For Free Radio Design Software go to
> http://www.btinternet.com/~g4fgq.regp
> ..........................................................
>
>

Thanks Reg. As a programmer of the older sort, I appreciate the effort.
Seems to operate well.

tom
K0TAR

# 2393. Re: Antenna Length for Two Metres

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-18 04:15:05 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <PiVmd.33062$z3.4005@bignews5.bellsouth.net>
Source record: 86490

"Simon Smith" <s.Smith@btinternet.com> wrote in message
news:cng77o$r01$1@hercules.btinternet.com...
> I am soon to take a foundation license and would like to work 2meters. I
am
> restricted by local regulations with regard to Antenna height. What would
be
> the minimum height that I could use ?
> Any help advice appreciated
> Simon.
>

Simon - it appears you may have antenna height and antenna length confused.
(your subject refers to length and your post refers to height)
Minimum height you can use is probably "ground level" - or - zero feet
in other words - as long as you can hear the other station - you can
probably talk to it.

---
Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.788 / Virus Database: 533 - Release Date: 11/1/2004

# 2394. Re: HF antenna for boat portable?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-18 04:40:51 UTC
From: Gary Schafer <gaschafer@comcast.net>
Message-ID: <kt9op0l2t8b9lt3q28bgrqqn3vgamtv330@4ax.com>
Source record: 86491

On Wed, 17 Nov 2004 11:02:46 -0600, richardharrison@webtv.net (Richard Harrison) wrote:

>Bob, K5QWG wrote:
>"dunno know how big your boat is, but possibly a "tape-measure" dipole:"
>
>A Go-Tenna is collapsible for easy packing, but twice as long as an
>equivalent monopole, used against the sea, a near perfect ground.
>
>A Go-Tenna can be deployed as a vertical and so could be effective at
>sea but requires twice the altitude of an equivalent monopole.
>
>Horizontal deployment requires an elevation of a couple of wavelengths
>at sea to be very effective. That`s usually excessive.
>
>Recall that the ground wave is vertically polarized. There is no
>horizontally polarized wave propagation over the sea.
>
>Terman says on page 808 of his 1955 edition:
>"Examination of these vector diagrams show that with s perfect reflectoe
>the horizontal components of the electric field will exactly cancel each
>other at the surface of the perfect reflector. In contrast the vertical
>components of the electric field of the incident and reflected waves do
>not cancel, but rather add at the reflector surface with small values of
>Psi 2 (the vertical takeoff angle from the surface)."
>
>Best regards, Richard Harrison, KB5WZI

Are you saying that my low (less than 1/2 wavelength high) horizontal antenna will be next to useless if I live on the sea shore? And that same antenna will perform much better if I live inland where soil conditions are poor?

73
Gary K4FMX

# 2395. Re: Need help identifying an antenna connector

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-18 04:50:10 UTC
From: Crazy George <muNnscOh@attSglPobaAl.nMet>
Message-ID: <419c2c92_1@news1.prserv.net>
Source record: 86492

Kevin:

It is an "inverted" SMB. The FCC mandated non-standard connectors on wireless stuff to prevent casual tinkerers from
sticking yagis on them. Thus came "inverted" BNC, TNC, SMA, SMB, and a bunch of others with a female center pin in a
male body and vice- versa. Try Pasternack.

--
Crazy George
Remove N O and S P A M imbedded in return address
"Kevin Mills" <googlegroups@kd7ump.ftml.net> wrote in message
news:ad434b7d.0411171001.362bfa5@posting.google.com...
> I apologize if this post is slightly off-topic for this group, but I'm
> pretty sure you're the right crowd for the question...
>
> I'm trying to connect a Yagi antenna to an old 915MHz WaveLAN wireless
> access point (circa 1997). I have searched high and low, but cannot
> figure out what type of connector I need. Since a picture is worth a
> thousand words, I've taken the liberty of providing some visual aid!
> Here is a picture of the mystery connector I'm hoping to identify:
>
> http://kd7ump.ftml.net/WaveLANAntennaConnector.jpg
>
> Now, this looks suspiciously like an SMB connector. Alas, it is not.
> I had a custom pigtail cable made (for $38!) using an SMB connector
> and it is not a match. Here is a picture of the mystery connector and
> the SMB connector side-by-side:
>
> http://kd7ump.ftml.net/WaveLAN-SMB.jpg
>
> Close, but no go :( If anyone has an idea what this might be (or has
> some other clever idea on how to get from the access point to a RP-TNC
> connector) please, please let me know! And if you can cc: me via
> email as well, that'd be swell - I don't want to miss your response.
>
> 73 - KD7UMP

# 2396. 5/8 over 5/8 over 5/8.. On 2m - Looking for ideas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-18 09:50:10 UTC
From: Bob Bob <bcnntp@optusnet.com.au>
Message-ID: <jr7u62-ti8.ln1@p400bob.lse.com.au>
Source record: 86493

Hi All

I will be moving to a house early next year that has 90ft trees scattered around the backyard. Rather than setup a tower (initially anyway) I am looking at hanging a wire (1/2" braid) 2 metre collinear for a rope between the trees and feeding it from the bottom end.

Firstly talking about phasing sections. Has anyone come accross the maths/size of using a single turn of stiff wire (looks like a ring match) to go between the elements? Was thinking a short length of PVC pipe with dowel or fibreglass spacers. How big?

What is the general figure of merit for shortening the topmost element by when joined to a (say) PVC insulator.

And feeding. Was thinking about the J pole type match - The two parallel wires 1/4 wavelenth long and a direct coax feed a few inches from the bottom. Are there any better end/voltage fed methods?

Any thoughts or other construction methods/ideas appreciated.

Cheers Bob VK2YQA

# 2397. Just a test. Do not read.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-18 10:49:52 UTC
From: Erwin <vanburen@pe1lzx.xs4all.nl>
Message-ID: <bivop098susugm0ac70sgur7ea5dbo6tmq@4ax.com>
Source record: 86494

Just a test. Do not read.

--

Met vriendelijk groet, Erwin pe1lzx

Email: vanburen@pe1lzx.xs4all.nl (deze niet gebruiken)
Email: erwin@pe1lzx.xs4all.nl (deze wel gebruiken)
http://pe1lzx.xs4all.nl

## 2398. Re: HF antenna for boat portable?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-18 13:53:10 UTC
From: Chuck <nospam@nospam.com>
Message-ID: <aP1nd.4046$pK6.793@newsread2.news.atl.earthlink.net>
Source record: 86495

Or that only vertically polarized signals can be intercepted by ships at
sea?

Chuck

Gary Schafer wrote:
> On Wed, 17 Nov 2004 11:02:46 -0600, richardharrison@webtv.net (Richard
> Harrison) wrote:
>
>
>>Bob, K5QWG wrote:
>>"dunno know how big your boat is, but possibly a "tape-measure" dipole:"
>>
>>A Go-Tenna is collapsible for easy packing, but twice as long as an
>>equivalent monopole, used against the sea, a near perfect ground.
>>
>>A Go-Tenna can be deployed as a vertical and so could be effective at
>>sea but requires twice the altitude of an equivalent monopole.
>>
>>Horizontal deployment requires an elevation of a couple of wavelengths
>>at sea to be very effective. That`s usually excessive.
>>
>>Recall that the ground wave is vertically polarized. There is no
>>horizontally polarized wave propagation over the sea.
>>
>>Terman says on page 808 of his 1955 edition:
>>"Examination of these vector diagrams show that with s perfect reflectoe
>>the horizontal components of the electric field will exactly cancel each
>>other at the surface of the perfect reflector. In contrast the vertical
>>components of the electric field of the incident and reflected waves do
>>not cancel, but rather add at the reflector surface with small values of
>>Psi 2 (the vertical takeoff angle from the surface)."
>>
>>Best regards, Richard Harrison, KB5WZI
>
>
>
> Are you saying that my low (less than 1/2 wavelength high) horizontal
> antenna will be next to useless if I live on the sea shore? And that
> same antenna will perform much better if I live inland where soil
> conditions are poor?
>
> 73
> Gary K4FMX

# 2399. Re: HF antenna for boat portable?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-18 14:49:44 UTC
From: richardharrison@webtv.net
Message-ID: <2353-419CB688-181@storefull-3256.bay.webtv.net>
Source record: 86496

Gary, K4FMX wrote:
"Are you saying that my low (less than 1/2 wavelength high) horizontal antenna will be next to useless if I live on the sea shore?"

No. Your antenna will do whatever it does. I said that sea water reflects so well that the reflected ray from the sea is almost as strong as the incident ray. At low angles they cancel when horizontally polarized, being equal and of opposite polarity, and this eliminates low-angle radiation. This is demonstrated in Figs. 13 & 14 on page 3-12 of the 19th edition of the "ARRL Antenna Book".

Low horizontal wires tend to send most energy straight up. This can provide near vertical incidence contacts.

For distance, when the reflecting surface is good (sea water) and the antenna is low, the antenna had better be placed vertically. Results are shown in Fig 16 on page 3-13 of the same book.

Best regards, Richard Harrison, KB5WZI

# 2400. Re: HF antenna for boat portable?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-18 15:13:00 UTC
From: richardharrison@webtv.net
Message-ID: <11998-419CBBFC-223@storefull-3255.bay.webtv.net>
Source record: 86498

Chuck wrote:
"Or that only vertically polarized signals can be intercepted by ships at sea?"

I served on a navy ship in WW-2. Our antenna was a low-L. It could intercept either polarity but responded only to line of sight and high-angle signals. This was a deliberate design. The Navy did not want our emissions QRM-ing the world. Our range was limited to about 500 miles. We could contact our shore destinations at about 2 days travel from them (our ship was slow).

Best regards, Richard Harrison, KB5WZI

# 2401. Re: HF antenna for boat portable?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-18 15:23:35 UTC
From: Bob Miller <rmiller47@satx.rr.com>
Message-ID: <6ffpp0dccsu08e8m1kfd02d0bhprkdg00v@4ax.com>
Source record: 86497

On Thu, 18 Nov 2004 08:49:44 -0600, richardharrison@webtv.net (Richard Harrison) wrote:

>Gary, K4FMX wrote:
>"Are you saying that my low (less than 1/2 wavelength high) horizontal
>antenna will be next to useless if I live on the sea shore?"
>
>No. Your antenna will do whatever it does. I said that sea water
>reflects so well that the reflected ray from the sea is almost as strong
>as the incident ray. At low angles they cancel when horizontally
>polarized, being equal and of opposite polarity, and this eliminates
>low-angle radiation. This is demonstrated in Figs. 13 & 14 on page 3-12
>of the 19th edition of the "ARRL Antenna Book".

The description for the radiation patterns say they are over flat ground. Would the patterns be similar over water?

bob
k5qwg

>
>Low horizontal wires tend to send most energy straight up. This can
>provide near vertical incidence contacts.
>
>For distance, when the reflecting surface is good (sea water) and the
>antenna is low, the antenna had better be placed vertically. Results are
>shown in Fig 16 on page 3-13 of the same book.
>
>Best regards, Richard Harrison, KB5WZI

## 2402. Re: HF antenna for boat portable?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-18 15:33:03 UTC
From: Keyboard In The Wilderness <Key@Kennel.net>
Message-ID: <Pg3nd.149070$hj.22099@fed1read07>
Source record: 86499

A local here used a 20M Hamstick in a canoe -- worked Japan from Arizona

Hamsticks at URL:
http://www.hamstick.com/

--
The Anon Keyboard
I doubt, therefore I might be

# 2403. Re: HF antenna for boat portable?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-18 15:55:47 UTC
From: Chuck <nospam@nospam.com>
Message-ID: <7C3nd.4095$pK6.2626@newsread2.news.atl.earthlink.net>
Source record: 86500

Hello Richard,

I think Gary and I were taking issue with your statement:

"Recall that the ground wave is vertically polarized. There is no
horizontally polarized wave propagation over the sea."

While the first sentence is correct, the second would be a bit of
surprise if it were true. Indeed, your experience on the naval vessel
utilized horizontal propagation over the sea. But it is not correct to
equate horizontal polarization with low-angle polarization.

I think I understand what you meant to say.

73,

Chuck

Richard Harrison wrote:
> Gary, K4FMX wrote:
> "Are you saying that my low (less than 1/2 wavelength high) horizontal
> antenna will be next to useless if I live on the sea shore?"
>
> No. Your antenna will do whatever it does. I said that sea water
> reflects so well that the reflected ray from the sea is almost as strong
> as the incident ray. At low angles they cancel when horizontally
> polarized, being equal and of opposite polarity, and this eliminates
> low-angle radiation. This is demonstrated in Figs. 13 & 14 on page 3-12
> of the 19th edition of the "ARRL Antenna Book".
>
> Low horizontal wires tend to send most energy straight up. This can
> provide near vertical incidence contacts.
>
> For distance, when the reflecting surface is good (sea water) and the
> antenna is low, the antenna had better be placed vertically. Results are
> shown in Fig 16 on page 3-13 of the same book.
>
> Best regards, Richard Harrison, KB5WZI
>

# 2404. Re: Need help identifying an antenna connector

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-18 16:13:45 UTC
From: K7MEM <k7mem@myrealbox.com>
Message-ID: <cnihnp$edn5@cui1.lmms.lmco.com>
Source record: 86501

googlegroups@kd7ump.ftml.net wrote:
> Hi, Greg.
>
> Thanks for your reply. I did get a reply back from Cable Xperts who
> theorized that it might be a QMA connector. They don't carry QMA
> connectors anymore, but I found a picture of a QMA plug on Amphenol's
> site and it isn't the right one :(
>
> Anyone else have an idea?
>

To me, your connector looks like a "Mini 75 Ohm SMB" plug.

I have a connector catalog in front of me from Pasternack Enterprises,
but without exact dimensions, it's difficult to be sure.

Try http://www.pasternack.com or send them email at sales@pasternack.com

Their web site should have some phone numbers as well.

--
Martin E. Meserve - K7MEM
http://www.k7mem.150m.com

# 2405. Re: HF antenna for boat portable?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-18 16:30:22 UTC
From: richardharrison@webtv.net
Message-ID: <604-419CCE1E-47@storefull-3253.bay.webtv.net>
Source record: 86502

Bob, K5QWG wrote:
"The description for the radiation patterns say they are over the ground. Would the patterns be similar over water?"

The legend says:
"The solid-line curves are the flat, perfect-earth (read sea water) patterns, and the shaded curves represent the effects of average flat earth---."

Best regards, Richard Harrison, KB5WZI

# 2406. Re: HF antenna for boat portable?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-18 17:18:42 UTC
From: richardharrison@webtv.net
Message-ID: <10262-419CD972-92@storefull-3252.bay.webtv.net>
Source record: 86503

Chuck wrote:
"While the first sentence is correct, the second would be a bit of a surprise if true."

Terman writes on page 803 of his 1955 edition:
"The ground wave is vertically polarized, because any horizontal component of electric field in contact with the earth is short-circuited by the earth."

On page 808 of the same book:
"Examination of the vector diagrams shows that with a perfect reflector (read sea water) the horizontal components of electric field will exactly cancel each other at the surface of the perfect reflector. In contrast, the vertical components of the electric field of the incident and reflected waves do not cancel, but rather add at the reflector surface with (small values of elevation angle from the surface) Psi.

It`s true. Terman has been tested for 7 decades.

Best regards, Richard Harrison, KB5WZI

# 2407. Re: HF antenna for boat portable?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-18 17:45:59 UTC
From: richardharrison@webtv.net
Message-ID: <604-419CDFD7-64@storefull-3253.bay.webtv.net>
Source record: 86504

Gary, K4FMX wrote:
"Are you saying that my low (less than 1/2 wavelength high) horizontal antenna will be next to useless if I live on the sea shore?"

No, but at some distance from the water, its benefits fade away. I`ve read, and I don`t remember where, that the benefit of high conductivity only extends 1 or 2 blocks back from the water`s edge and then it is gone.

More money is spent on Viagra and breast implants than on Alzheimer`s research. With aging baby boomers, we may soon have crowds of salient people who don`t know why.

Best regards, Richard Harrison, KB5WZI

# 2408. Re: 5/8 over 5/8 over 5/8.. On 2m - Looking for ideas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-18 17:54:16 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <j6opp0lbvprgkq0pfi6u2i4n9htfp4gr61@4ax.com>
Source record: 86505

On Thu, 18 Nov 2004 20:50:10 +1100, Bob Bob <bcnntp@optusnet.com.au>
wrote:
>Any thoughts or other construction methods/ideas appreciated.

Hi Bob,

Given the title of the thread and the nature of your quest, I would
suggest you research the "Franklin Array."

73's
Richard Clark, KB7QHC

# 2409. Re: HF antenna for boat portable?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-18 18:29:08 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10ppqflfig8v091@corp.supernews.com>
Source record: 86506

This could be a little misleading.

Horizontal antennas perform just about the same over salt water as they do over regular ground, with one exception: If the horizontal antenna is low, very high angle waves will be attenuated when over real ground, but won't be attenuated nearly as much if over sea water. The radiation at zero elevation angle is zero for any antenna height and ground conductivity. So there's nothing about sea water that would make a horizontal antenna work worse than over ground.

However, a vertically polarized antenna has much stronger low angle radiation when over sea water (*) than when over plain ground. And this low angle radiation can be much stronger than anything but a very high horizontal antenna. So a vertically polarized antenna is usually the best choice for a boat.

I also don't think that an L antenna is the best idea, especially if the horizontal part is low. If it is, the horizontal portion radiates mostly straight up, wasting part of your power. It's a better idea to make a T shaped antenna. Then the top will radiate very little, leaving most of the radiation to the vertical section.

(*) The important factor for good low angle radiation is the ground conductivity at the point where reflection occurs, rather than the conductivity just under the antenna. For lower and lower angles, the reflection occurs at farther and farther distances from the antenna. Also, the reflection occurs farther away as the antenna gets higher. For typical HF antennas and low angle propagation, the important region is on the order of up to a few hundred feet from the antenna. Efficiency is a separate issue, and for that, the important thing is the conductivity just under and close to the antenna. Having the antenna directly over salt water makes getting a good low loss ground connection easy, as another poster pointed out.

Roy Lewallen, W7EL

Richard Harrison wrote:

> Gary, K4FMX wrote:
> "Are you saying that my low (less than 1/2 wavelength high) horizontal
> antenna will be next to useless if I live on the sea shore?"
>
> No. Your antenna will do whatever it does. I said that sea water
> reflects so well that the reflected ray from the sea is almost as strong
> as the incident ray. At low angles they cancel when horizontally
> polarized, being equal and of opposite polarity, and this eliminates

> low-angle radiation. This is demonstrated in Figs. 13 & 14 on page 3-12
> of the 19th edition of the "ARRL Antenna Book".
>
> Low horizontal wires tend to send most energy straight up. This can
> provide near vertical incidence contacts.
>
> For distance, when the reflecting surface is good (sea water) and the
> antenna is low, the antenna had better be placed vertically. Results are
> shown in Fig 16 on page 3-13 of the same book.
>
> Best regards, Richard Harrison, KB5WZI
>

# 2410. Re: Need Near Field equations problems

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-18 18:41:40 UTC
From: onyx49@juno.com
Message-ID: <eae43c.0411181041.510c6dc@posting.google.com>
Source record: 86508

> >> I think Richard has hit the nail on the head. I wish calculation of
> >> electromagnetic fields could be reduced to a simple equation. Any
> >> undergraduate text on electromagnetics barely scratches the surface. I
> >> suggest you check the site at www.nec2.org and download the .pdf version
> >> of the "NEC Program Description -- Theory". Gives an overview of "Method
> >> of Moments". As a foundation Kraus' Electromagnetics may help, and is
> >> available used (and cheap) at www.bn.com. Also at the same site a
> >> reprint of "Field Computation by Moment Methods" by Roger F. Harrington
> >> can be obtained for $33.50. Then there is the "Finite Element" method as
> >> used by "Ansoft's" HFSS".
> >>
> >>
> >> Regards,
> >>
> >> Frank
> >>
> >
> >

Allow me post a couple of formulae ?? formulas ??
How about equations?

Balanis 2 Ed. p 32-33
Reactive near field -> .62 * A
where A = Square Root of (D^3)/lambda
D= length of a Hertzian dipole (both elements)
lambda is the wavelength of a transmitting frequency
radiating near field -> 2*(D^2)/lambda
Outside of that is the far field.
This is area that you seem concerned about.
Krauss uses Reactive near field as inside lamda/(2 * pie)

Do you work for a group of physicists? I have encountered the
field equations from a physics text by Young and Friedman.

Dave

# 2411. Reflected Energy

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-18 18:49:36 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <419ce98c_3@127.0.0.1>
Source record: 86507

Here's an interesting website:

http://micro.magnet.fsu.edu/primer/java/interference/waveinteractions/

Destructive and constructive interference can be explored
using a javascript application. What is asserted at the
bottom of the page is particularly interesting:

"In addition, when two waves of equal amplitude and wavelength
that are 180-degrees (half a wavelength) out of phase with each
other meet, they are not actually annihilated, as suggested in
Figure 1. All of the photon energy present in these waves must
somehow be recovered or redistributed in a new direction, according
to the law of energy conservation (photons are not capable of self-
annihilation). Instead, upon meeting, the photons are redistributed
to regions that permit constructive interference, so the effect should
be considered as a redistribution of light waves and photon energy
rather than the spontaneous construction or destruction of light.
Therefore, simple diagrams, such as the one illustrated in Figure 1,
should only be considered as tools that assist with the calculation of
light energy traveling *in a specific direction*." i.e. if Figure 1
didn't ignore reflections, there would be wave(s) traveling off in
some other direction(s).

Translating this to the match point in a transmission line with
reflections: Destructive interference between two reflected waves
cause the elimination of reflections toward the source in a matched
system. "All of the photon energy present in these (canceled) waves
must somehow be recovered or redistributed in a new direction, ..."

There's only one other direction in a transmission line and that's
back toward the load. When the reflected energy is re-reflected
(redistributed) at a match point, it is simply following the existing
laws of EM physics.
--
73, Cecil, W5DXP

## 2412. Re: Reflected Energy

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-18 18:54:32 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <pmrpp0ts618lvuelh1e8itce3ckd5l6qag@4ax.com>
Source record: 86509

On Thu, 18 Nov 2004 12:49:36 -0600, Cecil Moore <w5dxp@hotmail.com>
wrote:
>"All of the photon energy present in these (canceled) waves
>must somehow be recovered or redistributed in a new direction, ..."
Was and has been Orthogonal to the direction of propagation - nothing
has changed.
>There's only one other direction in a transmission line and that's
>back toward the load.
This does not follow from the other.

# 2413. Re: Reflected Energy

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-18 19:56:27 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <cniust$rt9$1@news.service.uci.edu>
Source record: 86510

Richard Clark wrote:

> On Thu, 18 Nov 2004 12:49:36 -0600, Cecil Moore <w5dxp@hotmail.com>
> wrote:
>
>>"All of the photon energy present in these (canceled) waves
>>must somehow be recovered or redistributed in a new direction, ..."
>
> Was and has been Orthogonal to the direction of propagation - nothing
> has changed.
>
>>There's only one other direction in a transmission line and that's
>>back toward the load.
>
> This does not follow from the other.

Moreover, the point being missed by the original correspondent (one which is obvious from this and other descriptions of the phenomena), is that no _energy_ is transferred in the direction of totally destructive interfering waves - a point which I have made repeatedly on this newsgroup, and which he has steadfastly refused to accept. The observation that the energy in question must go elsewhere remains obvious.

73, Jim AC6XG

# 2414. Re: 5/8 over 5/8 over 5/8.. On 2m - Looking for ideas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-18 20:12:09 UTC
From: richardharrison@webtv.net
Message-ID: <12000-419D0219-28@storefull-3255.bay.webtv.net>
Source record: 86512

Richard Clark wrote:
"I would suggest you research the "Franklin Array"."

Current reverses at the open-circuit end of an antenna. 180-degrees back from the open end it reverses again. Current flowing in opposite directions begins to reduce the field strength perpendicular to the antenna when the total length reaches 5/8-wavelength.

At a point 1/2-wave or 5/8-wave back from the open circuit, a phase inverter is used to produce (2) mostly in-phase antenna segments. Some ways to get in-phase segments are to drive the array at that point. Or, to connect the segments through a short-circuit 1/4-wave stub. The "Super-J Maritime Antenna" in the ARRL Antenna Book uses this method. Or, use a lumped network in place of the short-circuit stub.

Kraus shows an interesting and simple phase inverter in Figure 23-21(b) on page 824 of his 3rd edition of "Antennas". The inverters are self-resonant coils. No external capacitors required. They are "traps".

Best regards, Richard Harrison, KB5WZI

# 2415. Re: Reflected Energy

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-18 20:20:48 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <419cfeea$1_1@127.0.0.1>
Source record: 86511

Richard Clark wrote:

> Cecil Moore <w5dxp@hotmail.com> wrote:
>>"All of the photon energy present in these (canceled) waves
>>must somehow be recovered or redistributed in a new direction, ..."
>
> Was and has been Orthogonal to the direction of propagation - nothing
> has changed.

The Melles-Groit web page says: "In the absence of absorption or scatter,
the principle of conservation of energy indicates all "lost" reflected
intensity will appear as enhanced intensity in the transmitted beam."

This is in regards to a thin-film anti-glare coating. If a laser beam
is perpendicular to the plane of the thin-film, the reflected beam
and the transmitted beam will lie in a STRAIGHT LINE. Where did you
get the idea that it has to be "orthogonal to the direction of
propagation"?

>>There's only one other direction in a transmission line and that's
>>back toward the load.
>
> This does not follow from the other.

Sure it does. There are only two directions possible in a transmission
line and if energy traveling toward the source is "redistributed in a
new direction", there exists only one other direction available, i.e.
toward the load.
--
73, Cecil, W5DXP

# 2416. Re: HF antenna for boat portable?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-18 20:30:49 UTC
From: richardharrison@webtv.net
Message-ID: <11999-419D0679-88@storefull-3255.bay.webtv.net>
Source record: 86514

Roy, W7EL wrote:
"The radiation at zero elevation angle is zero for any antenna height
and ground conductivity."

It is the equal and opposite reflection which cancels the incident wave
at an equal distance from the reflection point, i.e. toward the horizon.

Extremely low conductivity would produce radiation as in free space; no
cancellation in the horizontal plane.

Best regards, Richard Harrison, KB5WZI

# 2417. Re: Reflected Energy

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-18 20:35:43 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <vk1qp05h0v2jh7rqlhi9tbthci88elevt7@4ax.com>
Source record: 86513

On Thu, 18 Nov 2004 14:20:48 -0600, Cecil Moore <w5dxp@hotmail.com>
wrote:
>Where did you get the idea that it has to be "orthogonal to the direction of propagation"?
A commonplace of Optical Engineering as taught, practiced and observed

# 2418. Re: Reflected Energy

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-18 21:27:59 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <419d0eaa$1_4@127.0.0.1>
Source record: 86515

Jim Kelley wrote:
> Moreover, the point being missed by the original correspondent (one
> which is obvious from this and other descriptions of the phenomena), is
> that no _energy_ is transferred in the direction of totally destructive
> interfering waves - a point which I have made repeatedly on this
> newsgroup, and which he has steadfastly refused to accept.

You know that's a false statement, one of many you have made about
my postings.

Of course, no energy is transferred past the match point in the
direction of totally destructive interfering waves. DUUUHHHHHH,
THAT'S WHY THE REFLECTED POWER METER READS ZERO ON THE SOURCE
SIDE OF THE MATCH POINT, DUUUHHHHHH. And that's why the reflected
energy traveling toward the source on the load side of the match
point gets redistributed in the only other available direction,
i.e. re-reflected back toward the load.

What I said was: For two reflected waves to cancel, they must
first exist even if for only an infinitesimally small amount of
time. Since you disagree with that, it means the reflected waves
never existed. And if, as you say, they never existed, how could
they possibly cancel? You seem to have invented a new phenomena -
two waves canceling without the waves ever existing.
--
73, Cecil, W5DXP

# 2419. Re: 5/8 over 5/8 over 5/8.. On 2m - Looking for ideas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-18 21:29:48 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <419d0f17$1_4@127.0.0.1>
Source record: 86516

Richard Harrison wrote:
> Kraus shows an interesting and simple phase inverter in Figure 23-21(b)
> on page 824 of his 3rd edition of "Antennas". The inverters are
> self-resonant coils.

Since there is no phase shift through a coil, how could that
possibly work? :-)
--
73, Cecil, W5DXP

## 2420. Re: Reflected Energy

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-18 21:32:53 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <419d0fcf$1_4@127.0.0.1>
Source record: 86517

Richard Clark wrote:

> Cecil Moore <w5dxp@hotmail.com> wrote:
>>Where did you get the idea that it has to be "orthogonal to the direction of propagation"?
>
> A commonplace of Optical Engineering as taught, practiced and observed

```
| |
Laser--------| thin-film | glass ...
| |
```

Where are your orthogonal beams of light?
--
73, Cecil, W5DXP

# 2421. Re: HF antenna for boat portable?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-18 21:47:15 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10pq633qo7n2hc3@corp.supernews.com>
Source record: 86518

Richard Harrison wrote:

> Roy, W7EL wrote: "The radiation at zero elevation angle is zero for
> any antenna height and ground conductivity."
>
> It is the equal and opposite reflection which cancels the incident
> wave at an equal distance from the reflection point, i.e. toward the
> horizon.
>
> Extremely low conductivity would produce radiation as in free space;
> no cancellation in the horizontal plane.

No, that's not true. The radiation at zero elevation angle is zero for any antenna height and ground conductivity, even "extremely low".

Sometimes it's necessary to look beyond simplified quotes read in books, and read and understand the underlying math. In this case, the math can be found as equation 1(*) on p. 717 of Kraus' _Antennas_, 2nd Ed. (I thought this was also in the 1st Ed., but can't find it there.) This is the equation for reflection coefficient from ground for horizontal polarization. It's easily seen that it equals -1 at an elevation angle (alpha) = 0 for any value of ground conductivity or permittivity. (Note that epsilon-sub-r is the complex permittivity, as shown in eq. 4(**), which contains the conductivity.) The total field is given in equation 3(***), which shows that its value is zero when the elevation angle is zero and the reflection coefficient is -1.

This is, however, entirely theoretical. As the elevation angle gets lower and lower, the reflection point becomes farther and farther from the antenna. So a reflection at zero elevation angle takes place at an infinite distance from the antenna. Among other problems, this requires an observation point an infinite distance away and a perfectly flat ground plane that's infinite in extent. While this is the standard for a lot of theoretical analysis and in programs like NEC, MININEC, and EZNEC, it of course can't be constructed in reality. In real life, the Earth curves away, so if the terrain is perfectly flat, extremely low angle radiation never strikes the ground. (Without working through the numbers, I'd guess this to be below a small fraction of a degree for a moderate antenna height. But it would be easy to calculate.) Again theorectically, still using a simple reflection model but now with an idealized model of a spherical ground, you'd get a free space pattern at zero elevation angle and up to a fraction of a degree *regardless of the ground conductivity*. But when slicing things this thin, you probably need to use a better reflection model, which takes into account dispersion and refraction. I'm not sure how that would modify the result.

(*) rho(horiz) = (er*sin(a) - sqrt(er - cos^2(a))) / (er*sin(a) +
sqrt(er - cos^2(a))) where

er = epsilon-sub-r = (complex) relative permittivity of the ground
a = alpha = elevation angle

(**) er = er' - j * sigma/(omega * e0) where

er' = epsilon-sub-r prime = (DC) dielectric constant of the ground
sigma = ground conductivity
omega = radian frequency = 2 * pi * f
e0 = permittivity of free space

(***) E(horiz) = 1 + rho(horiz) * [cos(2*Bh*sin(a) + j*sin(2*Bh*sin(a)]
where

B = beta = 2 * pi / wavelength
h = height of horizontal antenna above ground
a = alpha = elevation angle

Roy Lewallen, W7EL

# 2422. Re: Need help identifying an antenna connector

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-18 22:29:11 UTC
From: w9gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <Xm9nd.115423$R05.15524@attbi_s53>
Source record: 86519

"Kevin Mills" <googlegroups@kd7ump.ftml.net> wrote in message
news:ad434b7d.0411171001.362bfa5@posting.google.com...
>I apologize if this post is slightly off-topic for this group, but I'm
> pretty sure you're the right crowd for the question...
>
> I'm trying to connect a Yagi antenna to an old 915MHz WaveLAN wireless
> access point (circa 1997). I have searched high and low, but cannot
> figure out what type of connector I need. Since a picture is worth a
> thousand words, I've taken the liberty of providing some visual aid!
> Here is a picture of the mystery connector I'm hoping to identify:
>
> http://kd7ump.ftml.net/WaveLANAntennaConnector.jpg
>
> Now, this looks suspiciously like an SMB connector. Alas, it is not.
> I had a custom pigtail cable made (for $38!) using an SMB connector
> and it is not a match. Here is a picture of the mystery connector and
> the SMB connector side-by-side:
>
> http://kd7ump.ftml.net/WaveLAN-SMB.jpg
>
> Close, but no go :( If anyone has an idea what this might be (or has
> some other clever idea on how to get from the access point to a RP-TNC
> connector) please, please let me know!

Kevin -

It looks like a bit like reverse TNC. There were some proprietary
connectors and Lucent used the Proprietary ORiNOCO on many of their
products (late 1990s), Lucent and Orinoco used the same cards for some
models. Cross reference a connector known as: SMZ

Drop an e-mail to Fab Corp., and tell them exact model you have -- they
should be able to cross reference.
http://www.fab-corp.com/

Here are a couple of web sites to review:

http://www.rflinx.com/Support/wlan_radio_connector_reference.htm

http://www.austinwireless.net/cgi-bin/index.cgi/WirelessCards

Greg
w9gb

## 2423. Radial connections

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-18 22:35:18 UTC
From: Bill Ogden <wogden@attglobal.net>
Message-ID: <Gs9nd.17012$hc5.8899863@news4.srv.hcvlny.cv.net>
Source record: 86520

I have three ground rods each about 30 inches from a leg of my tower. I want to connect about 40 radials to the tower. It would be much easier to connect the radials to the ground rods and then have a single connection from each ground rod to the base of the tower. My interest in 160 meters - 30 meters. Is there a problem with this?

I am using #2 battery cables from the ground rods to the tower base. These have a nice clamp on one end; with a copper shim the clamp works on the ground rod. The other end has a lug that fits between a pair of ss washers that are compressed by an extra 1" nut on the concrete bolts of the tower base. (I will try to seal this area to keep excessive water from it.) (It is a small tower in an area not very lightning prone.)

Bill
W2WO

## 2424. Single ground

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-18 22:51:40 UTC
From: Bill Ogden <wogden@attglobal.net>
Message-ID: <0l9nd.17020$hc5.8943781@news4.srv.hcvlny.cv.net>
Source record: 86521

In almost 45 years of ham operation I have never bothered with a "good" ground connection. I am in what might be my last location and now have a "real" tower (55' crank up). I understand the principles behind a single ground, or at least I think I do. However, ideal requirements (as often quoted in various codes and standards manuals) need to be matched with what one can actually do.

I have several ground rods by the tower and one by the entry to my basement shack. The tower-to-entry-point has two #10 wires in the trench (but not not in the conduit) that connect the nearest of the tower ground rods to the entry-point rod. The distance is about 45'.

From the entry point area to the rig is about 10' and has a single #10 wire. Also from the rig area to the electrical panel is another #10 wire that is about 40'.

Is this a reasonable arrangement? Is it better than nothing? Worse than nothing?

I will shortly place two ICE units at the entry point on the two coax lines from the tower. I am still considering what to do with the control lines --- there are 12 for a SteppIR, 6 for a rotator, and 6 for a remote coax switch.

Bill
W2WO

# 2425. Re: Reflected Energy

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-18 23:03:08 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <m3aqp098g2401024kql2tg3ebll8e965n7@4ax.com>
Source record: 86422

On Thu, 18 Nov 2004 15:32:53 -0600, Cecil Moore <w5dxp@hotmail.com>
wrote:
>Where are your orthogonal beams of light?
Where do you see the words "beams" in
>>"All of the photon energy present in these (canceled) waves
>>must somehow be recovered or redistributed in a new direction, ..."
or are you impeaching your own evidence?

# 2426. Re: Reflected Energy

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-18 23:15:08 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <419d2b02$1_5@127.0.0.1>
Source record: 86423

Richard Clark wrote:
> Cecil Moore <w5dxp@hotmail.com> wrote:
>>Where are your orthogonal beams of light?
>
> Where do you see the words "beams" in
>
>>>"All of the photon energy present in these (canceled) waves
>>>must somehow be recovered or redistributed in a new direction, ..."
>
> or are you impeaching your own evidence?

I believe the proper response is "non sequitur", i.e.
your response makes no sense at all. If your orthogonal
responses are not "beams of photons", pray tell, exactly
what are they?
--
73, Cecil, W5DXP

# 2427. Re: Single ground

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-19 00:33:34 UTC
From: Jack Painter <223bthp@cox.net>
Message-ID: <zbbnd.1127$wa1.571@lakeread04>
Source record: 86425

"Bill Ogden" <wogden@attglobal.net> wrote

> I have several ground rods by the tower and one by the entry to my
basement
> shack. The tower-to-entry-point has two #10 wires in the trench (but not
> not in the conduit) that connect the nearest of the tower ground rods to
the
> entry-point rod. The distance is about 45'.
>
> From the entry point area to the rig is about 10' and has a single #10
wire.
> Also from the rig area to the electrical panel is another #10 wire that is
> about 40'.
>
> Is this a reasonable arrangement? Is it better than nothing? Worse than
> nothing?

Hi Bill, it's reasonable and better than most, providing the following is
also true:

The coax shields grounded at the tower (min. at the bottom, best top and
bottom), and again at the basement entrance single point ground. Shields
must be grounded before connection to an arrestor.

> I will shortly place two ICE units at the entry point on the two coax
lines
> from the tower. I am still considering what to do with the control
> lines --- there are 12 for a SteppIR, 6 for a rotator, and 6 for a remote
> coax switch.
>
> Bill
> W2WO

ICE also makes protection for control lines. I have no experience with them
in particular, but my six ICE coax arrestors have handled a lot of surge
from several strikes less than 100' away, two of which were within 50' of
antennas.

I would also add that the importance of the bonding between shack single
point ground and AC service entry point ground is critical to prevent ground
potential rise (GPR) from a nearby strike's energy from going through your
equipment via your own ground connections. The path in from ground and out
through the back of your equipment AC power cords will always exist, but
with proper bonding it will not be a destructive connection. Most stations
have this station-ground to mains-ground bonding conductor outside the
station, but I don't see the harm of having it inside either *if* it was a

very short distance [yours is NOT SHORT]. The shorter the route for this bond the better, whatever path it may take. NEC requires it be less than 20'. Fat chance you say. Alternatives are to provide multiple ground rods along a >20' path of this critical bond. That means change your bonding conductor to run outside, from the station single point ground (rod), via a couple additional rods, to the AC mains service entry ground (rod).

73,
Jack Painter
Virginia Beach VA

# 2428. Re: Need help identifying an antenna connector

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-19 00:56:31 UTC
From: microwaves@blueyonder.co.uk
Message-ID: <419d446e.136414904@news.blueyonder.co.uk>
Source record: 86426

On Wed, 17 Nov 2004 22:50:10 -0600, "Crazy George"
<muNnscOh@attSglPobaAl.nMet> wrote:

>Kevin:
>
>It is an "inverted" SMB. The FCC mandated non-standard connectors on wireless stuff to prevent casual tinkerers from
>sticking yagis on them. Thus came "inverted" BNC, TNC, SMA, SMB, and a bunch of others with a female center pin in a
>male body and vice- versa. Try Pasternack.

For which adapters to normal SMA s are now widely available over here
in the UK!

Peter, G3PHO

# 2429. Re: Single ground

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-19 01:10:57 UTC
From: Gary Schafer <gaschafer@comcast.net>
Message-ID: <ovhqp0dhoch8g3f8iaikjj74a8rfuetop9@4ax.com>
Source record: 86427

Bill,

I would reroute the wire from your electrical panel directly to the ground rod just outside your entry. Then from there run a single line to your rig. This keeps the rig out of the middle of the ground connections. If possible your AC line for the rig should run from where that ground rod is. AC protectors should be put at that point along with the coax protectors. Now you have a single point ground system and the rig is not in the middle of things. All grounds are at one point including all your protectors.

As far as the control wires, get some large MOV's and place one on each line to ground. Again at your single ground point where your ground rod is at the entrance.

With several control lines any surge energy that comes down them will be shared by all. You can get by without gas tubes in this situation as all those MOV's are effectively in parallel.

If you look inside a rotator protector like Polyphaser makes that is all you will find in them.

The ground connection from your protection devices to your ground rod should be as short and as large as you can manage. 3" wide copper strap if the distance is a few feet. If it is a little longer run place two copper straps edge to edge in parallel or a 6" strap.

It is important to have a low resistance / low inductance path to your ground system. In addition you may want to add more ground rods / radials to your entrance ground. Even just buried radials run out in different directions away from that single ground rod that you have will help lots. Placing an additional ground rod at the end of each is still better. The big thing is to run the radials in different directions to get some space between your ground rods. Ideally the distance between rods should be the sum of their lengths.
The ground saturates when trying to dissipate energy in one place. Spreading it out increases the amount of energy you can dump in a given amount of time.

73
Gary K4FMX

On Thu, 18 Nov 2004 22:51:40 GMT, "Bill Ogden" <wogden@attglobal.net> wrote:

>In almost 45 years of ham operation I have never bothered with a "good"
>ground connection. I am in what might be my last location and now have a

>"real" tower (55' crank up). I understand the principles behind a single
>ground, or at least I think I do. However, ideal requirements (as often
>quoted in various codes and standards manuals) need to be matched with what
>one can actually do.
>
>I have several ground rods by the tower and one by the entry to my basement
>shack. The tower-to-entry-point has two #10 wires in the trench (but not
>not in the conduit) that connect the nearest of the tower ground rods to the
>entry-point rod. The distance is about 45'.
>
>From the entry point area to the rig is about 10' and has a single #10 wire.
>Also from the rig area to the electrical panel is another #10 wire that is
>about 40'.
>
>Is this a reasonable arrangement? Is it better than nothing? Worse than
>nothing?
>
>I will shortly place two ICE units at the entry point on the two coax lines
>from the tower. I am still considering what to do with the control
>lines --- there are 12 for a SteppIR, 6 for a rotator, and 6 for a remote
>coax switch.
>
>Bill
>W2WO
>

## 2430. test

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-19 01:16:22 UTC
From: Jim - NN7K <nn7kexk7zfg@NOSPAMsbcglobal.net>
Message-ID: <GPbnd.23099$6q2.14075@newssvr14.news.prodigy.com>
Source record: 86428

test

## 2431. KLM 10-4

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-19 02:31:39 UTC
From: nitram578 <nitram578@charter.net>
Message-ID: <10pqfkq7b67hk44@corp.supernews.com>
Source record: 86424

For Sale: KLM 10-4 a 4 element 10M beam antennae
new in the box complete.

## 2432. tes

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-19 02:41:37 UTC
From: Jim - NN7K <nn7kexk7zfg@NOSPAMsbcglobal.net>
Message-ID: <B3dnd.23135$6q2.2306@newssvr14.news.prodigy.com>
Source record: 86429

rrerr

# 2433. Re: HF antenna for boat portable?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-19 02:43:39 UTC
From: richardharrison@webtv.net
Message-ID: <11998-419D5DDB-331@storefull-3255.bay.webtv.net>
Source record: 86430

Roy, W7EL wrote:
"No, that`s not true. The radiation at zero elevation angle is zero for any antenna height and ground conductivity, even "extremely low"."

We need no simplified quotes nor formulas. Reflection requires a "discontinuity". The resistance of free space is 377 ohms. As long as a traveling wave in space encounters 377 ohms, its velocity and trajectory are not altered.

"Extremely low" could include a soil that for practical purposes appears to the wave as 377 ohms. Surely the earth could be absorbent and not highly reflective. In that case, the reflected wave reaching a distant observer or antenna would come practically from the incident wave alone.

377-ohm earth may be hard to come by. Sheets impregnated with carbon were invnted by Winfield Salisbury at the Harvard Radio Research Laboratory during WW-2. These cloth sheets are patented and are called Salisbury sheets.

A similar technique was contemporaneously developed in Germany by J. Jaumann.

So it`s not likely to just happen upon completely non-reflective soil. But, surely most soil absorbs some energy from the wave striking it. So, the reflection from the soil will be weakened and will be unequal to the task of completely canceling the incident wave. Cancellation at zero degrees will be incomplete.

Best regards, Richard Harrison, KB5WZI

# 2434. Re: 5/8 over 5/8 over 5/8.. On 2m - Looking for ideas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-19 02:55:19 UTC
From: richardharrison@webtv.net
Message-ID: <12000-419D6097-40@storefull-3255.bay.webtv.net>
Source record: 86431

Cecil, W5DXP wrote:
"Since there is no phase shift through a coil, how could that possibly work?"

You put a sticker on the coil maming it a retardation coil. It then must delay the energy and that is phase shift by definition.

Best regards, Richard Harrison, KB5WZI

# 2435. Re: 5/8 over 5/8 over 5/8.. On 2m - Looking for ideas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-19 03:10:15 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <419d621a$1_1@127.0.0.1>
Source record: 86432

Richard Harrison wrote:
> You put a sticker on the coil maming it ...

Watch out - the society for prevention of cruelty to
coils will get you.

# 2436. Re: Need Near Field equations problems

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-19 03:25:53 UTC
From: Frank <ve6cb@NOSPAM.telus.net>
Message-ID: <5Jdnd.1576$l65.1139@clgrps13>
Source record: 86433

"onyx" <onyx49@juno.com> wrote in message
news:eae43c.0411181041.510c6dc@posting.google.com...
>> >> I think Richard..........."Ansoft's" HFSS".
> Allow me post a couple of formulae ?? formulas ??
> How about equations?
>
> Balanis 2 Ed. p 32-33
> Reactive near field -> .62 * A
> where A = Square Root of (D^3)/lambda
> D= length of a Hertzian dipole (both elements)
> lambda is the wavelength of a transmitting frequency
> radiating near field -> 2*(D^2)/lambda
> Outside of that is the far field.
> This is area that you seem concerned about.
> Krauss uses Reactive near field as inside lamda/(2 * pie)
>
> Do you work for a group of physicists? I have encountered the
> field equations from a physics text by Young and Friedman.
>
>
> Dave

Hi Dave:

By inspection, both of your equations show that the units of the solution will be in meters. E field strength units are in V/m, and in the near field, will be complex numbers. From memory, I believe your expression for the near field/far field transition is correct. I do not have my own copy of Balanis, but will check it when I get a chance.

Even for a non-realizable "Hertzian dipole", where the current is assumed to be constant along its entire length, the math is fairly involved. Not sure if a physics text is the best source for antenna studies. By what I have read; Young and Friedman's texts have not had very good reviews -- by students anyway!

No, I do not work for physicists. Most of the time I have worked in EE labs. Electromagnetics is more of a hobby for me. So far I have been using undergraduate texts, such as Paul and Nasar's "Introduction to Electromagnetic fields". The problem with this book is that there are no answers in the back.

Frank

# 2437. Re: Colinear 2 meter antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-19 04:21:51 UTC
From: "Mike M." <notme@invalid.email.net>
Message-ID: <r2rqp0ti6aefc71esaf9gmqtmg6finok5b@4ax.com>
Source record: 86434

On Wed, 17 Nov 2004 13:40:30 -0600, "Ken Bessler"
<kg0wx@NOSPAMyahoo.com> wrotF:

>I'm using the Hustler CG-144 colinear antenna
>with the radial kit. The antenna is 42' above
>ground and fed with 35' of Flexi 4XL coax.
>
>This antenna is apparantly a 1/4 wave phased into
>a 5/8 wave and is working well.
>
>My question is what impedance (SWR) would
>this antenna sho on 446 mhz? I don't have a 440
>mobile but I do have a VX-2R HT and I hooked
>it up on 440 to this antenna and it seemed to
>perform well.
>
>Ken KG0WX
>
>
I was running a cgt-144 and when I got a dual band mobile I used it on
440. The swr was higher than I liked so I added an adjustable grounded
vertical element about a 1/4 wave long about 1.5" away from the
CGT-144. The idea was to turn it into an open stub j-pole on 440. I
was able to get the swr below 2:1 on the repeater input freqs and in
theory the 1/4 wave 2m section (3/4 on 440) would radiate as an end
fed 1/2 wave on 440. It didn't seem to hurt the 2m operation at all.
It didn't work as well on 440 as the dual band Comet CA-2x4SR that I'm
using now but it did work.

I'm also planning on using the CG-144 with radials as fixed station
antenna now that it's been retired from mobile service.

Mike kc9doa

## 2438. Re: Reflected Energy

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-19 05:03:51 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <bfvqp0ded9vneq55nnrl1gncb63esq8ji7@4ax.com>
Source record: 86435

On Thu, 18 Nov 2004 17:15:08 -0600, Cecil Moore <w5dxp@hotmail.com>
wrote:
> pray tell, exactly what are they?
Perhaps you should brush up on the first principles of Optics

## 2439. I passed

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-19 05:50:30 UTC
From: Shadow_998 <hrd998cc@yahoo.nospam.com>
Message-ID: <GQfnd.46278$QJ3.16653@newssvr21.news.prodigy.com>
Source record: 86441

I just wanted to say to this group: I am now KG6TDX/AG

I posted this to the antenna group because this is where I have posted most of my amateur radio questions over the past year (and have gotten the best answers as well!)

I hope to catch some of you on HF soon.

73, Russ

# 2440. Re: Reflected Energy

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-19 12:06:57 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <419ddfe5$1_2@127.0.0.1>
Source record: 86436

Richard Clark wrote:
> Cecil Moore <w5dxp@hotmail.com> wrote:
>> I believe the proper response is "non sequitur", i.e.
>> your response makes no sense at all. If your orthogonal
>> responses are not "beams of photons", pray tell, exactly
>> what are they?

> Perhaps you should brush up on the first principles of Optics

Do you ever give a straight answer? I gave you a laser example.
There are no responses orthogonal to the main beam. Everything,
including reflections and reflected wave cancellation, happens
in a straight line with the laser beam according to the Melles-
Groit web page where they say: " In the absence of absorption or
scatter, the principle of conservation of energy indicates all
"lost" reflected intensity will appear as enhanced intensity in
the transmitted beam." *ALL* intensity is contained in the
transmitted beam in the absence of absorption or scatter.
--
73, Cecil, W5DXP

# 2441. Re: Single ground

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-19 12:44:50 UTC
From: Floyd Sense <fsense@copper.net>
Message-ID: <419deb0b_1@newsfeed.slurp.net>
Source record: 86437

"Jack Painter" <223bthp@cox.net> wrote in message
news:zbbnd.1127$wa1.571@lakeread04...
<<snip>>
> The coax shields grounded at the tower (min. at the bottom, best top and
> bottom), and again at the basement entrance single point ground. Shields
> must be grounded before connection to an arrestor.
>

Jack - regarding your comment on grounding the shields BEFORE connection to an arrestor: My arrestors are mounted on the common ground panel and the coax is grounded via the coax connector to those arrestors. What is the reason for a separate ground prior to that one. Maybe I misunderstood something, but it seems redundant to have a separate ground a few inches from that one.

In response to another's comments regarding protection of the SteppIR, rotor, and other control lines: I use MOVs and .01 bypass caps on all those lines in a box at the base of the tower and have another set of the same at the entry panel box. Those components are mounted via European-style screw terminal strips (12 positions per strip) obtained from Jameco via the Web. Much cheaper than the same from Radio Shack or other sources. MOVs came from Mouser. A lightning strike last year entered my shack via relay control lines which were unprotected at that time. Hopefully, the new arrangement will help.

73, Floyd - K8AC

# 2442. Re: Facts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-19 13:13:08 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <419def6c$1_5@127.0.0.1>
Source record: 86438

Jim Kelley wrote:

> Cecil Moore wrote:
>> So why does an attenuated
>> voltage drop while a current, attenuated by exactly the same
>> percentage, doesn't drop?
>
> Depends on whether 'a' is in series or in shunt.

It would be too much of a coincidence for 'a', the attenuation factor, to be the same whether in series or in shunt. Most of the attenuation at HF is due to I^2*R losses, a series event.

Transmission lines are distributed networks involved with EM wave energy transmission. I^2*R losses can cause a decrease in current just as it can cause a decrease in voltage. The sequence of events is obvious.

1. The RF voltage drops because of I^2*R losses.
2. The proportional E-field decreases because of the voltage drop.
3. Since the E-field to H-field ratio is fixed by Z0, the H-field decreases as does the ExH power in the wave.
4. Since the RF current is proportional to the H-field, the current decreases by the same percentage as the voltage.

The chain of cause and effect is obvious. The current decreases because of I^2*R losses in the transmission line which is a distributed network, not a circuit.
--
73, Cecil, W5DXP

# 2443. TEST Do not read

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-19 14:42:08 UTC
From: sr85 <sr85@bellsouth.net>
Message-ID: <vBnnd.1947$fY.333@bignews3.bellsouth.net>
Source record: 86439

```
Test
--------------------------------------------------------------------------------
---- Dave
```

# 2444. Re: 5/8 over 5/8 over 5/8.. On 2m - Looking for ideas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-19 14:46:16 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <rbSdndNOCIqqmgPcRVn-sg@comcast.com>
Source record: 86440

"Bob Bob" <bcnntp@optusnet.com.au> wrote in message
news:jr7u62-ti8.ln1@p400bob.lse.com.au...
> Hi All
>
> I will be moving to a house early next year that has 90ft trees scattered
> around the backyard. Rather than setup a tower (initially anyway) I am
> looking at hanging a wire (1/2" braid) 2 metre collinear for a rope
> between the trees and feeding it from the bottom end.
>
> Firstly talking about phasing sections. Has anyone come accross the
> maths/size of using a single turn of stiff wire (looks like a ring match)
> to go between the elements? Was thinking a short length of PVC pipe with
> dowel or fibreglass spacers. How big?
>
> What is the general figure of merit for shortening the topmost element by
> when joined to a (say) PVC insulator.
>
> And feeding. Was thinking about the J pole type match - The two parallel
> wires 1/4 wavelenth long and a direct coax feed a few inches from the
> bottom. Are there any better end/voltage fed methods?
>
> Any thoughts or other construction methods/ideas appreciated.
>
> Cheers Bob VK2YQA

Bob,

I don't know about the 5/8, but you are basically on the right track. I once bought an Andrew 1900 MHz vertical that claimed 8 or 10 dbi gain, non directional. It had multiple radiators stacked vertically inside a plastic tube about 1/2 inch OD, couple of feet tall. No idea how it was phased internally, but don't think it had any coils in there. I had it mounted via an N connector on top of a metal box, but don't think it required a ground plane.

Tam/WB2TT

## 2445. Re: Reflected Energy

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-19 17:18:40 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <qfasp0pt3nh4do18on3u2c6v437l2ki0st@4ax.com>
Source record: 86442

On Fri, 19 Nov 2004 06:06:57 -0600, Cecil Moore <w5dxp@hotmail.com>
wrote:
>> Perhaps you should brush up on the first principles of Optics
>There are no responses orthogonal to the main beam.
The original advice now shows its necessity.

## 2446. Re: I passed

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-19 17:40:26 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <hpbsp0huv5tld8ies901e2qcmhpig0siku@4ax.com>
Source record: 86443

Congratulations KG6TDX

73's
Richard Clark, KB7QHC

# 2447. Re: I passed

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-19 17:53:36 UTC
From: Bill-kb3gun <kb3gun-spam@wpia.net>
Message-ID: <419e331a$0$24523$ec3e2dad@news.usenetmonster.com>
Source record: 86444

Congrats!

Bill - KB3GUN

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:hpbsp0huv5tld8ies901e2qcmhpig0siku@4ax.com...
> Congratulations KG6TDX
>
> 73's
> Richard Clark, KB7QHC

# 2448. Re: Facts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-19 18:13:53 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <cnldca$mlt$1@news.service.uci.edu>
Source record: 86445

Jim Kelley wrote:

>
>
> Cecil Moore wrote:
>
>> Reg Edwards wrote:
>>
>>> To clear away all misconceptions and confusion, try returning to
>>> square one
>>> and begin again with a clean slate.
>>>
>>> dV/dz = -(R+j*Omega*L)*I
>>>
>>> dI/dz = -(G+j*Omega*C)*V
>>
>>
>>
>> Those are essentially the differential equations used by Ramo and
>> Whinnery to develop the following exponential equations for load
>> matched transmission lines (no reflections):
>>
>> V = V+(e^-az)(e^-jbz)
>>
>> I = V+(e^-az)(e^-jbz)/Z0
>>
>> where 'a' is the attenuation factor. So why does an attenuated
>> voltage drop while a current, attenuated by exactly the same
>> percentage, doesn't drop?
>
>
> Depends on whether 'a' is in series or in shunt.
>
> 73, ac6xg

Apparently I should have added that distributed resistive losses in
series create distributed voltage drops with a common current through
all, but distributed resistive losses in shunt create a distribution of
Norton current sources, where the shunt current on the transmission line
or radiator at a given point is the sum of all equivalent current
sources between that point and the end of the transmission line/radiator.

73, Jim AC6XG

# 2449. Re: Facts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-19 18:56:58 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <419e3cbd$2_2@127.0.0.1>
Source record: 86446

Jim Kelley wrote:
> Apparently I should have added that distributed resistive losses in
> series create distributed voltage drops with a common current through
> all, but distributed resistive losses in shunt create a distribution of
> Norton current sources, where the shunt current on the transmission line
> or radiator at a given point is the sum of all equivalent current
> sources between that point and the end of the transmission line/radiator.

Distributed shunt resistive losses would imply dielectric losses
which certainly exist but are minimum at HF. We could even assume
a worst case open-wire transmission line made from resistance wire
and located in the vacuum of free space. There doesn't seem to be
any valid way to justify asserting that shunt losses exactly equal
series losses in every possible transmission line at every possible
frequency under every possible conditions. Asserting such is just
an admission that one it trying to force reality to match the math
model rather than vice versa.

In a flat transmission line without reflections, if the E-field
drops, the characteristic impedance of the transmission line
forces energy to migrate from the H-field to the E-field, such
that the constant V/I ratio remains equal to Z0. Thus, the H-field
supplies energy to compensate for the losses in the E-field.
--
73, Cecil, W5DXP

# 2450. Re: Single ground

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-19 19:36:15 UTC
From: Jack Painter <223bthp@cox.net>
Message-ID: <PWrnd.518$D26.161@lakeread03>
Source record: 86447

This was answered off-line but for the group:

"Floyd Sense" <fsense@copper.net> wrote
> "Jack Painter" <223bthp@cox.net> wrote in message
> <<snip>>
> > The coax shields grounded at the tower (min. at the bottom, best top and
> > bottom), and again at the basement entrance single point ground. Shields
> > must be grounded before connection to an arrestor.
> >
>
> Jack - regarding your comment on grounding the shields BEFORE connection
to
> an arrestor: My arrestors are mounted on the common ground panel and the
> coax is grounded via the coax connector to those arrestors. What is the
> reason for a separate ground prior to that one. Maybe I misunderstood
> something, but it seems redundant to have a separate ground a few inches
> from that one.

Coax shield grounding must be accomplished at the tower top, tower base (on ground level, not even 6" above!) and before the arrestor to comply with protector manufacturer requirements and to be in keeping with best engineering practices that are used nationwide in communication tower designs. The grounding just before the arrestor is for two purposes: 1. preventing unnecessary energy (whether capacitively or inductively coupled) from challenging the gas tube, MOV, coil (or all three) mechanisms of a protector, and 2: to help limit the differing potential available to reverse-path voltage from a nearby strike in ground potential rise conditions. A nearby strike can saturate the ground system, and a station ground can reference hundreds of thousands of volts 'up' from the ground, and 'out' via arrestors, phone, power cables to lower potential felt at some distant point. Grounding cable shield at the station single point ground thus helps maintain equipotential for both directions. Even if the station coax arrestors are mounted on the master ground the additional grounding is still helpful for voltage-division during saturated ground conditions. But in all cases that ground bus mount must never be the only place the coax shelding is grounded!

>
> In response to another's comments regarding protection of the SteppIR,
> rotor, and other control lines: I use MOVs and .01 bypass caps on all
those
> lines in a box at the base of the tower and have another set of the same
at
> the entry panel box. Those components are mounted via European-style
screw

> terminal strips (12 positions per strip) obtained from Jameco via the Web.
> Much cheaper than the same from Radio Shack or other sources. MOVs came
> from Mouser. A lightning strike last year entered my shack via relay
> control lines which were unprotected at that time. Hopefully, the new
> arrangement will help.
>
> 73, Floyd - K8AC

Several amateurs have reported successful use of private design MOV on control lines. While this could exceed commercially available equipment specs in some cases, for those less familiar with such designs, they are readily available in package-form to protect control lines.

Jack

# 2451. Re: Facts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-19 20:30:45 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cnll5l$dkp$1@hercules.btinternet.com>
Source record: 86448

Don't forget, as always happens, that when Zo is assumed to be purely resistive, as is always done, it automatically forces wire resistance loss to equal shunt conductance loss. You've lost a degree of freedom. Which has a considerable bearing on your arguments.
----
Reg

# 2452. Re: Reflected Energy

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-19 21:01:52 UTC
From: Spike <gator2nospam@webmail.co.za>
Message-ID: <3075a5F2rnm35U1@uni-berlin.de>
Source record: 86449

"GEEZ!!

# 2453. Re: I passed

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-19 21:05:45 UTC
From: Bob Bob <bcnntp@optusnet.com.au>
Message-ID: <9q3272-tcj.ln1@p400bob.lse.com.au>
Source record: 86452

Well done Russ!

Cheers Bob VK2YQA (Oz)

Shadow_998 wrote:
> I just wanted to say to this group: I am now KG6TDX/AG
>
> I posted this to the antenna group because this is where I have posted most
> of my amateur radio questions over the past year (and have gotten the best
> answers as well!)
>
> I hope to catch some of you on HF soon.
>
> 73, Russ
>
>

# 2454. Re: Facts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-19 21:05:47 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <419e5e30_1@127.0.0.1>
Source record: 86450

Reg Edwards wrote:
> Don't forget, as always happens, that when Zo is assumed to be purely
> resistive, as is always done, it automatically forces wire resistance loss
> to equal shunt conductance loss. You've lost a degree of freedom. Which
> has a considerable bearing on your arguments.

Reg, seems I learned back in the dark ages that if Z0 is assumed to
be purely resistive, it forces wire resistance loss to equal shunt
conductance loss - AND BOTH OF THEM ARE EQUAL TO ZERO, i.e. the
line is lossless.

Actually, the argument is not about lossless lines, but about lines
with an attenuation factor term. I'm assuming that when Z0 is not
purely resistive, the ratio of voltage to current still equals a
constant Z0. If the E-field is attenuated by series I^2*R losses,
the H-field will supply energy to the E-field in an amount that will
maintain the Z0 constant ratio. If the H-field is attenuated by shunt
I^2*R losses, the E-field will supply energy to the H-field in an
amount that will maintain the Z0 constant ratio. That's why the
attenuation factors are identical - there's simply no other alternative.
--
73, Cecil, W5DXP

# 2455. Re: I passed

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-19 21:47:15 UTC
From: Ron <ab4ua@sc.rr.com>
Message-ID: <DRtnd.7240$DE1.677479@twister.southeast.rr.com>
Source record: 86451

Congratulations KG6TDX

Ron AB4UA Summerville, SC

"Shadow_998" <hrd998cc@yahoo.nospam.com> wrote in message
news:GQfnd.46278$QJ3.16653@newssvr21.news.prodigy.com...
>I just wanted to say to this group: I am now KG6TDX/AG
>
> I posted this to the antenna group because this is where I have posted
> most
> of my amateur radio questions over the past year (and have gotten the best
> answers as well!)
>
> I hope to catch some of you on HF soon.
>
> 73, Russ
>
>

# 2456. Re: I passed

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-19 22:19:04 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <419e6f5d$1_2@127.0.0.1>
Source record: 86453

Shadow_998 wrote:
> I am now KG6TDX/AG

Congratulations and I hope you have less trouble with the
'DX' in your call than I have. If you have my experience,
CW operators will respond to KG6T calling for 'DX'. :-)
It was even worse when I was KG7BK. All the CW operators
ever heard was 'BK'. They would send

-.- --. --... ..--..

and I would send

-.- --. --... -... -.-

and they would send

-.- --. --... ..--..

ad infinitum ... :-)
--
73, Cecil, W5DXP

# 2457. Re: Facts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-19 22:55:49 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <VRund.937484$Gx4.931499@bgtnsc04-news.ops.worldnet.att.net>
Source record: 86454

Cecil,

I am curious how you separate "reality" from the "math model". I have never directly measured the properties of open-wire transmission lines located in the vacuum of free space. Have you?

How do you know that "reality" is correct and the "math model" is wrong?

The second paragraph is even more curious. Do you have a reference for this migration of energy from the H-field to supply the suffering E-field? I must have missed that day in class.

73,
Gene
W4SZ

Cecil Moore wrote:

> Distributed shunt resistive losses would imply dielectric losses
> which certainly exist but are minimum at HF. We could even assume
> a worst case open-wire transmission line made from resistance wire
> and located in the vacuum of free space. There doesn't seem to be
> any valid way to justify asserting that shunt losses exactly equal
> series losses in every possible transmission line at every possible
> frequency under every possible conditions. Asserting such is just
> an admission that one it trying to force reality to match the math
> model rather than vice versa.
>
> In a flat transmission line without reflections, if the E-field
> drops, the characteristic impedance of the transmission line
> forces energy to migrate from the H-field to the E-field, such
> that the constant V/I ratio remains equal to Z0. Thus, the H-field
> supplies energy to compensate for the losses in the E-field.
> --
> 73, Cecil, W5DXP

# 2458. Re: I passed

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-19 23:29:31 UTC
From: "Dee D. Flint" <deeflint01@comcast.net>
Message-ID: <Kq-dnZRpn9h9HAPcRVn-jA@comcast.com>
Source record: 86455

"Shadow_998" <hrd998cc@yahoo.nospam.com> wrote in message
news:GQfnd.46278$QJ3.16653@newssvr21.news.prodigy.com...
> I just wanted to say to this group: I am now KG6TDX/AG
>
> I posted this to the antenna group because this is where I have posted
most
> of my amateur radio questions over the past year (and have gotten the best
> answers as well!)
>
> I hope to catch some of you on HF soon.
>
> 73, Russ
>
>

Congrats. You should have a lot of fun putting together an HF station. Let
us know how it goes and of course we'll be here to answer questions.

Dee D. Flint, N8UZE

# 2459. Re: Single ground

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-19 23:31:45 UTC
From: Gary Schafer <gaschafer@comcast.net>
Message-ID: <ci0tp0tvq9464iroses7t981thdnec2dp7@4ax.com>
Source record: 86458

On Fri, 19 Nov 2004 07:44:50 -0500, "Floyd Sense" <fsense@copper.net>
wrote:

>
>"Jack Painter" <223bthp@cox.net> wrote in message
>news:zbbnd.1127$wa1.571@lakeread04...
><<snip>>
>> The coax shields grounded at the tower (min. at the bottom, best top and
>> bottom), and again at the basement entrance single point ground. Shields
>> must be grounded before connection to an arrestor.
>>
>
>Jack - regarding your comment on grounding the shields BEFORE connection to
>an arrestor: My arrestors are mounted on the common ground panel and the
>coax is grounded via the coax connector to those arrestors. What is the
>reason for a separate ground prior to that one. Maybe I misunderstood
>something, but it seems redundant to have a separate ground a few inches
>from that one.
>
>In response to another's comments regarding protection of the SteppIR,
>rotor, and other control lines: I use MOVs and .01 bypass caps on all those
>lines in a box at the base of the tower and have another set of the same at
>the entry panel box. Those components are mounted via European-style screw
>terminal strips (12 positions per strip) obtained from Jameco via the Web.
>Much cheaper than the same from Radio Shack or other sources. MOVs came
>from Mouser. A lightning strike last year entered my shack via relay
>control lines which were unprotected at that time. Hopefully, the new
>arrangement will help.
>
>73, Floyd - K8AC
>
>

Floyd,

The real reason for grounding the coax shield at the entrance panel in
addition to having the protection device grounded is the voltage drop
between the connector and the coax line. The cable to connector
connection is usually not a good low resistance - high current joint
as far as lightning is considered. During a lightning strike you may
have considerable voltage drop across that junction.
Sometimes connectors are found to have been welded to the cable or
their threads welded due to lightning strikes because of the poor
connection at the connector. Other times the junction may get burned
open.

It can also melt the solder quickly in a soldered on connector which would provide for an immediately poor connection.
However, lots of people do not do the extra grounding of the cable at that point. Most are lucky if they get some sort of protection device installed and a ground connected.

As Jack mentioned grounding the cable "at the bottom of the tower like is used nation wide in tower designs" is ideal. But unfortunately that is not how it usually gets done. Often the lines come off the tower at 6 to 10 feet above the ground to go to the building in a cable tray. But it would indeed be best if they were taken all the way to ground level before exiting the tower.

The reason being that during a strike the tower and associated lines on it develop considerable voltage drop due to the high current being conducted. Coming off the tower above ground is like taping a resistor part way up from the ground end. Allowing more voltage to exit on the lines rather than the potential at the base of the tower where it is closer to ground. The tower usually has considerable inductance for voltage to develop across.

Ideally lines should be grounded to the tower not only at the top and bottom but at distances along the tower length as well. This is to avoid flashovers that may puncture the line.

Lightning protection schemes are all about voltage drop. Most due to inductance of the tower or other conductors carrying the current. All conductors will have inductance and resistance and therefore voltage drop if they are asked to carry lightning current. Keeping things out of the middle of that path is the trick.

73
Gary K4FMX

# 2460. Re: I passed

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-19 23:32:18 UTC
From: John Smith <kd5yikes@mindspring.com>
Message-ID: <6ovnd.170$uV6.44@newsread3.news.pas.earthlink.net>
Source record: 86456

"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:419e6f5d$1_2@127.0.0.1...
> Shadow_998 wrote:
>> I am now KG6TDX/AG
>
> Congratulations and I hope you have less trouble with the
> 'DX' in your call than I have. If you have my experience,
> CW operators will respond to KG6T calling for 'DX'. :-)
> It was even worse when I was KG7BK. All the CW operators
> ever heard was 'BK'. They would send
>
> -.- --. --... ..--..
>
> and I would send
>
> -.- --. --... -... -.-
>
> and they would send
>
> -.- --. --... ..--..
>
> ad infinitum ... :-)
> --
> 73, Cecil, W5DXP

That's a hoot!

Welcome to the club, KG6TDX - Russ.

John
KD5YI

# 2461. Re: Facts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-19 23:32:20 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cnlvq3$5ta$1@sparta.btinternet.com>
Source record: 86457

"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:419e5e30_1@127.0.0.1...
> Reg Edwards wrote:
> > Don't forget, as always happens, that when Zo is assumed to be purely
> > resistive, as is always done, it automatically forces wire resistance
loss
> > to equal shunt conductance loss. You've lost a degree of freedom.
Which
> > has a considerable bearing on your arguments.
>
> Reg, seems I learned back in the dark ages that if Z0 is assumed to
> be purely resistive, it forces wire resistance loss to equal shunt
> conductance loss - AND BOTH OF THEM ARE EQUAL TO ZERO, i.e. the
> line is lossless.
>
> Actually, the argument is not about lossless lines, but about lines
> with an attenuation factor term. I'm assuming that when Z0 is not
> purely resistive, the ratio of voltage to current still equals a
> constant Z0. If the E-field is attenuated by series I^2*R losses,
> the H-field will supply energy to the E-field in an amount that will
> maintain the Z0 constant ratio. If the H-field is attenuated by shunt
> I^2*R losses, the E-field will supply energy to the H-field in an
> amount that will maintain the Z0 constant ratio. That's why the
> attenuation factors are identical - there's simply no other alternative.
> --
> 73, Cecil, W5DXP

==========

Dear Cec,

You ought to have more sense than try to argue with ME about transmission
lines. You had better return to the dark-ages before Heaviside and start
again from square one.

If I say, when Zo is made purely resistive, that Series Resistance and Shunt
Conductance losses automatically become equal to each other even when
NEITHER is zero, then I really do mean "When Zo is made purely resistive,
Series Resistance and Shunt Conductance losses automatically become equal to
each other even when NEITHER is zero."

So your argument, whatever it is, falls as flat as a pancake on Good Friday.
;o) ;o)
----
Reg

## 2462. Re: Facts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-19 23:45:35 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cnm0iv$s9k$1@hercules.btinternet.com>
Source record: 86459

Cec, it's Worship of the Great Smith Chart which has led you astray. My warnings have been disregarded. ;o)
---
Reg.

# 2463. Re: Facts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-19 23:59:01 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <419e86ca$1_1@127.0.0.1>
Source record: 86460

Gene Fuller wrote:
> How do you know that "reality" is correct and the "math model" is wrong?

With a ridiculous question like that, I rest my case! Reality is
*always* correct. If the math model disagrees with reality, it is
simply wrong! Do you really think that what happens only in your
mind is reality? As my Mother once said, "If that's what you think,
think again!"

Example: The 19th century math model didn't explain the orbit of
Mercury. Do you think you can control the orbit of Mercury in
your mind? I suppose in your world, you really can do that.

> The second paragraph is even more curious. Do you have a reference for
> this migration of energy from the H-field to supply the suffering
> E-field? I must have missed that day in class.

You were probably out with a cold that day in kindergarten. It's
called "conservation of energy". If the ratio of the E-field to
the H-field is a constant, any change in either one will result
in a change in the other. This is a well known and accepted fact
of physics in the field of optics. How did you miss it? Hint: What
happens to isotropic radiation in 3D space? Both the E-field and
H-field decrease in value per square meter and THEIR RATIO STAYS
EXACTLY THE SAME.

FYI, the characteristic impedance or index of refraction forces the
ratio of the E-field to the H-field to a constant value. When a
forward wave in a 50 ohm transmission line encounters a 50 ohm
to 300 ohm impedance discontinuity, the ratio of the voltage to
current in the forward wave changes from 50 to 300. I'm extremely
surprised that you don't know and don't accept that fact of physics.
--
73, Cecil, W5DXP

# 2464. Re: Facts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-20 00:14:53 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <ds2tp0h4m15ldb0p3gslutneuubo1ugvu9@4ax.com>
Source record: 86461

On Fri, 19 Nov 2004 17:59:01 -0600, Cecil Moore <w5dxp@hotmail.com>
wrote:
>I suppose in your world, you really can do that.
21st Century math doesn't explain the orbit of pluto, but 28th century
math will....

# 2465. Re: Facts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-20 00:16:11 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <419e8ad0$1_3@127.0.0.1>
Source record: 86462

Reg Edwards wrote:
> So your argument, whatever it is, falls as flat as a pancake on Good Friday.

I am assuming lossy lines, where R >> G, as is typical of transmission lines used at HF frequencies. So exactly where does my argument fall flat?

Actually, it seems that it is your argument that is falling flat as R is rarely, if ever, equal to G at HF frequencies. Where would we ever obtain such a terrible dielectric at HF that G would be equal to R? Maybe 9913 filled with water?
--
73, Cecil, W5DXP

# 2466. Re: Facts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-20 00:17:59 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <419e8b3d$1_3@127.0.0.1>
Source record: 86463

Reg Edwards wrote:
> Cec, it's Worship of the Great Smith Chart which has led you astray. My
> warnings have been disregarded. ;o)

Reg, I can't conceive of a transmission line so terrible at
HF as to have R=G. Did you have 9913 filled with water in mind?
--
73, Cecil, W5DXP

# 2467. Re: I passed

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-20 00:35:56 UTC
From: TBA <TBA@GOODOLEUSOFA.COM>
Message-ID: <Amwnd.11196$Ae.9767@newsread1.dllstx09.us.to.verio.net>
Source record: 86465

Congrats to you... Enjoy!

TBA

"Topaz305RK" <k7sam@arrl.net> wrote in message
news:Zu2dnRwdVILfDAPcRVn-pQ@vnet-inc.com...
> Good-on-ya!
>
> Hope to meet you on the air sometime.
>
>
> --
> K7SAM
> Transmitting from Navajo, MT
> Center of the known Universe
>
>

# 2468. Re: I passed

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-20 00:36:27 UTC
From: Topaz305RK <k7sam@arrl.net>
Message-ID: <Zu2dnRwdVILfDAPcRVn-pQ@vnet-inc.com>
Source record: 86464

Good-on-ya!

Hope to meet you on the air sometime.

--
K7SAM
Transmitting from Navajo, MT
Center of the known Universe

# 2469. Re: Facts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-20 01:03:45 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cnm55h$c77$1@titan.btinternet.com>
Source record: 86466

"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:419e5e30_1@127.0.0.1...
> Reg Edwards wrote:
> > Don't forget, as always happens, that when Zo is assumed to be purely
> > resistive, as is always done, it automatically forces wire resistance
loss
> > to equal shunt conductance loss. You've lost a degree of freedom.
Which
> > has a considerable bearing on your arguments.
>
> Reg, seems I learned back in the dark ages that if Z0 is assumed to
> be purely resistive, it forces wire resistance loss to equal shunt
> conductance loss - AND BOTH OF THEM ARE EQUAL TO ZERO, i.e. the
> line is lossless.
>
> Actually, the argument is not about lossless lines, but about lines
> with an attenuation factor term. I'm assuming that when Z0 is not
> purely resistive, the ratio of voltage to current still equals a
> constant Z0. If the E-field is attenuated by series I^2*R losses,
> the H-field will supply energy to the E-field in an amount that will
> maintain the Z0 constant ratio. If the H-field is attenuated by shunt
> I^2*R losses, the E-field will supply energy to the H-field in an
> amount that will maintain the Z0 constant ratio. That's why the
> attenuation factors are identical - there's simply no other alternative.
> --
> 73, Cecil, W5DXP

==========

Cec, I assume you know the simple formula for Zo from R,L,G,C.

Write it down. It will then be obvious, to make the angle of Zo equal to
zero it is necessary only that the angle of R+j*Omega*L be made equal to the
angle of G+j*Omega*C.

Or even more simple, for Zo to be purely resistive, G = C*R/L

If R and G exist, as they always do, then the line cannot be lossless.
----
Regards, Reg.

# 2470. 4NEC2 under Linux Wine

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-20 01:47:28 UTC
From: Bob Bob <bcnntp@optusnet.com.au>
Message-ID: <gak272-dbk.ln1@p400bob.lse.com.au>
Source record: 86467

Kind of partly off topic....

Has anyone been able to get 4NEC2 under Wine? (Window emulator under Linux) If so any pointers? (I get Run-time error 5 - Invalid proecure or call)

Cheers Bob Vk2YQA

# 2471. Re: I passed

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-20 02:23:55 UTC
From: phoneguy99 <phoneguy99unspam@unspamsympatico.ca>
Message-ID: <4Uxnd.36503$rc.2122151@news20.bellglobal.com>
Source record: 86468

KG6TDX/AG DE VE3PMK

FB OM!

## 2472. random wire antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-20 02:46:59 UTC
From: whru@msn.com
Message-ID: <e52bdeaf.0411191846.14901df5@posting.google.com>
Source record: 86469

Hi all,
I installed a random wire antenna of about 80 ft. Inside the shack I would like to run coax to the outside and connect it to the wire. The question is now what kind of matching transformer (UNUN) do I need to get a good match.
Thanks for any answers.

Fred
wb6iiq

# 2473. Re: 75 OHM hardline on VHF and UHF

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-20 02:47:38 UTC
From: Allodoxaphobia <bit-bucket@config.com>
Message-ID: <slrncptc2a.k81.bit-bucket@shell.config.com>
Source record: 86470

On Fri, 29 Oct 2004 03:55:35 GMT, W2RAC hath writ:
> I am trying to see if I can use some surplus 1/2 inch hardline
> "feeder" for my 2m ssb loops and 440 sat antenna.
> So far I can use my ssb loops from 144 to 145.4 under 2 to 1 swr.
> And again from 146.5 to 148 as well. Keeping the Resistance at about
> 50 Ohms. The antenna SWR is 1.7 to 1 without the hardline.
>
> Anyone else using CATV hardline for above HF freq.

http://jonz.net/W3DHJ/catvhardline.html

73
Jonesy
--
| Marvin L Jones | jonz | W3DHJ | linux
| Gunnison, Colorado | @ | Jonesy | OS/2 __
| 7,703' -- 2,345m | config.com | DM68mn SK

# 2474. Re: Facts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-20 03:04:45 UTC
From: Tom Ring <news0000@taring.org>
Message-ID: <419eb44e$0$91007$39cecf19@news.twtelecom.net>
Source record: 86471

Richard Clark wrote:
> On Fri, 19 Nov 2004 17:59:01 -0600, Cecil Moore <w5dxp@hotmail.com>
> wrote:
>
>>I suppose in your world, you really can do that.
>
> 21st Century math doesn't explain the orbit of pluto, but 28th century
> math will....

We have all the math we need to handle Pluto's orbit, and have had for a century. We do not, however, know all the bits out there that may perturb it. That said, we can still predict it quite well enough for anyone's current needs.

tom
K0TAR

# 2475. Re: I passed

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-20 03:11:21 UTC
From: Tom Ring <news0000@taring.org>
Message-ID: <419eb5d9$0$91007$39cecf19@news.twtelecom.net>
Source record: 86372

Shadow_998 wrote:

> I just wanted to say to this group: I am now KG6TDX/AG
>
> I posted this to the antenna group because this is where I have posted most
> of my amateur radio questions over the past year (and have gotten the best
> answers as well!)
>
> I hope to catch some of you on HF soon.
>
> 73, Russ
>
>

Congratulations. What part of 6 land are you in?

tom
K0TAR

# 2476. Re: Facts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-20 03:34:24 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <419eb944$1_4@127.0.0.1>
Source record: 86373

Reg Edwards wrote:
> Cec, I assume you know the simple formula for Zo from R,L,G,C.
>
> Write it down. It will then be obvious, to make the angle of Zo equal to
> zero it is necessary only that the angle of R+j*Omega*L be made equal to the
> angle of G+j*Omega*C.
>
> Or even more simple, for Zo to be purely resistive, G = C*R/L
>
> If R and G exist, as they always do, then the line cannot be lossless.

No argument, Reg. Nothing you said contradicts anything I said.
--
73, Cecil, W5DXP

# 2477. Re: Facts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-20 03:54:11 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <27ftp0lri5uaf44kig2ji56890v1hob1uk@4ax.com>
Source record: 86374

On Fri, 19 Nov 2004 21:04:45 -0600, Tom Ring <news0000@taring.org>
wrote:
>That said, we can still predict it quite well enough for
>anyone's current needs.

Hi Tom,

Exactly, but you were responding to a dry comment on the nature of
"reality vs. models" which was absurd from the get-go.

To say that reality drives models or vice-versa (especially from
armchair theorists) is naive in the extreme. Anyone's "knowledge" of
reality is simply its own corrupt model and not any particular state
of enlightenment. The naive part is in not knowing the errors
bounding this "knowledge."

Barring revolution, anarchy, social upset or the rest, futurity will
tend generally to more resolution in the answer and a finer reduction
of error, but it will never be fully resolved because the answer could
not be encompassed by the mind.

73's
Richard Clark, KB7QHC

# 2478. Re: random wire antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-20 03:57:27 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <hrftp05gg594dmbh09c6381domlruu8rpg@4ax.com>
Source record: 86375

On 19 Nov 2004 18:46:59 -0800, whru@msn.com (Fred) wrote:
>The question is now what kind of matching transformer (UNUN)
>do I need to get a good match.

Hi Fred,

You are shy of a lot of information necessary to respond to your
particular needs. So to answer what is left:
1:1 Current BalUn
Tuner

73's
Richard Clark, KB7QHC

# 2479. Re: Facts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-20 04:00:51 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <Tjznd.38781$7i4.26520@bgtnsc05-news.ops.worldnet.att.net>
Source record: 86376

Cecil,

You nicely ducked the question, again.

This is not about philosophy, existentialism, the meaning of life, planetary orbits, or any other such fluff.

Again, how do you know the "reality" for your transmission line in free space?

This is a straightforward question. Do you have data? Do you have a reference that you consider reality? Are you basing your reality on a model? Is it just a matter of blind faith? Something else?

You have many times made similar remarks about us "stupid folks" who get misled by math models. How do you get your information?

As for the E- and H-fields, this just gets more amusing by the minute.

73,
Gene
W4SZ

Cecil Moore wrote:
> Gene Fuller wrote:
>
>> How do you know that "reality" is correct and the "math model" is wrong?
>
>
> With a ridiculous question like that, I rest my case! Reality is
> *always* correct. If the math model disagrees with reality, it is
> simply wrong! Do you really think that what happens only in your
> mind is reality? As my Mother once said, "If that's what you think,
> think again!"
>
> Example: The 19th century math model didn't explain the orbit of
> Mercury. Do you think you can control the orbit of Mercury in
> your mind? I suppose in your world, you really can do that.
>
>> The second paragraph is even more curious. Do you have a reference for
>> this migration of energy from the H-field to supply the suffering
>> E-field? I must have missed that day in class.
>
>
> You were probably out with a cold that day in kindergarten. It's
> called "conservation of energy". If the ratio of the E-field to
> the H-field is a constant, any change in either one will result

> in a change in the other. This is a well known and accepted fact
> of physics in the field of optics. How did you miss it? Hint: What
> happens to isotropic radiation in 3D space? Both the E-field and
> H-field decrease in value per square meter and THEIR RATIO STAYS
> EXACTLY THE SAME.
>
> FYI, the characteristic impedance or index of refraction forces the
> ratio of the E-field to the H-field to a constant value. When a
> forward wave in a 50 ohm transmission line encounters a 50 ohm
> to 300 ohm impedance discontinuity, the ratio of the voltage to
> current in the forward wave changes from 50 to 300. I'm extremely
> surprised that you don't know and don't accept that fact of physics.
> --
> 73, Cecil, W5DXP

## 2480. What's the best Source of Info On Rhombics?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-20 04:23:16 UTC
From: mailfrmpa@aol.com
Message-ID: <20041119232316.06541.00000650@mb-m24.aol.com>
Source record: 86377

What book/mag article would you recommend as the best "how to " source of info on rhombics for the low bands? The comming cold dark nights put me in a mind for dreaming of big antennas. For bedtime reading I don't want a lot of formulas, just nuts and bolts info

K0MB

# 2481. Re: Facts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-20 04:29:34 UTC
From: Tom Ring <news0000@taring.org>
Message-ID: <419ec82e$0$74192$39cecf19@news.twtelecom.net>
Source record: 86378

Richard Clark wrote:

> On Fri, 19 Nov 2004 21:04:45 -0600, Tom Ring <news0000@taring.org>
> wrote:
>
>>That said, we can still predict it quite well enough for
>>anyone's current needs.
>
>
> Hi Tom,
>
> Exactly, but you were responding to a dry comment on the nature of
> "reality vs. models" which was absurd from the get-go.
>
> To say that reality drives models or vice-versa (especially from
> armchair theorists) is naive in the extreme. Anyone's "knowledge" of
> reality is simply its own corrupt model and not any particular state
> of enlightenment. The naive part is in not knowing the errors
> bounding this "knowledge."
>
> Barring revolution, anarchy, social upset or the rest, futurity will
> tend generally to more resolution in the answer and a finer reduction
> of error, but it will never be fully resolved because the answer could
> not be encompassed by the mind.
>
> 73's
> Richard Clark, KB7QHC

Including revolution, anarchy, social upset or the rest, the minds will encompass everything to the finest resolution, because they will be the ones we built to surpass us. Unless we destroy ourselves first, it is inevitable.

tom
K0TAR

# 2482. Re: random wire antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-20 04:35:16 UTC
From: Jack Painter <223bthp@cox.net>
Message-ID: <bQznd.885$D26.633@lakeread03>
Source record: 86379

"Richard Clark" <kb7qhc@comcast.net> wrote
> whru@msn.com (Fred) wrote:
> >The question is now what kind of matching transformer (UNUN)
> >do I need to get a good match.
>
> Hi Fred,
>
> You are shy of a lot of information necessary to respond to your
> particular needs. So to answer what is left:
> 1:1 Current BalUn
> Tuner

Adding to Richard's comments, many antenna tuners have a built-in 4:1 Balun in them, some only make this available on certain settings. A 4:1 Balun at the feedpoint of a 70-80' random wire will typically match very easily (on a tuner of course) from 160 meters through 40 meters or above. You can additionally, mount the Balun on the top 12" of an 8' ground rod, and ground one of the two Balun outputs to the ground rod, connecting the other to the wire as a feed. This is one of my very effective antennas, and quiet even in a highly populated area. Industrial Communication Engineers (ICE) also makes a nice matching device with adjustable impedance setpoints where their Balun is automatically grounded and provides lightning protection as well. That device is however for receive-only.

Jack Painter
Virginia Beach VA

# 2483. Re: Facts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-20 04:41:18 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <419ec8f3$1_1@127.0.0.1>
Source record: 86380

Reg Edwards wrote:
> Write it down. It will then be obvious, to make the angle of Zo equal to
> zero it is necessary only that the angle of R+j*Omega*L be made equal to the
> angle of G+j*Omega*C.

Reg, there is no contradiction between what I have said and what you have said.

Continuing the discussion - For average transmission lines used on HF
frequencies, "... the value of G ... is likely to be too small to affect the
attenuation factor ..." Quote from "Transmission Lines" by Chipman, page 94.

Some of Chipman's calculations indicate that, for a typical 10 MHz example,
R is about 0.1 ohm/meter while G is about 0.9 micromhos/meter. That's about
a 100,000:1 ratio making G negligible as far as attenuation factor goes.

The attenuation factor depends almost entirely on R, the series resistance
parameter. G, the parallel conductance parameter, has a negligible effect
on the attenuation factor at HF.

Since, at HF, the attenuation factor consists almost entirely of series
resistance, and since the attenuation factor is identical for voltage and
current, it logically follows that the series resistance is primarily
responsible for the attenuation of the current.

> Or even more simple, for Zo to be purely resistive, G = C*R/L

Actually, that is only an approximation for low-loss lines.
--
73, Cecil, W5DXP

## 2484. Re: What's the best Source of Info On Rhombics?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-20 04:43:10 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <419ec962$1_1@127.0.0.1>
Source record: 86381

MailfrmPA wrote:
> What book/mag article would you recommend as the best "how to " source of info
> on rhombics for the low bands?

The ARRL Antenna Book is a good start.
--
73, Cecil, W5DXP

## 2485. Re: Facts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-20 04:44:55 UTC
From: David Ryeburn <ryeburn@sfu.caz>
Message-ID: <ryeburn-81C235.20445519112004@morgoth.sfu.ca>
Source record: 86382

In article <419e8ad0$1_3@127.0.0.1>, Cecil Moore <w5dxp@hotmail.com>
wrote:

> I am assuming lossy lines, where R >> G, as is typical of transmission
> lines used at HF frequencies. So exactly where does my argument fall flat?

If R is measured in ohms and G is measured in siemans (or mhos) how can
you say one of them is much larger than the other?

David

--
David Ryeburn
ryeburn@sfu.caz
To send e-mail, use "ca" instead of "caz".

# 2486. Re: Facts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-20 05:02:17 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <419ecddd$1_5@127.0.0.1>
Source record: 86383

Gene Fuller wrote:
> Again, how do you know the "reality" for your transmission line in free
> space?

Simple, we know the characteristics of copper wire and we know the
dielectric properties of a vacuum. Examples abound in textbooks.

> This is a straightforward question. Do you have data?

Of course, don't you? If not, maybe you had better get some.

> You have many times made similar remarks about us "stupid folks" who get
> misled by math models. How do you get your information?

The distributed network model was developed because the circuit model
failed in systems that are an appreciable portion of a wavelength. I'm
surprised that you don't have that information.

> As for the E- and H-fields, this just gets more amusing by the minute.

The attenuation factor for the average transmission line at HF is almost
entirely due to the resistance in the conductors as the shunt conductance
is usually negligible. Resistance in the conductors causes a voltage drop.
Yet, we know that the current is attenuated by exactly the same percentage
as the voltage. Since G is negligible, R must be responsible for the
decrease in current. What laws of physics can account for that fact?

Z0 determines the ratio of HF voltage to HF current. Therefore, if the
voltage drops and the V/I ratio stays constant, energy must be transferred
from the H-field to the E-field. That's pretty simple stuff, Gene, maybe
sophomore level.
--
73, Cecil, W5DXP

# 2487. Re: Facts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-20 05:18:30 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <419ed1aa$1_4@127.0.0.1>
Source record: 86384

David Ryeburn wrote:
> If R is measured in ohms and G is measured in siemans (or mhos) how can
> you say one of them is much larger than the other?

Sorry, I should have said (effect of R) >> (effect of G)
on the losses. Or 0.1 ohms/meter in series has a greater
effect than 1/(0.9 micromhos/meter) in parallel. That's
about 7 magnitudes difference based on an example in
"Transmission Lines" by Chipman.
--
73, Cecil, W5DXP

# 2488. Re: Facts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-20 05:44:01 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <419ed7a5$1_1@127.0.0.1>
Source record: 86385

Reg Edwards wrote:
> Or even more simple, for Zo to be purely resistive, G = C*R/L

In "Transmission Lines" by Chipman, he gives an example where R = 0.1 ohm/m and G = 0.9 micromhos/m. For Z0 to be a purely resistive 50 ohms, G would have to be 40 micromhos/m making the transmission line considerably more lossy just to achieve a purely resistive Z0. Real world transmission lines rarely have a purely resistive characteristic impedance.

The formula for the attenuation factor is R/2*Z0 + G*Z0/2
That's 0.001 + 0.0000225, so you can see that G has negligible effect on losses, i.e. virtually all losses in the above example are series I^2*R losses.

The attenuation factor is 0.0010225 for both the voltage and current so it's obvious that the current attenuation is caused by the series I^2*R losses, the same thing that causes the voltage attenuation.
--
73, Cecil, W5DXP

# 2489. Re: Facts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-20 05:48:22 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <419ed8aa$1_2@127.0.0.1>
Source record: 86386

David Ryeburn wrote:

> Cecil Moore <w5dxp@hotmail.com> wrote:
>>I am assuming lossy lines, where R >> G, as is typical of transmission
>>lines used at HF frequencies. So exactly where does my argument fall flat?
>
> If R is measured in ohms and G is measured in siemans (or mhos) how can
> you say one of them is much larger than the other?

Sorry, should have said, "... where R/Z0 >> G*Z0, as is typical of
transmission lines used at HF frequencies."
--
73, Cecil, W5DXP

## 2490. Re: Facts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-20 06:06:18 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cnmmsp$q11$1@titan.btinternet.com>
Source record: 86387

> If R is measured in ohms and G is measured in siemans (or mhos) how can
> you say one of them is much larger than the other?
>
==========

Its easy for Cecil. He doesn't have the slightest trouble.

# 2491. Re: Facts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-20 06:15:22 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <mqntp0tai8o05li8qhi3iv8nq4eukngus@4ax.com>
Source record: 86388

On Fri, 19 Nov 2004 23:48:22 -0600, Cecil Moore <w5dxp@hotmail.com>
wrote:
>>>I am assuming lossy lines, where R >> G, as is typical of transmission
>>how can you say one of them is much larger than the other?
>Sorry, should have said, "... where R/Z0 >> G*Z0
just a matter of Z0ï¿½ ... no big deal
perhaps it shoulda been Rï¿½ Z0ï¿½ >>>> G ;-)

# 2492. Re: 4NEC2 under Linux Wine

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-20 13:59:14 UTC
From: Frank <ve6cb@NOSPAM.telus.net>
Message-ID: <S4Ind.1298$y72.603@clgrps12>
Source record: 86389

"Bob Bob" <bcnntp@optusnet.com.au> wrote in message
news:gak272-dbk.ln1@p400bob.lse.com.au...
> Kind of partly off topic....
>
> Has anyone been able to get 4NEC2 under Wine? (Window emulator under
> Linux) If so any pointers? (I get Run-time error 5 - Invalid proecure or
> call)
>
> Cheers Bob Vk2YQA

Hi Bob, are you familiar with http://www.si-list.org/swindex2.html ? There is a link on this site for Linux executable NEC2 source code, which I believe has been translated from FORTRAN to C. Will not help you with the Windows emulator, but it seems you will be able to run NEC2 at least.

Regards,

Frank
(VE6CB)

# 2493. Re: I passed

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-20 15:40:52 UTC
From: Shadow_998 <hrd998cc@yahoo.nospam.com>
Message-ID: <8AJnd.20128$zx1.9915@newssvr13.news.prodigy.com>
Source record: 86390

Great stuff, Cecil!
You raise and intersting point. I had not considered my call as confusing
but am wondering what my CQ's will generate in responses.

I am sorting out some radio issue here and hope to be sending on HF very
soon.

Thanks.

Russ KG6TDX

I have not made any contacts on cw yet other than the few I have set up in
advance with another local ham on 2 meters. I was planning on working HF
this weekend, but my Icom 706 G is not transmitting on the HF
bands--scratching my head...

"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:419e6f5d$1_2@127.0.0.1...
> Shadow_998 wrote:
> > I am now KG6TDX/AG
>
> Congratulations and I hope you have less trouble with the
> 'DX' in your call than I have. If you have my experience,
> CW operators will respond to KG6T calling for 'DX'. :-)
> It was even worse when I was KG7BK. All the CW operators
> ever heard was 'BK'. They would send
>
> -.- --. --... ..--..
>
> and I would send
>
> -.- --. --... -... -.-
>
> and they would send
>
> -.- --. --... ..--..
>
> ad infinitum ... :-)
> --
> 73, Cecil, W5DXP

# 2494. Re: I passed

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-20 15:51:49 UTC
From: Shadow_998 <hrd998cc@yahoo.nospam.com>
Message-ID: <pKJnd.20131$zx1.13956@newssvr13.news.prodigy.com>
Source record: 86391

Dee,
I do have a preliminary HF station set up, but my 706 G is not transmitting on HF for some reason. My 80-meter dipole is tuned to flat SWR but no luck. I bought the radio new last January and have never transmitted on HF (obviously). The last time I used 6-meters, it worked fine. It may be warranty time...

I have other old radios in the closet: Johnson Valiant, Heathkit DX 40 and RME 4350 receiver, but these need some tech time before putting them on the air.

Thanks for the congrats! I feel like an 8 year old kid with a brand new bicycle!

Russ KG6TDX

> Congrats. You should have a lot of fun putting together an HF station. Let
> us know how it goes and of course we'll be here to answer questions.
>
> Dee D. Flint, N8UZE
>

# 2495. Re: Facts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-20 16:03:46 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <419f68e5$1_2@127.0.0.1>
Source record: 86393

Reg Edwards wrote:
>>If R is measured in ohms and G is measured in siemans (or mhos) how can
>>you say one of them is much larger than the other?

> Its easy for Cecil. He doesn't have the slightest trouble.

Just forgot to render them both dimensionless with the Z0
term. I suspect you knew what I meant anyway. :-)
--
73, Cecil, W5DXP

## 2496. Re: I passed

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-20 16:06:55 UTC
From: Shadow_998 <hrd998cc@yahoo.nospam.com>
Message-ID: <zYJnd.20135$zx1.15271@newssvr13.news.prodigy.com>
Source record: 86392

Tom, Thanks for the congrats. I am about 25 miles East of Sacramento in the Sierra Nevada foothills. The town (so to speak) is "Latrobe" which is really just a wide spot in the road! No stoplights, either. ;-)

Russ KG6TDX

"Tom Ring" <news0000@taring.org> wrote in message news:419eb5d9$0$91007$39cecf19@news.twtelecom.net...
> Shadow_998 wrote:
>
> > I just wanted to say to this group: I am now KG6TDX/AG
> >
> > I posted this to the antenna group because this is where I have posted most
> > of my amateur radio questions over the past year (and have gotten the best
> > answers as well!)
> >
> > I hope to catch some of you on HF soon.
> >
> > 73, Russ
> >
> >
>
> Congratulations. What part of 6 land are you in?
>
> tom
> K0TAR

# 2497. Re: random wire antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-20 16:13:31 UTC
From: Jesus <a@teleline.es>
Message-ID: <L2Knd.3801720$A6.11752111@telenews.teleline.es>
Source record: 86394

Hello:

Transceiver---- coax 50 ohms ------ balum 9:1 ------- randon wire of 42 meters long

It is an efective antenna to 3,5 to 50 Mhz.

Transceiver----- Match --------- coax 50 ohms ---------- balum 9:1 ------- random wire.

Bye.

Jesus.

"Fred" <whru@msn.com> escribi&#65533; en el mensaje news:e52bdeaf.0411191846.14901df5@posting.google.com...
> Hi all,
> I installed a random wire antenna of about 80 ft. Inside the shack I
> would like to run coax to the outside and connect it to the wire. The
> question is now what kind of matching transformer (UNUN) do I need to
> get a good match.
> Thanks for any answers.
>
> Fred
> wb6iiq

# 2498. Re: Facts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-20 16:26:00 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <419f6e1c$1_5@127.0.0.1>
Source record: 86395

Gene Fuller wrote:
> As for the E- and H-fields, this just gets more amusing by the minute.
>>> The second paragraph is even more curious. Do you have a reference
>>> for this migration of energy from the H-field to supply the suffering
>>> E-field?

Here's the reference: From "Fields and Waves" by Ramo and Whinnery.
Take a close look at the exponential transmission line equations
for flat lines (no reflections):

V = Vmax(e^-az)(e^wt-bz) (1)

I = Vmax(e^-az)(e^wt-bz)/Z0 (2)

'a' (alpha) is the attenuation factor. The two equations are identical
except for the Z0 term. If you divide equation (1) by equation (2),
you get Z0. In a flat transmission line (no reflections) the current
is ALWAYS equal to the voltage divided by the characteristic impedance
of the transmission line. The voltage and current are attenuated by
EXACTLY the same factor. If the voltage drops because of I^2*R losses,
the current must decrease by exactly the same percentage. (I have avoided
calling it a current drop so it wouldn't upset you.)

Since the attenuation factor is R/2*Z0 + G*Z0/2 and since, for most
transmission lines used on HF, R/2*Z0 >> G*Z0/2, the current attenuation
is caused by the series I^2*R drop in the voltage and the V/I=Z0 ratio
that must be maintained - pretty simple logic.

>>> I must have missed that day in class.

Yep, you must have. But it's not too late to learn what you missed
that day. :-)
--
73, Cecil, W5DXP

## 2499. Re: Facts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-20 16:49:59 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <XAKnd.942545$Gx4.814849@bgtnsc04-news.ops.worldnet.att.net>
Source record: 86396

Cecil,

Nice try.

I cannot find the word "migrate" in your reference. However, I do find
several examples of your own interpretations mixed in.

When in doubt, change the subject?

More rattlesnake physics?

73,
Gene
W4SZ

Cecil Moore wrote:
> Gene Fuller wrote:
>
>> As for the E- and H-fields, this just gets more amusing by the minute.
>>
>>>> The second paragraph is even more curious. Do you have a reference
>>>> for this migration of energy from the H-field to supply the
>>>> suffering E-field?
>
>
> Here's the reference: From "Fields and Waves" by Ramo and Whinnery.
> Take a close look at the exponential transmission line equations
> for flat lines (no reflections):
>
> V = Vmax(e^-az)(e^wt-bz) (1)
>
> I = Vmax(e^-az)(e^wt-bz)/Z0 (2)
>
> 'a' (alpha) is the attenuation factor. The two equations are identical
> except for the Z0 term. If you divide equation (1) by equation (2),
> you get Z0. In a flat transmission line (no reflections) the current
> is ALWAYS equal to the voltage divided by the characteristic impedance
> of the transmission line. The voltage and current are attenuated by
> EXACTLY the same factor. If the voltage drops because of I^2*R losses,
> the current must decrease by exactly the same percentage. (I have avoided
> calling it a current drop so it wouldn't upset you.)
>
> Since the attenuation factor is R/2*Z0 + G*Z0/2 and since, for most
> transmission lines used on HF, R/2*Z0 >> G*Z0/2, the current attenuation
> is caused by the series I^2*R drop in the voltage and the V/I=Z0 ratio
> that must be maintained - pretty simple logic.

>
>>>> I must have missed that day in class.
>
>
> Yep, you must have. But it's not too late to learn what you missed
> that day. :-)
> --
> 73, Cecil, W5DXP

# 2500. Re: Facts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-20 17:30:39 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <419f7d43$1_2@127.0.0.1>
Source record: 86397

Gene Fuller wrote:
> I cannot find the word "migrate" in your reference. However, I do find
> several examples of your own interpretations mixed in.

You expect me to remember the exact wording after 40 years?
Perhaps your prof, like mine, told you to skip sections 1.22-
1.28 in Ramo and Whinnery. I didn't take his advice - I read
them.

So Gene, please point out the error in my logic. If the
current attenuation is primarily from R, the series
resistance, what other explanation can there be than
energy is being supplied by the H-field to the sagging
E-field? Can you think of any other rational, logical,
non-emotional, technical explanation, given these
exponential transmission line equations?

V = Vmax(e^-az)*e^j(wt-bz)

I = Vmax(e^-az)*e^j(wt-bz)/Z0

V/I = Z0

(I think you are just trying to punish me for saying my
dog has a soul. :-)
--
73, Cecil, W5DXP

# 2501. Re: I passed

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-20 19:39:15 UTC
From: "Dee D. Flint" <deeflint01@comcast.net>
Message-ID: <itWdnTyZnpfwAALcRVn-gA@comcast.com>
Source record: 86398

"Shadow_998" <hrd998cc@yahoo.nospam.com> wrote in message
news:pKJnd.20131$zx1.13956@newssvr13.news.prodigy.com...
> Dee,
> I do have a preliminary HF station set up, but my 706 G is not
transmitting
> on HF for some reason. My 80-meter dipole is tuned to flat SWR but no
luck.
> I bought the radio new last January and have never transmitted on HF
> (obviously). The last time I used 6-meters, it worked fine. It may be
> warranty time...
>
> I have other old radios in the closet: Johnson Valiant, Heathkit DX 40
and
> RME 4350 receiver, but these need some tech time before putting them on
the
> air.
>
> Thanks for the congrats! I feel like an 8 year old kid with a brand new
> bicycle!
>
> Russ KG6TDX

See if you can get a more experienced ham to come over and help you. It could simply be that you don't have something set right. We all pulled that stunt a time or two or dozen. I've been a ham for 12 years (Extra class) and just this past Field Day I sat down to take my turn at the radio, switched to CW, and nothing happened when I tried to transmit. It turns out that I forgot to set the radio for break-in keying. My only excuse was that I wasn't used to that radio but I should have checked.

Dee D. Flint, N8UZE

# 2502. Re: random wire antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-20 19:54:07 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cno7cv$etm$1@hercules.btinternet.com>
Source record: 86399

I accidentally found your discussion. Having nothing else better to do I thought I would make the following remarks -

The 9:1 balun on a 'long wire', on the average, has no effect on what you call the antenna 'effectiveness'. On receive, you may find the signal strength marginally better at some random frequencies and marginally worse at other random frequencies.

4:1 baluns have a similar negligible effect at different sets of random frequencies with a very slightly smaller overall loss over the whole wide band from MF to HF.

You may just as well omit a balun altogether. Omission of a balun means zero balun loss. But loss in a balun is negligible anyway. It just means there is nothing to be gained by fitting one.

Baluns can be useful in particular frequency bands. But if you are interested in particular bands then a very simple tuned antenna, a coil or capacitor, or changing antenna length, is much to be preferred.

Baluns in a receiving application are beneficial only to the bank-balances of balun manufacturers and salesmen. In other words, don't waste you hard-earned money!

(PS: The supposed 600-ohm Zo of a random length of wire has very little to do with it. Concentrate on the exact particular antenna length. Please send me the money you save.)

And forgive me for the interruption.
----
Reg , G4FGQ

# 2503. Re: 4NEC2 under Linux Wine

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-20 20:29:57 UTC
From: Bob Bob <bcnntp@optusnet.com.au>
Message-ID: <63m472-99o.ln1@p400bob.lse.com.au>
Source record: 86400

Hi Frank

Actually I like the GUI interface <grin>

At one stage I was looking at the MMANA code under Linux. The GUI worked
well but the later wine versions spat the dummy at running the DOS box
executable. Was considering using the Linux based code from the site you
mentioned..

Tnxs for your comments though..

Cheers Bob

Frank wrote:
> "Bob Bob" <bcnntp@optusnet.com.au> wrote in message
> news:gak272-dbk.ln1@p400bob.lse.com.au...
>
>>Kind of partly off topic....
>>
>>Has anyone been able to get 4NEC2 under Wine? (Window emulator under
>>Linux) If so any pointers? (I get Run-time error 5 - Invalid proecure or
>>call)
>>
>>Cheers Bob Vk2YQA
>
>
> Hi Bob, are you familiar with http://www.si-list.org/swindex2.html ? There
> is a link on this site for Linux executable NEC2 source code, which I
> believe has been translated from FORTRAN to C. Will not help you with the
> Windows emulator, but it seems you will be able to run NEC2 at least.
>
> Regards,
>
> Frank
> (VE6CB)
>
>

# 2504. Re: random wire antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-20 21:28:54 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cnocum$lg5$1@hercules.btinternet.com>
Source record: 86401

> The supposed 600-ohm Zo of a random length of wire has very little to
> do with it.
==========

Depending on length, height and wire diameter, Zo can vary between 450 and 650 ohms or thereabouts. What's yours?

Then what balun ratio would the guru's and old wives recommend? And to confuse even further, receivers can have an input impedance anywhere between 50 and 1000 ohms.

Some tuned receivers have an indeterminate input impedance. Who needs a balun?
----
Reg , G4FGQ

# 2505. Re: random wire antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-20 22:07:35 UTC
From: Howard <mensch90249@yahoo.com>
Message-ID: <idfvp0pm5er1867k89dh2bvcdr04c2rm4t@4ax.com>
Source record: 86402

On Sat, 20 Nov 2004 21:28:54 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>> The supposed 600-ohm Zo of a random length of wire has very little to
>> do with it.
>==============================
>
>Depending on length, height and wire diameter, Zo can vary between 450 and
>650 ohms or thereabouts. What's yours?
>
>Then what balun ratio would the guru's and old wives recommend? And to
>confuse even further, receivers can have an input impedance anywhere between
>50 and 1000 ohms.
>
>Some tuned receivers have an indeterminate input impedance. Who needs a
>balun?
>----
>Reg , G4FGQ
>
Well Reg need and want are two different things. Perhaps my inverted
L didn't 'need' a balun, however after installing an ICE-182A
DC-Isolated matching transformer (balun if you will) I had a
noticeable reduction in noise. The difference is real and as a result
I have a better S/N ratio that makes listening less fatiguing. Now
here's the $64,000 question ........."Was the difference due to
impedance matching, the DC isolation or did a previously un-noticed
loose ground get fixed when I put the ICE unit in-line?"

Howard

# 2506. Re: random wire antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-20 22:54:56 UTC
From: Jack Painter <223bthp@cox.net>
Message-ID: <4XPnd.8198$D26.7997@lakeread03>
Source record: 86403

"Howard" <mensch90249@yahoo.com> wrote
"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote:
>
> >> The supposed 600-ohm Zo of a random length of wire has very little to
> >> do with it.
> >==========
> >
> >Depending on length, height and wire diameter, Zo can vary between 450
and
> >650 ohms or thereabouts. What's yours?
> >
> >Then what balun ratio would the guru's and old wives recommend? And to
> >confuse even further, receivers can have an input impedance anywhere
between
> >50 and 1000 ohms.
> >
> >Some tuned receivers have an indeterminate input impedance. Who needs a
> >balun?
> >----
> >Reg , G4FGQ
> >
> Well Reg need and want are two different things. Perhaps my inverted
> L didn't 'need' a balun, however after installing an ICE-182A
> DC-Isolated matching transformer (balun if you will) I had a
> noticeable reduction in noise. The difference is real and as a result
> I have a better S/N ratio that makes listening less fatiguing. Now
> here's the $64,000 question ........."Was the difference due to
> impedance matching, the DC isolation or did a previously un-noticed
> loose ground get fixed when I put the ICE unit in-line?"
>
> Howard

You know Howard, it's mostly amateur radio operators who have read too much
and worked too little that make statements like "a balun for receiving is
just for the balun makers benefit". These hams have little idea how
hobbyists who have special interest in DX, especially utility, and have
tried and tested numerous receiver antenna systems over the years. As I said
earlier I too use ICE equipment on one receive-only antenna. I could care
less what a stuffed-shirt thinks that does for my receive ability, as I used
it first as a hobbyist and then professionally. It certainly does improves
my digital and analog signal reception. I have that Ice box impedance set to
favor the lower bands on the wire and it at times outperforms a matched
dipole in reception. The compromise is that I lose usefulness of that wire
much above 6 mhz,which is ok as it does it required job superfluously. Now

the 4:1 current-type balun use on another wire-set antenna provides quiet listening as well as excellent transmit abilities from 2182 Khz through 11000 Khz. And of course I use a 1:1 current-balun on a long dipole. Would I "have" to? Of course not. Does it improve the antennas abilities in listening as well as transmit? You bet it does. Do what works for you and God help anyone who argues with that.

Jack Painter
Virginia Beach VA

# 2507. Re: 4NEC2 under Linux Wine

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-21 00:44:46 UTC
From: Frank <ve6cb@NOSPAM.telus.net>
Message-ID: <2yRnd.9201$l65.4597@clgrps13>
Source record: 86404

Hi Bob, I guessed you would have been familiar with that site, but thought I would mention it just in case. I have never used 4NEC2, but understand it is just like real NEC2 where you enter data on the NEC "Cards". Most of the time I use NEC-Win Pro, which is very easy to use, and you also have full access to all the cards. It also has the Sommerfeld/Norton feature built in.

Regards,

Frank

"Bob Bob" <bcnntp@optusnet.com.au> wrote in message
news:63m472-99o.ln1@p400bob.lse.com.au...
> Hi Frank
>
> Actually I like the GUI interface <grin>
>
> At one stage I was looking at the MMANA code under Linux. The GUI worked
> well but the later wine versions spat the dummy at running the DOS box
> executable. Was considering using the Linux based code from the site you
> mentioned..
>
> Tnxs for your comments though..
>
> Cheers Bob
>
> Frank wrote:
>> "Bob Bob" <bcnntp@optusnet.com.au> wrote in message
>> news:gak272-dbk.ln1@p400bob.lse.com.au...
>>
>>>Kind of partly off topic....
>>>
>>>Has anyone been able to get 4NEC2 under Wine? (Window emulator under
>>>Linux) If so any pointers? (I get Run-time error 5 - Invalid proecure or
>>>call)
>>>
>>>Cheers Bob Vk2YQA
>>
>>
>> Hi Bob, are you familiar with http://www.si-list.org/swindex2.html ?
>> There is a link on this site for Linux executable NEC2 source code, which
>> I believe has been translated from FORTRAN to C. Will not help you with
>> the Windows emulator, but it seems you will be able to run NEC2 at least.
>>
>> Regards,

>>
>> Frank
>> (VE6CB)
>>

# 2508. Re: Single ground

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-21 01:59:12 UTC
From: kelly@dvol.com
Message-ID: <d22b54c3.0411201759.5657b91b@posting.google.com>
Source record: 86405

Gary Schafer <gaschafer@comcast.net> wrote in message
news:<ci0tp0tvq9464iroses7t981thdnec2dp7@4ax.com>...
> On Fri, 19 Nov 2004 07:44:50 -0500, "Floyd Sense" <fsense@copper.net>

> As Jack mentioned grounding the cable "at the bottom of the tower like
> is used nation wide in tower designs" is ideal. But unfortunately that
> is not how it usually gets done. Often the lines come off the tower at
> 6 to 10 feet above the ground to go to the building in a cable tray.
> But it would indeed be best if they were taken all the way to ground
> level before exiting the tower.
>
> The reason being that during a strike the tower and associated lines
> on it develop considerable voltage drop due to the high current being
> conducted. Coming off the tower above ground is like taping a resistor
> part way up from the ground end. Allowing more voltage to exit on the
> lines rather than the potential at the base of the tower where it is
> closer to ground. The tower usually has considerable inductance for
> voltage to develop across.

I'm one of those who pulls the coax off the tower at around eight feet
and hangs it on a carrier wire from the tower to the outside wall near
the shack. In the past I've had end insulators at both ends of the
carrier wire. Your point about grounding the coax at the base of the
tower is well taken but is obviously not possible in these situations.
It occurs to me that the same effect can be accomplished by connecting
a #6 or #8 solid wire between the the coax shields where they bend
away from the tower and the base of the tower. Yes?

Taking it a bit further it also occurs to me that the carrier wire
could be connected to the base of the tower at the point where the
tower connects to the ground rods there, then up the tower and
connected to both the coax shields at the eight foot level and the
tower again. Then horizontally to the house wall with the coax, then
down to the ground rods just outside the shack to which the equipment
is also grounded. I'd also connect the coax shields to the carrier
wire again at the point where they turn away from the wire and go
through the wall. One hefty continuous, unbroken length of copper
wire. There would still be voltage differentials involved because
there is no escape from the inductances BUT . . . is my thinking in
the right direction here?

> 73
> Gary K4FMX

w3rv

# 2509. Re: New Program - Coaxial Choke

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-21 02:23:44 UTC
From: kelly@dvol.com
Message-ID: <d22b54c3.0411201823.7b8d3c96@posting.google.com>
Source record: 86406

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:<cne0jv$2iv$1@hercules.btinternet.com>...
> New program SELFRES2.exe
> -------------------------------------
> Input data :
>
> Length and diameter of solenoid.
> Number of turns.
> Conductor diameter
> Length of line in which the coil is inserted.
> Testing frequency.
>
> Output data :
>
> Coil self-capacitance.
> Coil self-resonant frequency.
> Choke impedance vs frequency.
> Insertion loss of choke in dB.
>
> Performance is based on a choke wound with coaxial cable of the same type as
> the transmission transmission line in which it is inserted. Conductor
> diameter is that of the coax outer. It behaves a single wire. Coax inner
> diameter is of no consequence.
>
> Choke insertion loss is a measure of the reduction in power radiated from
> the feedline. But, despite the attention it attracts, actual power radiated
> from the feedline WITH the choke will never be known because the power
> radiated WITHOUT the choke is indeterminate.
>
> SELFRES2 is 51 K-bytes. Download from website below in a few seconds. It is
> not zipped-up and will run immediately.
> ----
> ..........................................................
> Regards from Reg, G4FGQ
> For Free Radio Design Software go to
> http://www.btinternet.com/~g4fgq.regp
> ..........................................................

Wunnerful! another gem from The Reg. I took the revised version out
for a couple test drives and it's very nice. As usual.

However I have an ongoing problem of a very practical nature involving
how to "wind" a true solenoid from coaxial cable. Turns out that at
the moment I'm pondering how to build as lightweight as possible
chokes made from RG-58 coax for 30, 20 and 2M dipoles. Does anybody

around here know how to fabricate a proper coax solenoid without having to resort to some beastly heavy coil form like PVC pipe? How do ya wind one which holds its shape out in the WX without a coil form? Is there some magic goop out there which can bond the turns together or what?

w3rv

# 2510. Re: Single ground

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-21 04:01:20 UTC
From: Gary Schafer <gaschafer@comcast.net>
Message-ID: <f830q0l5g3ms89dr2ff3bsc0eq24s3gmfb@4ax.com>
Source record: 86407

On 20 Nov 2004 17:59:12 -0800, kelly@dvol.com (Brian Kelly) wrote:

>Gary Schafer <gaschafer@comcast.net> wrote in message
news:<ci0tp0tvq9464iroses7t981thdnec2dp7@4ax.com>...
>> On Fri, 19 Nov 2004 07:44:50 -0500, "Floyd Sense" <fsense@copper.net>
>
>
>> As Jack mentioned grounding the cable "at the bottom of the tower like
>> is used nation wide in tower designs" is ideal. But unfortunately that
>> is not how it usually gets done. Often the lines come off the tower at
>> 6 to 10 feet above the ground to go to the building in a cable tray.
>> But it would indeed be best if they were taken all the way to ground
>> level before exiting the tower.
>>
>> The reason being that during a strike the tower and associated lines
>> on it develop considerable voltage drop due to the high current being
>> conducted. Coming off the tower above ground is like taping a resistor
>> part way up from the ground end. Allowing more voltage to exit on the
>> lines rather than the potential at the base of the tower where it is
>> closer to ground. The tower usually has considerable inductance for
>> voltage to develop across.
>
>I'm one of those who pulls the coax off the tower at around eight feet
>and hangs it on a carrier wire from the tower to the outside wall near
>the shack.

Theref are many installations like yours in existance. It was the
"common way" to do it some years ago. Not the best though.

>In the past I've had end insulators at both ends of the
>carrier wire. Your point about grounding the coax at the base of the
>tower is well taken but is obviously not possible in these situations.
>It occurs to me that the same effect can be accomplished by connecting
>a #6 or #8 solid wire between the the coax shields where they bend
>away from the tower and the base of the tower. Yes?

No that won't do much good. If you ground the coax shield to the tower
where it bends away from the tower you will have a much better (lower
inductance) to ground with the tower than what the wire would provide.
The wire would do almost no good at all when compared to the much
larger tower in parallel.

>
>Taking it a bit further it also occurs to me that the carrier wire
>could be connected to the base of the tower at the point where the
>tower connects to the ground rods there, then up the tower and

>connected to both the coax shields at the eight foot level and the
>tower again.

Same as above. Grounding the carrier to the tower will do much more
than a wire to the ground rods at the tower. The carrier wire should
not be insulated from the tower. It and the coax should both be
grounded to the tower at the exit point. Otherwise you can have
flashover's to the carrier.

>Then horizontally to the house wall with the coax, then
>down to the ground rods just outside the shack to which the equipment
>is also grounded. I'd also connect the coax shields to the carrier
>wire again at the point where they turn away from the wire and go
>through the wall. One hefty continuous, unbroken length of copper
>wire. There would still be voltage differentials involved because
>there is no escape from the inductances BUT . . . is my thinking in
>the right direction here?

Connecting the carrier wire to the coax again at the house is a good
idea for the same reason you should connect it at the tower. to
prevent flashovers to the cables. The same situation exist on the
tower itself with lines running down. That is why they should be
grounded to the tower at several points. Especially on a tall tower.

The tower has inductance just like any piece of wire has. Although the
tower inductance is less than just a length of wire it still has
inductance. When lightning strikes the top, the tower and lines all
share the current to ground. The farther up from ground you are the
higher the voltage will be with respect to ground. It can be
significant. Especially on a smaller tower. Leaving the tower only a
few feet above ground with your coax line is putting that line at some
point above ground that can have high voltage.

The best way is to run the lines all the way to the bottom of the
tower, ground them there, and then run underground to the house to
your ground rods. Don't forget to also run a ground lead from your
house ground to your tower ground system too. Bury it along with the
cables. That will give you more contact with the earth as well as
tying the grounds together.

73
Gary K4FMX
>
>
>> 73
>> Gary K4FMX
>
>w3rv

## 2511. Re: random wire antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-21 04:17:51 UTC
From: Dave VanHorn <dvanhorn@cedar.net>
Message-ID: <8b6dnaIRn99_iz3cRVn-pQ@comcast.com>
Source record: 86408

Decoupling reduces the noise (rf current) traveling on the shield of the coax, both to, and from your shack, which would otherwise get pretty much direct coupled to your antenna.

# 2512. Re: I passed

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-21 12:09:32 UTC
From: kelly@dvol.com
Message-ID: <d22b54c3.0411210409.3f6039d4@posting.google.com>
Source record: 86409

Cecil Moore <w5dxp@hotmail.com> wrote in message news:<419e6f5d$1_2@127.0.0.1>...
> Shadow_998 wrote:
> > I am now KG6TDX/AG
>
> Congratulations and I hope you have less trouble with the
> 'DX' in your call than I have. If you have my experience,
> CW operators will respond to KG6T calling for 'DX'. :-)
> It was even worse when I was KG7BK. All the CW operators
> ever heard was 'BK'. They would send
>
> -.- --. --... ..--..
>
> and I would send
>
> -.- --. --... -... -.-
>
> and they would send
>
> -.- --. --... ..--..
>
> ad infinitum ... :-)

Back when the opportunity came up to swap my original 1x3 callsign in
for my 1x2 W3BK which are my initials was available and my local buds
were all over me to grab it. But there was no way I was about to
voluntairily become "W3 BREAK".

w3rv

## 2513. 2meter jpole question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-21 12:12:34 UTC
From: Moskog <romma@online.no>
Message-ID: <LA%nd.8910$rh1.229117@news2.e.nsc.no>
Source record: 86410

I just made a 2m jpole antenna out of 1/2" copper pipes, like this one:

http://www.qsl.net/wrav/2mjpole.htm

On this web site the center conductor of the coax is connected to the longest pipe and the shield to the shortest.

Now looking at other sites I find the center conductor connected the the shortest pipe.

So what is the correct way to connect the coax?

Kjell Romma, Norway

## 2514. Re: 2meter jpole question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-21 12:44:53 UTC
From: ON5MJ <my_call_sign@skynet.be>
Message-ID: <41a08cd1$0$26396$ba620e4c@news.skynet.be>
Source record: 86411

The best would be to install a lambda/2 balun, so there will be no problem anymore. I did it many years ago. Great results.

Described in ARRL antenna book 17th edition page 26-10. probably also in more recent releases.

73 de ON5MJ - Jacques.

# 2515. Re: random wire antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-21 12:59:15 UTC
From: "J.Hoekstra" <fam-j.hoekstra@zonnet.nl>
Message-ID: <3b213$41a09156$513b9fcf$10521@news1.zonnet.nl>
Source record: 86412

Hello,
you should try the Magnetic Line Balun (MLB).
It is a ferrite (not powderiron) core with a 9to1 ratio.
Take three wires, twist them and turn them around a ferritering.
Set them in series.
The lower winding to the (t)rx het high to the wire.
It simply works fine on the receiver and with a trx with a tuner.

"Dave VanHorn" <dvanhorn@cedar.net> schreef in bericht
news:8b6dnaIRn99_iz3cRVn-pQ@comcast.com...
>
> Decoupling reduces the noise (rf current) traveling on the shield of the
> coax, both to, and from your shack, which would otherwise get pretty much
> direct coupled to your antenna.
>
>

## 2516. Re: I passed

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-21 13:00:33 UTC
From: "J.Hoekstra" <fam-j.hoekstra@zonnet.nl>
Message-ID: <7488e$41a091a3$513b9fcf$10884@news1.zonnet.nl>
Source record: 86413

```
congratulations, i hope to work you once.
PE1AEQ Johan
"Ron" <ab4ua@sc.rr.com> schreef in bericht
news:DRtnd.7240$DE1.677479@twister.southeast.rr.com...
> Congratulations KG6TDX
>
> Ron AB4UA Summerville, SC
>
>
> "Shadow_998" <hrd998cc@yahoo.nospam.com> wrote in message
> news:GQfnd.46278$QJ3.16653@newssvr21.news.prodigy.com...
> >I just wanted to say to this group: I am now KG6TDX/AG
> >
> > I posted this to the antenna group because this is where I have posted
> > most
> > of my amateur radio questions over the past year (and have gotten the
best
> > answers as well!)
> >
> > I hope to catch some of you on HF soon.
> >
> > 73, Russ
> >
> >
>
>
```

# 2517. Re: 2meter jpole question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-21 13:08:45 UTC
From: Scott <acepilot@bloomer.net>
Message-ID: <qbqdnVwgNf3EDz3cRVn-jg@bright.net>
Source record: 86414

My 2M "Copper Cactus" J-Pole has the coax center conductor going to the
short pipe...

Scott
N0EDV

Moskog wrote:
> I just made a 2m jpole antenna out of 1/2" copper pipes, like this one:
>
> http://www.qsl.net/wrav/2mjpole.htm
>
> On this web site the center conductor of the coax is connected to the
> longest pipe and the shield to the shortest.
>
> Now looking at other sites I find the center conductor connected the the
> shortest pipe.
>
> So what is the correct way to connect the coax?
>
> Kjell Romma, Norway
>
>

# 2518. Home brew antenna for FCC Part 15 screening?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-21 13:45:35 UTC
From: bsd_mike@hotmail.com
Message-ID: <b2809f59.0411210545.4bb1b571@posting.google.com>
Source record: 86415

I know this is not exactly the group to post in, but I thought
radio amateurs would have the best ideas for making one's own
antenna. I apologize if this question bothers anybody.

I just spent $800 at an EMC test lab to screen my device for
part 15 compliance. The used a Biconical antenna and a spectrum
analyzer to measure emissions from my device. I was wondering
how inexpensively I could I make my own system for screening?

How hard would it be to make half way decent antenna or antennas that
could listen to a broad spectrum?

Any websites out there have tips on making antennas?

Thanks a lot for your help.
-Mike Dorin

# 2519. Re: 2meter jpole question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-21 14:22:11 UTC
From: Bob Miller <rmiller47@satx.rr.com>
Message-ID: <nq81q0ds0saaphgni0jk5n5nh5oscvuhk4@4ax.com>
Source record: 86416

On Sun, 21 Nov 2004 13:12:34 +0100, "Moskog" <romma@online.no> wrote:

>I just made a 2m jpole antenna out of 1/2" copper pipes, like this one:
>
>http://www.qsl.net/wrav/2mjpole.htm
>
>On this web site the center conductor of the coax is connected to the
>longest pipe and the shield to the shortest.
>
>Now looking at other sites I find the center conductor connected the the
>shortest pipe.
>
>So what is the correct way to connect the coax?
>
>Kjell Romma, Norway
>

My year 2000 ARRL handbook has instructions for a copper pipe 2-meter
j-pole, and the author says it doesn't matter which pipe you connect
the center conductor to. (He does mention a coax choke: 3 turns of
coax in an 8-inch coil, held together with tape.)

bob
k5qwg

# 2520. Re: 2meter jpole question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-21 14:52:49 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41a0a9c3$1_1@127.0.0.1>
Source record: 86417

Moskog wrote:
> I just made a 2m jpole antenna out of 1/2" copper pipes, like this one:
>
> http://www.qsl.net/wrav/2mjpole.htm
>
> On this web site the center conductor of the coax is connected to the
> longest pipe and the shield to the shortest.
>
> Now looking at other sites I find the center conductor connected the the
> shortest pipe.
>
> So what is the correct way to connect the coax?

Theoretically, it doesn't matter. The bottom 1/4WL of a J-Pole is
simply 1/4 wavelength of a balanced feedline similar to the original
Zepp antenna. I would install a choke on the feedline, however, to
try to keep the feedline from being part of the antenna.

As a point of interest, what is the feedpoint impedance of a 2m
J-Pole if the short is removed at the bottom and the antenna is
fed at that point, aka the original Zepp antenna? Is that like
the Arrow Antenna's J-Pole design?
--
73, Cecil, http://www.qsl.net/s5dxp

# 2521. Re: 2meter jpole question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-21 14:56:01 UTC
From: raiar@bbs.galilei.com.nospam
Message-ID: <41a0ab8d.423580578@news.galilei.com>
Source record: 86418

Hi Kjell

Electrically it doesn't matter, because a J-Pole consists of a 1/2 wave antenna sitting on top of a 1/4 wave matching section. Mechanically, one leg of the matching section is integral with the antenna to save the cost of a fitting.

However, in real life, connecting the center conductor to the stub lowers the receive noise level of the antenna slightly without affecting performance.
Albeit, placing three 1/16th wave wires extending from the top cap, sorta like a capacity hat, will do the same thing.

TTUL
Gary

# 2522. LOGPERIO.XLS Antenna calculating EXCEL spreadsheet.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-21 15:32:04 UTC
From: Helmut Wabnig <**********>
Message-ID: <aoc1q0t92enr5c4f4gti6ntk2oj82b6b95@4ax.com>
Source record: 86419

Hi,
LOGPERIO.XLS
everybody knows that famous spreadsheet,
I added some features, made some changes,
added some information, added a graphic to view results,
all for my own private use, work is unfinished, no progress,
no idea when I shall proceed to make it nice and neat.
You may want to download from here:

http://members.aon.at/hwabnig/LogperioNew.zip

w.

## 2523. Cobra UltraLite Multi-band Antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-21 15:39:31 UTC
From: Bert Craig <wa2si@optonline.netNOSPAM>
Message-ID: <TE2od.29379$hc5.17952404@news4.srv.hcvlny.cv.net>
Source record: 86420

Opinions please. :-)

http://www.k1jek.com/

It got pretty rave reviews on eHam.

http://www.eham.net/reviews/detail/3798?ehamsid=fed2189f1d2aed5d839a7885c56da2cc

--
Vy 73 de Bert
WA2SI
FISTS #9384
QRP ARCI #11782

# 2524. Re: Would a Johnson Ranger Transmitter make a good CB transmitter?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-21 15:55:36 UTC
From: Steveo <moparholic@hotmail-nospam.com>
Message-ID: <20041121105536.967$Zm@newsreader.com>
Source record: 86421
Cross-posted to: rec.radio.cb,alt.dogie.is.an.idiot,rec.radio.amateur.policy,alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna

N8WWM DOUG ADAIR - keyklonzrnutjobs@yahoo.com (Psychiatrist to keyclowns)
wrote:
> idxeleven@aol.com (Idxeleven) wrote in message
> news:<20041120144742.08116.00001028@mb-m05.aol.com>...
> > >Cbers are clueless redneck assclown's stuck with ancient technology.
> >
> > Most hams nowdays are appliance operators,and cant even figure out how
> > to wire a microphone to a radio,many are even confused by pl-259's,
> > lol...MN102USA
>
> And since hippie freak retard truck drivers are even dumber, you are
> obviously a candiddate for turn it on and key the mike type radios.
> Maybe an Archer micro Space Patrol would be good for you
>
Hey fugly felon, do you still have your SECRET CB modification info?

http://tinyurl.com/5zonx

# 2525. Corrosive protection for ground radial plate?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-21 16:29:17 UTC
From: Jim Keller <jkeller@cox.net>
Message-ID: <kkf1q09beo04j38in4aqu2f4cev5gd42kv@4ax.com>
Source record: 86322

I have an HF9V vertical that uses about 36 radials. The radials are terminated at a square aluminum plate at the base of the antenna. I have about a dozen holes in the plate. The screws, washers and nuts to secure the ground wires to the plate are stainless steel. The lugs at the end of the ground wire are the type intended for house wiring. Maybe zinc coated over copper?

I would like to disassemble everything, clean it all up, then reassemble but this time using some type of protective coating on each connection to prevent moisture from getting in and disturbing conductivity to all connections to the plate.

Question is, what have others done to prevent antenna connections, such as ground radials from corrosion at their points of contact?

I've heard about Penetrox and was curious if it would work in this application.

I live about 5 miles from the Ocean and the vertical is located on a slope that gets watered at least once a week.

Thanks,

Jim Keller
WB6YXY
Oceanside, Ca.

# 2526. FS: Cushcraft Vertical HF MA5V

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-21 17:20:13 UTC
From: David Hawkins <res6mlv3@verizon.net>
Message-ID: <h74od.3834$0k1.2859@trnddc08>
Source record: 86323

Cushcraft Vertical HF MA5V
http://www.cushcraft.com/amateur/details.asp?catid=92

Bought new and installed a year ago. Nice antenna, works fine. Just didn't use it much. I took it down this weekend, and its all assembled and you will need a pickup truck with a long bed to haul away. They sell this item for $230 new.

Price: $100

Location: Plano Texas, near Hwy 75 and Parker Rd exit.

Call: 972-881-2997 or email.

Note: Only available to the Dallas Ft Worth metroplex areas. Cannot be shipped.

# 2527. Re: Cobra UltraLite Multi-band Antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-21 18:40:59 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <rg1vp01j8bfajue3p1b0jukh7h27k5grlo@4ax.com>
Source record: 86324

On Sun, 21 Nov 2004 15:39:31 GMT, "Bert Craig"
<wa2si@optonline.netNOSPAM> wrote:
>Opinions please.

Hi Bert,

When I read a testimonial like:
>In direct comparisons with a G5RV at the same height,
>I am constantly receiving 3 S-Units better when using the Cobra.
I have to wonder about the source.

$90 for zipcord?

Well, opinion aside, I modeled this (each arm is a single wire, folded back on itself twice) and when I tried to run a SWR sweep in EZNEC from 2MHz to 30MHz in 0.1MHz steps, EZNEC stalled and gave up.

I suppose this may have been due to warnings of wires being too close. As it was, I pulled the zip wires apart 1.2" (0.1'). EZNEC wanted a minimum 6". I tried again with 1MHz steps, and the full sweep drew a line across the top of the chart (max SWR). Hoping for more resolution, I tried with 0.2MHz steps, and EZNEC stalled again. Third time is charm (so the saying goes), and with 0.25MHz steps - it stalled again.

-sigh-

73's
Richard Clark, KB7QHC

# 2528. Re: 2meter jpole question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-21 19:11:09 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41a0e650$1_5@127.0.0.1>
Source record: 86325

Cecil Moore wrote:
> As a point of interest, what is the feedpoint impedance of a 2m
> J-Pole if the short is removed at the bottom and the antenna is
> fed at that point, aka the original Zepp antenna? Is that like
> the Arrow Antenna's J-Pole design?

Just measured the Arrow Antenna J-Pole and can report that it
*is* a Zepp design scaled for 2 meters. Here's the schematic:

```
Center
Conductor---------+
1/4WL + 1/2WL
Braid---------+--------------------
```

The center conductor and braid are usually reversed for a Zepp
but that really doesn't make a whole lot of difference. The Arrow
Antenna J-pole just uses an open stub instead of a shorted stub
like the average J-pole. The 1/4WL open stub transforms the very
high feedpoint impedance of the 1/2WL section down to a low
feedpoint impedance. The 1/4WL shorted stub of the average J-Pole
transforms the impedance from zero ohms at the short to thousands
of ohms at the base of the 1/2WL section. Somewhere in between
those two values lies the desired value of 50 ohms so the shorted
stub has to be tapped.

Actually, I think I like the Arrow Antenna version better for
homebrewing. The 3/4WL section is bolted to the base plate which
is easy. Then an SO-239 can be mounted on the base plate for attaching
the coax and a 1/4WL #14 solid wire can attached to the center of the
socket and be supported at the top by an insulator attached to the
3/4WL section. The Arrow Antenna version can be mostly aluminum while
the ordinary J-Pole, being 100% copper tubing, is relatively hard to
solder.
--
73, Cecil, http://www.qsl.net/w5dxp

# 2529. Re: Home brew antenna for FCC Part 15 screening?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-21 19:15:42 UTC
From: Bob Bob <bcnntp@optusnet.com.au>
Message-ID: <v36772-kfv.ln1@p400bob.lse.com.au>
Source record: 86326

Hi Mike

I would suggest that the problem isnt so much in finding a good antenna
but calibrating the entire system so that you can measure the absolute
signal strength.

That may also involve a screened room and something to dampen the
reflections inside it. Depends on the required accuracy.

But to answer your question, any broadband design would work. It would
be smart though to use something as low gain as possible to avoid
pointing errors. For your purposes it might be possible to use the one
piece of equipment you had measured, take its actual radiated signal and
use that as a relative measure against new equipment.

Lots of websites! My favourite is http://www.cebik.com/radio.html

Cheers Bob VK2YQA

Mike wrote:
> I know this is not exactly the group to post in, but I thought
> radio amateurs would have the best ideas for making one's own
> antenna. I apologize if this question bothers anybody.
>
> I just spent $800 at an EMC test lab to screen my device for
> part 15 compliance. The used a Biconical antenna and a spectrum
> analyzer to measure emissions from my device. I was wondering
> how inexpensively I could I make my own system for screening?
>
> How hard would it be to make half way decent antenna or antennas that
> could listen to a broad spectrum?
>
> Any websites out there have tips on making antennas?
>
> Thanks a lot for your help.
> -Mike Dorin

# 2530. Re: random wire antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-21 20:07:28 UTC
From: whru@msn.com
Message-ID: <e52bdeaf.0411211207.22a1b3c3@posting.google.com>
Source record: 86327

Dave,
this is exactly what I'm after. The RF in the shack it is causing all
kinds of problems. My TS50 is turning itself off, sprinklers turning
on etc.
Thanks
Fred
wb6iiq

# 2531. Re: random wire antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-21 20:31:52 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <tm9vp0pj36prjq4c9mtgim16n847qmjnu7@4ax.com>
Source record: 86328

On 21 Nov 2004 12:07:28 -0800, whru@msn.com (Fred) wrote:
>this is exactly what I'm after. The RF in the shack it is causing all
>kinds of problems. My TS50 is turning itself off, sprinklers turning
>on etc.

Hi Fred,

This is, really, a very common topic here. The praises heaped upon expensive "BalUns" comes at the cost for simple ferrite plus rather stiff prices added for advertising and the illusion of worth.

Simply take common garden variety ferrite cores and stack them up on a 12" length of RG-58. Very simple: one gozinta and one comesoutta. This alone will quiet noisy receivers, remove RF potentials on the case, cure rigs of instability; and make sprinklers and touch lamps settle down.

Consult the archives for 1:1 BalUns, ferrite chokes, et. al. to research the nuances of which ferrite you should use (or simply build the conventional coiled coax choke).

73's
Richard Clark, KB7QHC

## 2532. Re: Home brew antenna for FCC Part 15 screening?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-21 20:35:21 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <uaavp0924pb8chlac63op09jk1oj3fp23o@4ax.com>
Source record: 86329

On 21 Nov 2004 05:45:35 -0800, bsd_mike@hotmail.com (Mike) wrote:
>How hard would it be to make half way decent antenna or antennas that
>could listen to a broad spectrum?

Hi Mike,

That would be the cheapest part of your quest and it wouldn't come
close to a start. The investment is in the shielded room and its
equipment.

73's
Richard Clark, KB7QHC

## 2533. MUFF

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-21 20:50:48 UTC
From: willybe@isp.com
Message-ID: <1f9bb743.0411211250.40671ad8@posting.google.com>
Source record: 86330

For all those like me and cant read a muff map. download "ham cap "
by VE3NEA.. great little program if its in the red on the band you
want chances are you can talk to that area.

KD4PQF

# 2534. Re: MUFF

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-21 22:28:13 UTC
From: fractenna@aol.com
Message-ID: <20041121172813.21699.00000854@mb-m12.aol.com>
Source record: 86331

...'muff' map?!

Gimme a break. Can't it be called something else?

73,
Chip N1IR

# 2535. Re: random wire antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-21 22:35:29 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cnr57h$8g1$1@titan.btinternet.com>
Source record: 86332

> This is, really, a very common topic here. The praises heaped upon
> expensive "BalUns" comes at the cost for simple ferrite plus rather
> stiff prices added for advertising and the illusion of worth.
>
> Simply take common garden variety ferrite cores and stack them up on a
> 12" length of RG-58. Very simple: one gozinta and one comesoutta.
> This alone will quiet noisy receivers, remove RF potentials on the
> case, cure rigs of instability; and make sprinklers and touch lamps
> settle down.
>
> Consult the archives for 1:1 BalUns, ferrite chokes, et. al. to
> research the nuances of which ferrite you should use (or simply build
> the conventional coiled coax choke).
>
> 73's
> Richard Clark, KB7QHC

==========

- - - - and if your antenna or feedline is balanced, just get a ferrite ring, about 2" in diameter, and wind on it a dozen or so turns of 18 or 20 gauge, twin, stranded, flexible, Radio-Shack speaker cable.

Transmission loss is sensibly zero. Just keep length of cable on the ring less than 1/10 th of free-space wavelength at the highest frequency of interest to avoid sprurious responses.

It's about time great, heavy, hanks of coax were removed from the handbooks. Ferrites have been around for at least 50 years. But I suppose authors must have SOMETHING to write about. ;o)
---
Reg.

# 2536. Re: MUFF

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-21 23:22:03 UTC
From: CW <cmagers@earthlink.net>
Message-ID: <RvudnaYi1bRnvzzcRVn-sA@comcast.com>
Source record: 86333

Why?

"Fractenna" <fractenna@aol.com> wrote in message
news:20041121172813.21699.00000854@mb-m12.aol.com...
> ...'muff' map?!
>
> Gimme a break. Can't it be called something else?
>
> 73,
> Chip N1IR
>
>

# 2537. Re: Cobra UltraLite Multi-band Antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-21 23:24:45 UTC
From: Frank <ve6cb@NOSPAM.telus.net>
Message-ID: <1t9od.13573$l65.11399@clgrps13>
Source record: 86334

> Hi Bert,
>
> When I read a testimonial like:
>>In direct comparisons with a G5RV at the same height,
>>I am constantly receiving 3 S-Units better when using the Cobra.
> I have to wonder about the source.
>
> $90 for zipcord?
>
> Well, opinion aside, I modeled this (each arm is a single wire, folded
> back on itself twice) and when I tried to run a SWR sweep in EZNEC
> from 2MHz to 30MHz in 0.1MHz steps, EZNEC stalled and gave up.
>
> I suppose this may have been due to warnings of wires being too close.
> As it was, I pulled the zip wires apart 1.2" (0.1'). EZNEC wanted a
> minimum 6". I tried again with 1MHz steps, and the full sweep drew a
> line across the top of the chart (max SWR). Hoping for more
> resolution, I tried with 0.2MHz steps, and EZNEC stalled again. Third
> time is charm (so the saying goes), and with 0.25MHz steps - it
> stalled again.
>
> -sigh-
>
> 73's
> Richard Clark, KB7QHC

I agree with your comments about the testimonials. A piece of wire is a piece of wire.

Concerning NEC modeling; the segment lengths should be equal to the wire spacing. The wire diameter is also a factor to be considered. Anyway, to establish the validity of the segmentation, I model a parallel wire transmission line, and see if it is close to the expected impedance. The antenna appeared to use something similar to 300 Ohm ribbon, so half inch spacing is probably closer to the correct dimensions.

73,

Frank

# 2538. Re: random wire antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-21 23:38:17 UTC
From: CW <cmagers@earthlink.net>
Message-ID: <RtmdnR0nQslVuzzcRVn-jA@comcast.com>
Source record: 86335

Well Jack, I use one too. Yes, it makes a difference. No, you will not likely get anyone on a ham group to agree with you. It seems that the SWLs are not the only ones to do this. Drake builds them into their recievers. Why would a manufacturer include a non functional part?

"Jack Painter" <223bthp@cox.net> wrote in message news:4XPnd.8198$D26.7997@lakeread03...
>
> You know Howard, it's mostly amateur radio operators who have read too much
> and worked too little that make statements like "a balun for receiving is
> just for the balun makers benefit". These hams have little idea how
> hobbyists who have special interest in DX, especially utility, and have
> tried and tested numerous receiver antenna systems over the years. As I said
> earlier I too use ICE equipment on one receive-only antenna. I could care
> less what a stuffed-shirt thinks that does for my receive ability, as I used
> it first as a hobbyist and then professionally. It certainly does improves
> my digital and analog signal reception. I have that Ice box impedance set to
> favor the lower bands on the wire and it at times outperforms a matched
> dipole in reception. The compromise is that I lose usefulness of that wire
> much above 6 mhz,which is ok as it does it required job superfluously. Now
> the 4:1 current-type balun use on another wire-set antenna provides quiet
> listening as well as excellent transmit abilities from 2182 Khz through
> 11000 Khz. And of course I use a 1:1 current-balun on a long dipole. Would I
> "have" to? Of course not. Does it improve the antennas abilities in
> listening as well as transmit? You bet it does. Do what works for you and
> God help anyone who argues with that.
>
> Jack Painter
> Virginia Beach VA
>
>

## 2539. SAM 10

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-21 23:42:19 UTC
From: arrow146@aol.comjunk.com
Message-ID: <20041121184219.06431.00000540@mb-m26.aol.com>
Source record: 86336

How many skate wheels does it take to buff an antenna element ?

<A HREF="http://arrowantennas.com/sams/sam10.html">SAM 10</A> or
http://arrowantennas.com/sams/sam10.html

73 Al Lowe N0IMW Arrow Antenna
Arrow Antenna

# 2540. Re: Corrosive protection for ground radial plate?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-21 23:43:39 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <08h293CrgSoBFAqK@ifwtech.co.uk>
Source record: 86337

Jim Keller wrote:
>
>Question is, what have others done to prevent antenna connections, such
>as ground radials from corrosion at their points of contact?
>
With copper wires soldered to a copper pipe busbar, I used several coats
of clear polyurethane spray lacquer. Five years later, it looks like
new.

Anything that will keep the water out of the joint between the two
different metals will do fine. The advantage of clear lacquer is that
you can see what condition it's in without disturbing anything.

>I live about 5 miles from the Ocean and the vertical is located on a
>slope that gets watered at least once a week.
>
I live in England. The whole country gets watered, several times a week.

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

## 2541. Re: random wire antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-22 00:07:38 UTC
From: Dave VanHorn <dvanhorn@cedar.net>
Message-ID: <dY2dnfmyMc4osDzcRVn-qA@comcast.com>
Source record: 86338

A balun isn't primarily for this job, but it works here.
A balanced antenna plus a balun would be best.

There are those who say they can't tell any improvement with this, but that says to me that they have other and larger problems.

# 2542. Re: random wire antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-22 00:08:16 UTC
From: Jack Painter <223bthp@cox.net>
Message-ID: <R5aod.15230$D26.14248@lakeread03>
Source record: 86339

"CW" <cmagers@earthlink.net> wrote

> Well Jack, I use one too. Yes, it makes a difference. No, you will not
> likely get anyone on a ham group to agree with you. It seems that the SWLs
> are not the only ones to do this. Drake builds them into their recievers.
> Why would a manufacturer include a non functional part?

Hi C, I wish there was easy consensus on the subject, with comprehendible (to me) science behind why Baluns help. But in the end there is a general consensus of the unwashed, we non-phd's of radio engineering who desire the electrical isolation, control of feedline radiation when swr is a bit high, and agreed upon improvement in signal to noise ratio, which some argue theoretically cannot be accurate. For our distant worked stations or mobiles, we seem to have reason enough. I stopped trying to explain to the very friendly but rigid thinking folks at Radio Works (where my Baluns come from) - that I enjoy the configuration of a random wire end-fed with one-half the balun shorted to ground. "That cannot work" they tell me, yet not only did a real Doctor of Electrical Engineering release this noise-limiting design in an old issue of "Proceedings", but I have worked aircraft 3,000 miles away with reports of "loud and clear" (exactly how they sounded to me). It's one of the best antennas that doesn't work I ever had!

At least there have been friendly and interesting comments offered by all on this topic, and something to learn as the gurus weigh in ;-)

Jack

-end -

> "Jack Painter" <223bthp@cox.net> wrote in message
> news:4XPnd.8198$D26.7997@lakeread03...
> >
> > You know Howard, it's mostly amateur radio operators who have read too
> much
> > and worked too little that make statements like "a balun for receiving
is
> > just for the balun makers benefit". These hams have little idea how
> > hobbyists who have special interest in DX, especially utility, and have
> > tried and tested numerous receiver antenna systems over the years. As I
> said
> > earlier I too use ICE equipment on one receive-only antenna. I could
care
> > less what a stuffed-shirt thinks that does for my receive ability, as I
> used
> > it first as a hobbyist and then professionally. It certainly does
improves

> > my digital and analog signal reception. I have that Ice box impedance
set
> to
> > favor the lower bands on the wire and it at times outperforms a matched
> > dipole in reception. The compromise is that I lose usefulness of that
wire
> > much above 6 mhz,which is ok as it does it required job superfluously.
Now
> > the 4:1 current-type balun use on another wire-set antenna provides
quiet
> > listening as well as excellent transmit abilities from 2182 Khz through
> > 11000 Khz. And of course I use a 1:1 current-balun on a long dipole.
Would
> I
> > "have" to? Of course not. Does it improve the antennas abilities in
> > listening as well as transmit? You bet it does. Do what works for you
and
> > God help anyone who argues with that.
> >
> > Jack Painter
> > Virginia Beach VA

# 2543. Re: Home brew antenna for FCC Part 15 screening?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-22 00:15:47 UTC
From: Dave VanHorn <dvanhorn@cedar.net>
Message-ID: <SuednVEtd84DsjzcRVn-2w@comcast.com>
Source record: 86340

I do this at home, but I don't try to make absolute measurements.
You can easily use a dipole, just as the lab will do when they want an accurate look at a specific spike. You'll need to do this outdoors, away from emitters. For me that's a practical impossibility, as I'd have to cart the equipment quite a ways to get to a quiet site.

What I did, is to build a shield enclosure from double-sided PCB material, soldered together with brass reinforcements on the corners, and finger stock to seal the lid. I use a small pickup loop to feed my spectrum analyzer, or IC-R8500 receiver.

Use a small microwave tray to set your pcb up off the copper! :)

By itself, this will give you unreproducible and very frustrating results.
The next thing you need is some sheets of 3M Mosfoam. The stuff they ship chips in.
Black, squishy, carbon loaded foam. This stuff absorbs RF quite nicely, and you get double effect because what dosen't absorb is reflected by the copper for another pass through the foam..
Line all the walls with this, and you'll be able to make repeatable relative measurements.

Now, just find your highest spike, and kill it, repeat till it gets difficult.

You can find some notes on this at www.dvanhorn.org

# 2544. Re: Facts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-22 00:20:35 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cnrbcj$k6u$1@titan.btinternet.com>
Source record: 86341

Cec, I was well aware of what Chipman was about to write years before he wrote his most excellent, most reliable book on the subject of transmission lines. There are are very few errors. All of those which I have found can be attributed to the printer. But you don't find these unless you actually use the book, fully understand the book, and do some practical sums.

There are far too many people who use books as bibles because they have found them verbally convincing but who have never actually used them by inserting practical engineering numbers. No-one unfamiliar with numbers can call himself an engineer. More likely he is a plagiarising Old Wife.

I do not worship Chipman. I think he is still plodding around in his 90's. I don't worship anybody.

Whilst on the subject of reliability, I have very recently had a serious accident.

My corkscrew broke.

It can only have been due to metal fatigue and all the use its had. Probably made in Taiwan or Korea.

For 5 days, for one reason or another, I have been confined to the house without the opportunity to replace corkscrews. Yet there have been 4 unopened bottles of perfectly good wine in the cooler, with clean glasses. Calamity! Absolute misery!

But my long mechanical engineering experience came to the rescue. I discovered a 1/4" Philips screwdriver and a hammer. With lots of hammering I eventually drove the cork (of a bottle of Premieres Cotes de Bordeaux, sweet-white), inside the bottle.

The cork floats on the top of the wine and there's few problems with pouring. The cork remains quite intact. No contaminating bits to spit out.

So everything is now back to normal. I shortly expect to obtain a new corkscrew - this time with a spare.

Hic!
----
Reg.

"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:419ec8f3$1_1@127.0.0.1...
> Reg Edwards wrote:
> > Write it down. It will then be obvious, to make the angle of Zo equal
to
> > zero it is necessary only that the angle of R+j*Omega*L be made equal to

the
> > angle of G+j*Omega*C.
>
> Reg, there is no contradiction between what I have said and what you have
said.
>
> Continuing the discussion - For average transmission lines used on HF
> frequencies, "... the value of G ... is likely to be too small to affect
the
> attenuation factor ..." Quote from "Transmission Lines" by Chipman, page
94.
>
> Some of Chipman's calculations indicate that, for a typical 10 MHz
example,
> R is about 0.1 ohm/meter while G is about 0.9 micromhos/meter. That's
about
> a 100,000:1 ratio making G negligible as far as attenuation factor goes.
>
> The attenuation factor depends almost entirely on R, the series resistance
> parameter. G, the parallel conductance parameter, has a negligible effect
> on the attenuation factor at HF.
>
> Since, at HF, the attenuation factor consists almost entirely of series
> resistance, and since the attenuation factor is identical for voltage and
> current, it logically follows that the series resistance is primarily
> responsible for the attenuation of the current.
>
> > Or even more simple, for Zo to be purely resistive, G = C*R/L
>
> Actually, that is only an approximation for low-loss lines.
> --
> 73, Cecil, W5DXP

# 2545. Re: LOGPERIO.XLS Antenna calculating EXCEL spreadsheet.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-22 00:29:32 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cnrbtc$aut$1@hercules.btinternet.com>
Source record: 86342

All you have do now is modify the program to acept antenna gain, beam width and front to back ratio, and print out the number and length and spacing between elements. ;o)
---
Reg.

# 2546. Re: Cobra UltraLite Multi-band Antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-22 01:18:39 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <v8b2q0lj1ifecbrduo27nngur97lq78gbi@4ax.com>
Source record: 86343

On Sun, 21 Nov 2004 23:24:45 GMT, "Frank" <ve6cb@NOSPAM.telus.net>
wrote:
> so half inch spacing is probably closer to the correct dimensions.

Hi Frank,

Well, my wires were separated by nearly three times that, it was
suggested by a warning window that it should have been 6" and all this
is immaterial to the design being Zip cord.

OK, so we proceed with an antenna that is "like" the topic, but is
spread out to attend to the modeler. I took all wires and separated
them by those 6" and did a SWR sweep from 2 to 30MHz by 0.2MHz and
EZNEC plunged on through them all without clutching up.

Results are
12 +j550 Ohms at 2MHz -11dBi @ 10ï¿½
resonates below 80M -6dBi @ 10ï¿½
1975 -j160 Ohms at 60M -4dBi @ 10ï¿½
570 -j890 Ohms at 40M -0.7dBi @ 10ï¿½
104 -j680 Ohms at 30M 1.1dBi @ 10ï¿½
440 -j610 Ohms at 20M 5.5dBi @ 10ï¿½
210 +j1300 Ohms at 17M 7.7dBi @ 10ï¿½
420 -j520 Ohms at 15M 8.2dBi @ 10ï¿½
173 +j404 Ohms at 12M 10dBi @ 10ï¿½
330 -j360 Ohms at 10M 10dBi @ 10ï¿½

73's
Richard Clark, KB7QHC

# 2547. Re: Cobra UltraLite Multi-band Antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-22 01:52:00 UTC
From: Frank <ve6cb@NOSPAM.telus.net>
Message-ID: <4Dbod.13898$l65.4560@clgrps13>
Source record: 86344

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:v8b2q0lj1ifecbrduo27nngur97lq78gbi@4ax.com...
> On Sun, 21 Nov 2004 23:24:45 GMT, "Frank" <ve6cb@NOSPAM.telus.net>
> wrote:
>> so half inch spacing is probably closer to the correct dimensions.
>
> Hi Frank,
>
> Well, my wires were separated by nearly three times that, it was
> suggested by a warning window that it should have been 6" and all this
> is immaterial to the design being Zip cord.
>
> OK, so we proceed with an antenna that is "like" the topic, but is
> spread out to attend to the modeler. I took all wires and separated
> them by those 6" and did a SWR sweep from 2 to 30MHz by 0.2MHz and
> EZNEC plunged on through them all without clutching up.
>
> Results are
> 12 +j550 Ohms at 2MHz -11dBi @ 10°
> resonates below 80M -6dBi @ 10°
> 1975 -j160 Ohms at 60M -4dBi @ 10°
> 570 -j890 Ohms at 40M -0.7dBi @ 10°
> 104 -j680 Ohms at 30M 1.1dBi @ 10°
> 440 -j610 Ohms at 20M 5.5dBi @ 10°
> 210 +j1300 Ohms at 17M 7.7dBi @ 10°
> 420 -j520 Ohms at 15M 8.2dBi @ 10°
> 173 +j404 Ohms at 12M 10dBi @ 10°
> 330 -j360 Ohms at 10M 10dBi @ 10°
>
> 73's
> Richard Clark, KB7QHC

Hi Richard:

I have modeled wires separated by 0.5" as transmission lines, and gotten good agreement with the predicted impedance. Only problem, with an antenna of this type, is you exceed the 2000 maximum number of allowable segments. I think I can go to 2" spacing, with 2" segmentation, and will give it a try. I suspect I will get results very similar to yours. I also suspect -- but have yet to verify -- that these antennas will behave pretty much the same as a conventional dipole of the same overall length. Note that a 140 ft dipole resonates at 3.34 MHz.

73,

Frank

# 2548. Re: Single ground

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-22 02:36:02 UTC
From: kelly@dvol.com
Message-ID: <d22b54c3.0411211836.4c65cfb1@posting.google.com>
Source record: 86345

Gary Schafer <gaschafer@comcast.net> wrote in message
news:<f830q0l5g3ms89dr2ff3bsc0eq24s3gmfb@4ax.com>...
> On 20 Nov 2004 17:59:12 -0800, kelly@dvol.com (Brian Kelly) wrote:
>
. . .

> >
> >I'm one of those who pulls the coax off the tower at around eight feet
> >and hangs it on a carrier wire from the tower to the outside wall near
> >the shack.
>
> Theref are many installations like yours in existance. It was the
> "common way" to do it some years ago. Not the best though.
>
> >In the past I've had end insulators at both ends of the
> >carrier wire. Your point about grounding the coax at the base of the
> >tower is well taken but is obviously not possible in these situations.
> >It occurs to me that the same effect can be accomplished by connecting
> >a #6 or #8 solid wire between the the coax shields where they bend
> >away from the tower and the base of the tower. Yes?
>
> No that won't do much good. If you ground the coax shield to the tower
> where it bends away from the tower you will have a much better (lower
> inductance) to ground with the tower than what the wire would provide.
> The wire would do almost no good at all when compared to the much
> larger tower in parallel.

Got it.

> >Taking it a bit further it also occurs to me that the carrier wire
> >could be connected to the base of the tower at the point where the
> >tower connects to the ground rods there, then up the tower and
> >connected to both the coax shields at the eight foot level and the
> >tower again.
>
> Same as above. Grounding the carrier to the tower will do much more
> than a wire to the ground rods at the tower. The carrier wire should
> not be insulated from the tower. It and the coax should both be
> grounded to the tower at the exit point. Otherwise you can have
> flashover's to the carrier.

OK, cancel useless wire from base of tower.

> >Then horizontally to the house wall with the coax, then
> >down to the ground rods just outside the shack to which the equipment
> >is also grounded. I'd also connect the coax shields to the carrier

> >wire again at the point where they turn away from the wire and go
> >through the wall. One hefty continuous, unbroken length of copper
> >wire. There would still be voltage differentials involved because
> >there is no escape from the inductances BUT . . . is my thinking in
> >the right direction here?
>
> Connecting the carrier wire to the coax again at the house is a good
> idea for the same reason you should connect it at the tower. to
> prevent flashovers to the cables. The same situation exist on the
> tower itself with lines running down. That is why they should be
> grounded to the tower at several points. Especially on a tall tower.

OK again.

> The tower has inductance just like any piece of wire has. Although
the
> tower inductance is less than just a length of wire it still has
> inductance. When lightning strikes the top, the tower and lines all
> share the current to ground. The farther up from ground you are the
> higher the voltage will be with respect to ground.

I got that from your prior post.

> It can be
> significant. Especially on a smaller tower.

It took a few seconds to get your point but yes, it's a matter of how
far up the tower the coax departs the tower as a percentage of the
tower height. Since I'm planning a short (35-40 foot tubular crankup)
tower I'll have both a "high inductance tower" and a high pulloff
level in terms of percentage. Not good no matter how one looks at it.

> Leaving the tower only a
> few feet above ground with your coax line is putting that line at some
> point above ground that can have high voltage.
>
> The best way is to run the lines all the way to the bottom of the
> tower, ground them there, and then run underground to the house to
> your ground rods. Don't forget to also run a ground lead from your
> house ground to your tower ground system too.

That's a given.

> Bury it along with the
> cables. That will give you more contact with the earth as well as
> tying the grounds together.

The wire will be there but I doubt that I'll be able to bury it.

The whole (small) property is part of a forest of huge old hardwoods
several of which are crowded close to the house particularly along the
wall thru which I need to feed the coax. You'd have to see it to
believe it and it's only six miles from City Hall Philadelphia.

Digging a trench is not possible thru the tangle of roots on any approach from the tower to the wall. I'm not looking forward to driving ground rods thru this maze of underground lumber but I'll do it even if it takes some serious power drilling to accomplish.

What I could do is run all the cables to the bottom of the tower with shield bonds at the top of the moving section, another one at the top of the fixed section, another bond halfway down fixed section and the last one at the bottom of the tower. Which will also be surrounded by trees. There's a hole below the canopy big enough to accomodate a Hexbeam or some similar very compact HF antenna if I spot the tower correctly. Some contractor is going to have a really bad time digging the hole for tower base. From the base of the tower I'll run the cables and the carrier wire horizontally on the surface for a few feet then back up to the eight foot level to a tree trunk. Six feet would also work and the rest of the run would be per previous.

The good news is that the soil is eternally damp highly conductive dark loam . .

> Gary K4FMX

Thanks Gary.

# 2549. FS: Sommer XP807

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-22 02:43:50 UTC
From: Michael Poteet <lmcobox-ant@yahoo.com>
Message-ID: <9pi2q05miqq3puphikit1l9cgrnebtj2si@4ax.com>
Source record: 86357

Sommer XP807 beam.
good condx
tilt boom to mast adapter
20 foot boom section

located in Fort Worth, TX
cash and carry; no ship

$600

Mike W5FTD
lmcobox-ant@yahoo.com

# 2550. Re: Home brew antenna for FCC Part 15 screening?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-22 02:58:21 UTC
From: Rick Frazier <rickf@rickfrazier.com>
Message-ID: <41A155D9.24C0070F@rickfrazier.com>
Source record: 86346

Mike:

If you're looking for absolute information, like the report the EMC test lab produced, you could spend from $50,000 for the "basics" for an open site (outdoors, away from large signal sources, hopefully nearby or where you live), not counting such things as a turntable for the Device Under Test (DUT), on to a Million or more for a fully shielded, equipped "Screen Room". 'Been there, done that, (both kinds). Keeping everything calibrated so the results are accepted by FCC and others can be somewhat spendy and time consuming too.

(By the way, I'd have really loved a bill as low as $800 for scanning a device for Part 15 when I was doing it.. preliminary scans often cost well over that!).

On the other hand, if you want to "get an idea" of what your device is doing, or to debug it after you have a scan in hand, you can surely get by with nearly any broadband antenna for the frequency range of choice and a fairly sensitive spectrum analyzer. These aren't the hard parts. The hard part is the time you're going to invest to scan your local environment, so you can document the "local emitters" so you know whether the emission is from your device or is ambient noise in your environment. Of course, you may also need to do some of your scans "off hours" (like 3am) when the local emitter isn't broadcasting so you can make sure your device doesn't just happen to emit at the same frequency... (I spent countless hours doing this as well. If most people knew what it took to get a new device accepted and into manufacturing, perhaps they wouldn't balk at the price as much.)

If you have access to a remote, open site (the ideal is somewhere that is accessible without 4 wheel drive, in a small box canyon or valley, nearly or completely ringed by mountains, and as far away from civilization as possible, to limit the number of nearby emitters... Of course, in this day and age, these are pretty hard to find, and I've known people to take an old airplane hanger and screen it with appropriate sized copper mesh, bonded together to make a very large faraday cage... (One place actually used copper window screen, soldering the edges together. Must have cost them a fortune, but it was pretty quiet, considering it was smack dab in the middle of one of the most RF polluted places on earth, (Silicon Valley) ).

Half way decent antennas that have pretty wide range aren't that tough to find. Think log periodic and you have a good start... Of course, they won't be calibrated like the ones the EMC lab has, but you can get a really good idea of what's going on, and later, you can "borrow" the antennas and use them for Ham use (temporarily, of course). At one open

site, we used three different, log periodics of overlapping ranges, and all worked pretty well. Of course, to get into the HF region, we had to put the antenna quite high from the ground so we could go to vertical polarization, which also meant the DUT had to be on a platform at equal height. Think about making an extremely well sealed, wood tower about 20 feet tall, with a turntable for rotating the DUT, all without any metal fasteners! Even the turntable was made without metal (billiard balls make really good non-conductive bearings if you do it right) with the rotator motor down at ground level. All in all, it would have been a lot more fun if there hadn't been a schedule deadline looming... Oh yeah, you should also be able to change the height of the receiving/sampling antenna so you can look for emission off of the horizontal plane of the turntable...

As I remember it, Create had a log periodic that covered something like 50 Mhz to 1.3 Ghz, and EMC test systems had one that does something like 80 Mhz to 2 Ghz... A quick search on the web shows that KMA makes one that covers 26 Mhz to 1.3 Ghz, and another that covers 13 Mhz to 30 Mhz, so it can still be done.

Good Luck
--Rick AH7H

Mike wrote:

> I know this is not exactly the group to post in, but I thought
> radio amateurs would have the best ideas for making one's own
> antenna. I apologize if this question bothers anybody.
>
> I just spent $800 at an EMC test lab to screen my device for
> part 15 compliance. The used a Biconical antenna and a spectrum
> analyzer to measure emissions from my device. I was wondering
> how inexpensively I could I make my own system for screening?
>
> How hard would it be to make half way decent antenna or antennas that
> could listen to a broad spectrum?
>
> Any websites out there have tips on making antennas?
>
> Thanks a lot for your help.
> -Mike Dorin

# 2551. Re: random wire antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-22 03:29:55 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cnrmfj$7oj$1@titan.btinternet.com>
Source record: 86347

Let me try to summarise.

A simple thing like a balun does only two simultaneous things.

It changes the impedance presented to the receiver (or transmitter).

And, because it disconnects the usually slightly radiating feedline from the antenna, it changes to some uncertain extent the antenna's directional properties both locally and at a distance.

On receive, the change in impedance matters very little. It doesn't matter very much whether the impedances involved are 600 or 300 or 50 ohms. They are quite arbitrarily decided by the mechanical construction of the transformer and are arithmetically derived by (often wildly incorrect) assumptions of values for line and receiver impedances.

The change in the antenna's directional properties sometimes, but not always matters. It depends on the local environment and can affect such things as signal to noise and signal to interference ratios. But you never know until you've tried it.

The very general moral is - if there's an improvement in performance in any respect due to fitting a balun then keep it. If there's no improvement then you could leave it where it is or try to sell it back to the manufacturer. It will seldom degrade performance.

On rare occasions, fitting a balun can make matters worse. But once again you'll never know until you've tried it. And the "made worse" circumstances are never reported in magazines. This causes bias in the statistics.

It can hardly be called "engineering". But there's nothing else one can do in the presence of inevitable large uncertainties in the local environment. It's this piquancy which adds to the pleasure of both amateur and professional radio.

Professionals who have to earn a living play safe by predicting radio paths to be typically within plus or minus 15 or 20 dB. Amateurs have the time to spare to quibble about minute fractions of S-units.

And balun and antenna salesmen have no alternative but to hover around and attempt to make a living out of the suckers. Everyone has a right to make a living.
----
Reg, G4FGQ

# 2552. Re: Single ground

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-22 03:42:56 UTC
From: Gary Schafer <gaschafer@comcast.net>
Message-ID: <d0o2q09hv0q03103bjhodvrhlra1rg7kcd@4ax.com>
Source record: 86348

On 21 Nov 2004 18:36:02 -0800, kelly@dvol.com (Brian Kelly) wrote:

>Gary Schafer <gaschafer@comcast.net> wrote in message
news:<f830q0l5g3ms89dr2ff3bsc0eq24s3gmfb@4ax.com>...
>> On 20 Nov 2004 17:59:12 -0800, kelly@dvol.com (Brian Kelly) wrote:
>>
>. . .
>
>> >
>> >I'm one of those who pulls the coax off the tower at around eight feet
>> >and hangs it on a carrier wire from the tower to the outside wall near
>> >the shack.
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>> Theref are many installations like yours in existance. It was the
>> "common way" to do it some years ago. Not the best though.
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>> >In the past I've had end insulators at both ends of the
>> >carrier wire. Your point about grounding the coax at the base of the
>> >tower is well taken but is obviously not possible in these situations.
>> >It occurs to me that the same effect can be accomplished by connecting
>> >a #6 or #8 solid wire between the the coax shields where they bend
>> >away from the tower and the base of the tower. Yes?
>>
>> No that won't do much good. If you ground the coax shield to the tower
>> where it bends away from the tower you will have a much better (lower
>> inductance) to ground with the tower than what the wire would provide.
>> The wire would do almost no good at all when compared to the much
>> larger tower in parallel.
>
>Got it.
>
>> >Taking it a bit further it also occurs to me that the carrier wire
>> >could be connected to the base of the tower at the point where the
>> >tower connects to the ground rods there, then up the tower and
>> >connected to both the coax shields at the eight foot level and the
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>> grounded to the tower at the exit point. Otherwise you can have
>> flashover's to the carrier.
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>OK, cancel useless wire from base of tower.

>
> > >Then horizontally to the house wall with the coax, then
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>> >wire again at the point where they turn away from the wire and go
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>> prevent flashovers to the cables. The same situation exist on the
>> tower itself with lines running down. That is why they should be
>> grounded to the tower at several points. Especially on a tall tower.
>
>OK again.
>
> > The tower has inductance just like any piece of wire has. Although
>the
>> tower inductance is less than just a length of wire it still has
>> inductance. When lightning strikes the top, the tower and lines all
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>
>I got that from your prior post.
>
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>
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>level in terms of percentage. Not good no matter how one looks at it.
>
>> Leaving the tower only a
>> few feet above ground with your coax line is putting that line at some
>> point above ground that can have high voltage.
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>> The best way is to run the lines all the way to the bottom of the
>> tower, ground them there, and then run underground to the house to
>> your ground rods. Don't forget to also run a ground lead from your
>> house ground to your tower ground system too.
>
>That's a given.
>
>> Bury it along with the
>> cables. That will give you more contact with the earth as well as
>> tying the grounds together.

>
>The wire will be there but I doubt that I'll be able to bury it.
>
>The whole (small) property is part of a forest of huge old hardwoods
>several of which are crowded close to the house particularly along the
>wall thru which I need to feed the coax. You'd have to see it to
>believe it and it's only six miles from City Hall Philadelphia.
>Digging a trench is not possible thru the tangle of roots on any
>approach from the tower to the wall. I'm not looking forward to
>driving ground rods thru this maze of underground lumber but I'll do
>it even if it takes some serious power drilling to accomplish.
>
>What I could do is run all the cables to the bottom of the tower with
>shield bonds at the top of the moving section, another one at the top
>of the fixed section, another bond halfway down fixed section and the
>last one at the bottom of the tower. Which will also be surrounded by
>trees. There's a hole below the canopy big enough to accomodate a
>Hexbeam or some similar very compact HF antenna if I spot the tower
>correctly. Some contractor is going to have a really bad time digging
>the hole for tower base. From the base of the tower I'll run the
>cables and the carrier wire horizontally on the surface for a few feet
>then back up to the eight foot level to a tree trunk. Six feet would
>also work and the rest of the run would be per previous.
>
>The good news is that the soil is eternally damp highly conductive
>dark loam . .
>
>> Gary K4FMX
>
>Thanks Gary.

Hi Brian,

It always seems to be a compromise when it comes to lightning
protection. It is very difficult to get everything just right.

I have a small crank up tower too. I use a heavy flexible wire that is
clamped to the top of the top section and the other end is clamped to
the top of the bottom section. When the tower is all the way up the
wire is fully extended. This provides some bonding of the tower
sections.
When the tower is cranked down this wire is of little use because it
has a large loop that hangs there. In the summer time when the tower
is cranked down I place a clamp at the bottom to clamp one leg of the
fixed section to a leg of the telescoping section. Not the best setup
but that is about all you can do with this type of tower.
You have it worse with a telescoping tube. No way to bond it when it
is down. All you can hope for is somewhat of a friction connection
when down.

By the way, I don't have near the ground rods installed that should be either. But my lines all run under ground about 150 feet.

73
Gary K4FMX

# 2553. Answer to Dipole Double-Resonance Problem

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-22 03:56:40 UTC
From: radio913@aol.com
Message-ID: <1d15af91.0411211956.278d6321@posting.google.com>
Source record: 86349

Hi,

Ok, so the other thread died out, but
I thought i should give the other answer
anyhow.

One poster infered one portion of the
fix, which was the height of the dipole
was increased from 3.5 ft to 6.5 ft.

The other change we made was with
the spacing BETWEEN the 1/4 wave
elements; i had originally made the
elements too far apart.

Bringing them closer together and
raising the height improved the SWR
and made the antenna resonant at
only one frequency within 88-108 MHz
(not including harmonics).

Thanks for playing!

Slick

# 2554. Re: Facts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-22 03:59:32 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41a1622b$1_2@127.0.0.1>
Source record: 86350

Reg Edwards wrote:
> There are far too many people who use books as bibles ...

Ain't that the truth? I post "1+1=2" and somebody wants a reference.
I just bought "Mathematics From the Birth of Numbers" by Jan Gullberg.
In addition to information on virtually all branches of mathematics,
it gives the history of the branches. It's really interesting.

> With lots of hammering I
> eventually drove the cork (of a bottle of Premieres Cotes de Bordeaux,
> sweet-white), inside the bottle.

At the beer/wine busts at Texas A&M during the 50's, nobody
could ever remember to bring a corkscrew so that's the way
we did it. Sometimes we forgot a bottle opener and used the
bumper of my old '49 Chevvy to open the beer.
--
73, Cecil, http://www.qsl.net/w5dxp

# 2555. Re: Cobra UltraLite Multi-band Antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-22 04:06:14 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <peo2q09dlju5mjhdbqh33ktlvji7gvrkt1@4ax.com>
Source record: 86351

On Mon, 22 Nov 2004 01:52:00 GMT, "Frank" <ve6cb@NOSPAM.telus.net>
wrote:
>Note that a 140 ft dipole resonates at 3.34 MHz.

Hi Frank,

I also note that the "Cobra" doubles the number of resonances across the 2 to 30 MHz spectrum with the resonances coming in adjacent pairs. Our sometime correspondent, Dr. Slick, thinks he invented this characteristic with his mystery, garden variety dipole; but it is a simple matter of putting a bend in the wire.

This one manipulation was also the foundation of the "fractal" antenna, but "scientists" gushed on with baroque explanations and hyperbolic claims to disguise a rather mundane oddity.

73's
Richard Clark, KB7QHC

## 2556. Re: I passed

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-22 04:06:32 UTC
From: Robert Casey <wa2ise@ix.netcom.com>
Message-ID: <cBdod.9333$Qh3.233@newsread3.news.atl.earthlink.net>
Source record: 86352

Shadow_998 wrote:
> I just wanted to say to this group: I am now KG6TDX/AG
>
Congrads. When you get a chance get the extra. Then
the entire ham radio allocations are at your fingertips.

# 2557. Re: Single ground

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-22 04:06:45 UTC
From: Jack Painter <223bthp@cox.net>
Message-ID: <qBdod.15535$D26.3848@lakeread03>
Source record: 86353

"Brian Kelly" <kelly@dvol.com> wrote
> Gary Schafer <gaschafer@comcast.net> wrote
> > No that won't do much good. If you ground the coax shield to the tower
> > where it bends away from the tower you will have a much better (lower
> > inductance) to ground with the tower than what the wire would provide.
> > The wire would do almost no good at all when compared to the much
> > larger tower in parallel.

This is correct, and why I mentioned even 6" was "too much".

> > It can be
> > significant. Especially on a smaller tower.
>
> It took a few seconds to get your point but yes, it's a matter of how
> far up the tower the coax departs the tower as a percentage of the
> tower height.

The last was not a correct assumption. The distance across a conductor (and in this case it is also the distance to ground) is what allows inductance to create deadly voltage potentials. Any conductor in series with a lightning strike will exhibit the same characteristics. 6" above ground near the base of a tower can translate to as much as 9800v above ground, with just modest assumptions of a very average return stroke current of 25Ka with a rise time of 40Ka/usec. It has no bearing whatsoever how tall or short the tower is. It's not long (or high above ground) before you could see over 100,000v potential develop where coax leaves any tower too soon.

> > Bury it along with the
> > cables. That will give you more contact with the earth as well as
> > tying the grounds together.
>
> The wire will be there but I doubt that I'll be able to bury it.

Burying a grounding electrode conductor is normally a code requirement. But that is not what you have in connecting the tower ground system to the station ground, AC mains ground, etc. Those are bonding conductors, and they are in many cases required to be insulated. Not in this case, but I want you to understand the difference between grounding, voltage division from many grounds, and a bonding conductor between your station and the tower. The latter is to maintain equipotential, and will not carry more than just equalizing currents. It will be well within the capability of a #6 insulated wire, should you choose to use that. Personally I would go a little larger but #6 is as largest that NEC or NFPA recommend for a bond in *most* cases. So burying the bonding conductor is not a requirement, although to protect it that is exactly what most facilities do. Neither will burying coax feedlines help in lightning protection, unless you are counting on them by

design to be grounding electrode conductors! Pretty foolish but heh, if someone tosses feedlines out a window, they may as well short them to a ground rod and "bring it on". In that case any more than about 5,000v will breakdown the dialectric both inside and outside the coax, and anything nearby may be the next target before it ever reaches the ground rod.

> The good news is that the soil is eternally damp highly conductive
> dark loam . .
>
> > Gary K4FMX

That is very good news, and it makes your job easier. But good soil or poor soil, understanding what bonding provides is equally if not more important than having a ground rod at all. To rest on the laurels of highly conductive soil and ignore bonding, would be inviting disaster. Yes commercial tower design does require many shield "bonds" along the height of towers, but as I said, I applied a reasonable approach which the average short tower or mast-only owner could and would be likely to comply with - bonding at the top, bottom and station entrance. I suspect few go even that far.

You may or may not be interested in all the surge protection diatribe in my website, but it's there because so many unfortunate souls were mislead in this area. I do think you might benefit from it's coverage of what bonding does to protect both you and your station, and it is a lot harder for most to get a hold of then simple mast or tower grounding. It doesn't have to be.

http://members.cox.net/pc-usa/station/ground0.htm

73,
Jack Painter
Virginia Beach, VA

## 2558. Re: I passed

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-22 04:10:02 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41a1649e_3@127.0.0.1>
Source record: 86354

Robert Casey wrote:

> Shadow_998 wrote:
>> I just wanted to say to this group: I am now KG6TDX/AG
>>
> Congrads. When you get a chance get the extra. Then
> the entire ham radio allocations are at your fingertips.

Just like they were at my fingertips with a Conditional
in the 50's.

## 2559. Re: Home brew antenna for FCC Part 15 screening?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-22 04:14:45 UTC
From: Robert Casey <wa2ise@ix.netcom.com>
Message-ID: <VIdod.9341$Qh3.7673@newsread3.news.atl.earthlink.net>
Source record: 86355

Dave VanHorn wrote:

>
> Now, just find your highest spike, and kill it, repeat till it gets
> difficult.
>

For hunting for the exact spots where the DUT is leaking
crud, try using a split ferrite toroid. See at my page:
http://www.geocities.com/wa2ise/radios/ham.htm

# 2560. Re: Answer to Dipole Double-Resonance Problem

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-22 04:16:20 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <enp2q0dtl8mvc6fvq895csln5vj0l75g8p@4ax.com>
Source record: 86356

On 21 Nov 2004 19:56:40 -0800, radio913@aol.com (Dr. Slick) wrote:
> Bringing them closer together and
>raising the height improved the SWR
Has absolutely nothing to do with:
>and made the antenna resonant at
>only one frequency within 88-108 MHz

73's
Richard Clark, KB7QHC

# 2561. Re: Home brew antenna for FCC Part 15 screening?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-22 08:42:57 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <%Dhod.106271$kz3.74237@fed1read02>
Source record: 86358

"Mike" <bsd_mike@hotmail.com> wrote in message
news:b2809f59.0411210545.4bb1b571@posting.google.com...
>I know this is not exactly the group to post in, but I thought
> radio amateurs would have the best ideas for making one's own
> antenna. I apologize if this question bothers anybody.
>
> I just spent $800 at an EMC test lab to screen my device for
> part 15 compliance. The used a Biconical antenna and a spectrum
> analyzer to measure emissions from my device. I was wondering
> how inexpensively I could I make my own system for screening?
>
> How hard would it be to make half way decent antenna or antennas that
> could listen to a broad spectrum?
>
> Any websites out there have tips on making antennas?
>
> Thanks a lot for your help.
> -Mike Dorin

$800 is about 1/2 day of test time at a typical EMC lab. If you got a conducted emission test, a radiated emission pre-scan in a shielded enclosure, a diagnosis of the failure, amelioration of the problem, and a radiated emission test on an OATS, all for $800, I suggest you buy a lottery ticket tomorrow, cause you're on a roll!

Ed
wb6wsn

# 2562. DIY - Anyone built one of these - KIT : Deluxe Receiver HF Multicontroller (Multicoupler) Kit

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-22 10:26:33 UTC
From: rhf-newsgroups@pacbell.net
Message-ID: <ff3145e8.0411220226.33eddc63@posting.google.com>
Source record: 86359
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew

Do-It-Yourself (DIY) Project ?

Q#1 - Has anyone "Built" one of these Kits ?

KIT : Deluxe Receiver HF Multicontroller (Multicoupler) Kit by W8ZR

eBAY=> http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=5732753994
http://www.miami.muohio.edu/president/personal/w8zr/multicontroller/index.htm
KIT=> http://www.w8zr.net/multicontroller/

About "W8ZR" => http://www.w8zr.net/

Q#2 - How does the "Assembly" of the Kit go ?

Q#3 - Does the "Finished" Kit perform well enough so that it is
'worth' the Money and Time to built it ?

Q#4 - Are there 'cheaper' Lower Cost Ready-Made alternatives
to this "Kit" ?

iwtk ~ RHF
.
.

## 2563. HE3RSI: An antenna simulation challenge

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-22 11:08:12 UTC
From: "C.Aymon" <www.cyamon.com>
Message-ID: <41a1c864$1_3@news.bluewin.ch>
Source record: 86360

During the month of november 2004, a group of swiss radio-amateurs have the unique opportunity to use the antenna system of Swiss Radio International in Sottens. The call used for this special event is HE3RSI. Pictures of the antennas are available here http://www.hb9mm.com/photos/Sottens2004

The antenna has been build in the in the beginning of the seventies. Today, using powerfull computers and software, it would be very interesing to modelize the antenna and check if the expected and measured gains and patterns can be retrieved. For all of us who are interested in antennas simulations, I post here the structure and the dimensions of the Sottens antenna.

The antenna system consists of two antennas of the same structure. One antenna (A) is for the band 9..15 Mhz and one (B) for 15..21 Mhz. Both antennas are ''suspended'' on both sides of a reflector, please see the pictures to have a better view of the situation.

Here is the antenna ''A'' structure (all dimensions in meters):

1) The antenna consists of 8 full-wave dipoles, each of length 19.7m

2) The 8 dipoles are organized in two identical groups of 4.

3) One group consists of 4 stacked dipoles, in a vertical plane. The lowest dipole is at 22m above ground, then the second is 9.2m above the first, the third is 11.40m above the second and the fourth is 9.2m above the third.

4) The two identical groups of 4 dipoles are put side by side in the same vertical plane. The horizontal distance between the centers of the dipoles of each group is 21.33m.

5) All dipole are center-fed in phase via (a system of) transmission lines of the same length.

6) Each dipole is actually made of 3 parallel wires of 4.1mm diameter and 0.66m apart. The three wires of a dipole are in an horizontal plane.

7) The dipole groups are ''suspended'' in front of a reflector at a distance of 7.4m of the reflector.

8) The reflector consists of (abt) 120 wires, of length (abt) 46m, stretched between two towers of (abt) 63m heigh.

9) The whole system is rotatable and weights about 135 tons.

It would be interesting to have the gain and the pattern of the antenna on all amateurs bands from 7Mhz to 28Mhz.

I am ready to (try to) answer to any question, or provide any missing information.

To your keyboards ;)

Best 73 de HB9DBC, Chris

# 2564. It works! Sort of.....

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-22 11:40:51 UTC
From: Ken Bessler <kg0wx@NOSPAMyahoo.com>
Message-ID: <6fkod.1715$3I.569@okepread01>
Source record: 86361

Well, I finally got a SWR meter for UHF and put it on my 2 meter colinear base antenna. The antenna is a Hustler CG-144 with radial/mast mount kit. It's a 1/4 wave phased with a 5/8 wave. It's best VHF swr is 1.2:1 @ 144.900 mhz.

I had tested it on 440 with my HT and it seemed to work so I got a SWR meter and tested it. My friend Dave KC0EMK also came over with his UHF ant analyzer.

Both meters show a varying SWR around 1.8:1 with a dip to 1.1:1 @ 440.500 mhz. Coax is 37' of Flexi 4XL with properly fitted PL-259's on each end.

What gets me is if this antenna performs so well on UHF and the swr's are not too bad, then WHY doesn't Hustler advertise it as a dual band antenna?

Ken KG0WX

# 2565. Re: MUFF

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-22 12:30:07 UTC
From: Mark <bigfathhairybiker@MAILhot.com>
Message-ID: <41a1da79$0$10935$ed9e5944@reading.news.pipex.net>
Source record: 86363

"CW" <cmagers@earthlink.net> wrote in message
news:RvudnaYi1bRnvzzcRVn-sA@comcast.com...
> Why?
>
> "Fractenna" <fractenna@aol.com> wrote in message
> news:20041121172813.21699.00000854@mb-m12.aol.com...
> > ...'muff' map?!
> >
> > Gimme a break. Can't it be called something else?
> >
> > 73,
> > Chip N1IR
> >
> >

Nobody here heard of Muff Diving?

# 2566. Re: MUFF

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-22 12:30:59 UTC
From: Mark <bigfathhairybiker@MAILhot.com>
Message-ID: <41a1daad$0$2305$ed9e5944@reading.news.pipex.net>
Source record: 86362

> "Fractenna" <fractenna@aol.com> wrote in message
> news:20041121172813.21699.00000854@mb-m12.aol.com...
> > ...'muff' map?!
> >
> > Gimme a break. Can't it be called something else?
> >
> > 73,
> > Chip N1IR
> >
> >

Oh , and by the way... wheres me Fractal Antenna info?

# 2567. Re: DIY - Anyone built one of these - KIT : Deluxe Receiver HF Multicontroller (Multicoupler) Kit

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-22 12:44:24 UTC
From: "Mark S. Holden" <mark@bmas.org>
Message-ID: <ONadnYsKd5KuQjzcRVn-3g@adelphia.com>
Source record: 86364
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew

RHF wrote:

> Do-It-Yourself (DIY) Project ?
>
> Q#1 - Has anyone "Built" one of these Kits ?
>
> KIT : Deluxe Receiver HF Multicontroller (Multicoupler) Kit by W8ZR
>
> eBAY=> http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=5732753994
> http://www.miami.muohio.edu/president/personal/w8zr/multicontroller/index.htm
> KIT=> http://www.w8zr.net/multicontroller/
>
> About "W8ZR" => http://www.w8zr.net/
>
> Q#2 - How does the "Assembly" of the Kit go ?
>
> Q#3 - Does the "Finished" Kit perform well enough so that it is
> 'worth' the Money and Time to built it ?
>
> Q#4 - Are there 'cheaper' Lower Cost Ready-Made alternatives
> to this "Kit" ?
>
>
> iwtk ~ RHF
> .
> .

w8zr is a member of premium-rx and IIRC the project was mentioned in a favorable light by Greg (The list owner) shortly before the article was published.

There is a discussion group on the w8zr site where quite a few people have left comments and questions resulting from building and using the multicoupler.

<http://unixgen.muohio.edu/~garlanjc/multicontroller/postings.htm>

# 2568. Test

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-22 12:48:08 UTC
From: Bert Craig <wa2si@optonline.netNOSPAM>
Message-ID: <Jhlod.49$D22.28@fe09.lga>
Source record: 86365

Test

--
Vy 73 de Bert
WA2SI
FISTS #9384
QRP ARCI #11782

# 2569. Re: It works! Sort of.....

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-22 13:10:14 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41a1e337$1_1@127.0.0.1>
Source record: 86366

Ken Bessler wrote:
> Well, I finally got a SWR meter for UHF and put it
> on my 2 meter colinear base antenna. The antenna
> is a Hustler CG-144 with radial/mast mount kit.
> What gets me is if this antenna performs so well on
> UHF and the swr's are not too bad, then WHY doesn't
> Hustler advertise it as a dual band antenna?

It probably has a high radiation angle on 440 which
is typical of 2m antennas used on 440. An antenna is
a dual-band *by design*, virtually never by accident.
--
73, Cecil, http://www.qsl.net/w5dxp

# 2570. Re: MUFF

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-22 13:14:40 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41a1e441$1_5@127.0.0.1>
Source record: 86367

Mark wrote:
> Nobody here heard of Muff Diving?

As a joke, I scratched out the word "Scuba" on my
Scuba Diver qualification card and wrote "Muff" over
it. The checkout lady at the Scuba Diving place looked
at it and blew me away when she said, "Care to demonstrate
your technique?"
--
73, Cecil http://www,qsl.net/w5dxp

# 2571. Re: It works! Sort of.....

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-22 13:25:32 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <30e7meF2u9h92U1@uni-berlin.de>
Source record: 86368

"Ken Bessler" wrote
>
> What gets me is if this antenna performs so well on
> UHF and the swr's are not too bad, then WHY doesn't
> Hustler advertise it as a dual band antenna?

---

The free-space radiation pattern of a 1/2-wave dipole operating at ~3X its design frequency has a tri-lobe shape. Maximum gain occurs in two planes that are not perpendicular to the axis of the dipole, with a reduced lobe in the perpendicular plane.

Radiation patterns from your Hustler also will be different for these conditions -- which could explain why it is not marketed as a dual-band antenna.

RF

Visit http://rfry.org for FM transmission system papers.

## 2572. Re: What's the best Source of Info On Rhombics?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-22 13:38:37 UTC
From: jjj <jjj@nospam.com>
Message-ID: <41A1EBDD.FF8ECDAB@nospam.com>
Source record: 86369

http://www.cebik.com

jj

Cecil Moore wrote:

> MailfrmPA wrote:
> > What book/mag article would you recommend as the best "how to " source of info
> > on rhombics for the low bands?
>
> The ARRL Antenna Book is a good start.
> --
> 73, Cecil, W5DXP

# 2573. Re: 6 mtr antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-22 13:42:00 UTC
From: jjj <jjj@nospam.com>
Message-ID: <41A1ECA6.D037FA43@nospam.com>
Source record: 86370

Hi,

Take a look at this design,
Moxon gains similar to Yagi
but less room and easy to build,
direct fed with coax.

jj

http://www.cebik.com/6m.html

# 2574. FS r trade 70' Tri-ex Tower

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-22 13:57:52 UTC
From: wb4una@aol.com
Message-ID: <20041122085752.06040.00000556@mb-m19.aol.com>
Source record: 86371

I have a 70' free standing crank-up tower that islooking for a new home. This tower will hold 25 square at 70 mph.. It comes with coax arms, Ham 4 rotor and box,and trust bearing. I will sell it for $3500.00 ..the tower alone goes for $5300.00.. I will trade for other ham stuff also..

thanks for reading
randy

ARS: WB4UNA
Randy Chavis
247 Goff Court
West Columbia
S.C. 29172

# 2575. Re: 2mt Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-22 14:00:36 UTC
From: jjj <jjj@nospam.com>
Message-ID: <41A1F103.5A69130C@nospam.com>
Source record: 86272

hello john,

good luck on your testing.

Take a look at this antenna,

http://www.cebik.com/hs.html

called the half square for two meters.

regards,
jj

John wrote:

> I am soon to take a foundation license and would like to work 2meters. I am
> restricted by local regulations with regard to Antenna height. What would be
> the minimum height that I could use ?
> Any help advice appreciated
> J.

# 2576. Re: 6 mtr antenna help

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-22 14:04:06 UTC
From: jjj <jjj@nospam.com>
Message-ID: <41A1F1D4.82A98628@nospam.com>
Source record: 86273

hi tony,

take a look at this desigh, the Moxon for 6m !

http://www.cebik.com/6m.html

Less space but almost the same gain as the Yagi

horizontal or vertical no problem.

regards,
jj

tonester wrote:

> Looking to build a decent 6 mtr antenna ... probably a loop...
>
> space no problem indoor out out...
>
> want to hit local repeater 50 miles away...
>
> Have you had experience and can you recommend a good one..!!!
> THX in advance
>
> Tony

# 2577. Re: 2meter jpole question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-22 14:14:31 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <bvmod.31086$Qv5.19702@newssvr33.news.prodigy.com>
Source record: 86274

Kjell,
Basically, it just doesn't matter...
'Doc

# 2578. Re: Answer to Dipole Double-Resonance Problem

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-22 15:31:28 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <O6Odnez13anamz_cRVn-uA@comcast.com>
Source record: 86275

"Dr. Slick" <radio913@aol.com> wrote in message
news:1d15af91.0411211956.278d6321@posting.google.com...
> Hi,
>
> Ok, so the other thread died out, but
> I thought i should give the other answer
> anyhow.
>
> One poster infered one portion of the
> fix, which was the height of the dipole
> was increased from 3.5 ft to 6.5 ft.
>
> The other change we made was with
> the spacing BETWEEN the 1/4 wave
> elements; i had originally made the
> elements too far apart.
>
> Bringing them closer together and
> raising the height improved the SWR
> and made the antenna resonant at
> only one frequency within 88-108 MHz
> (not including harmonics).
>
> Thanks for playing!
>
>
> Slick

Did you measure the original distance tip-to-tip, or did you measure 2X the
length of one side independent of the spacing in the middle?

Tam/WB2TT

# 2579. Re: DIY - Deluxe Receiver HF Multicontroller (Multicoupler) Kit

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-22 15:48:19 UTC
From: w9gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <7Tnod.445874$D%.338813@attbi_s51>
Source record: 86276
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew

"RHF" <rhf-newsgroups@pacbell.net> wrote in message
news:ff3145e8.0411220226.33eddc63@posting.google.com...
> Do-It-Yourself (DIY) Project ?
>
> Q#1 - Has anyone "Built" one of these Kits ?
>
> KIT : Deluxe Receiver HF Multicontroller (Multicoupler) Kit by W8ZR
>
> eBAY=> http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=5732753994
> http://www.miami.muohio.edu/president/personal/w8zr/multicontroller/index.htm
> KIT=> http://www.w8zr.net/multicontroller/
>
> About "W8ZR" => http://www.w8zr.net/
>
> Q#2 - How does the "Assembly" of the Kit go ?
>
> Q#3 - Does the "Finished" Kit perform well enough so that it is
> 'worth' the Money and Time to built it ?
>
> Q#4 - Are there 'cheaper' Lower Cost Ready-Made alternatives
> to this "Kit" ?
>
>
> iwtk ~ RHF

About 1/2 way through ... job interruptions !!
As mentioned, discussion group comments on the W8ZR web site, helpful.
... hopefully will finish mine during Christmas holidays.

Greg
w9gb

# 2580. Re: Single ground

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-22 16:34:14 UTC
From: Gary Schafer <gaschafer@comcast.net>
Message-ID: <rj34q0l0q0ij6l7uhjeipkuuv6evjqa6r8@4ax.com>
Source record: 86277

On Sun, 21 Nov 2004 23:06:45 -0500, "Jack Painter" <223bthp@cox.net>
wrote:

>
>"Brian Kelly" <kelly@dvol.com> wrote
> > Gary Schafer <gaschafer@comcast.net> wrote
> > > No that won't do much good. If you ground the coax shield to the tower
>> > where it bends away from the tower you will have a much better (lower
>> > inductance) to ground with the tower than what the wire would provide.
>> > The wire would do almost no good at all when compared to the much
>> > larger tower in parallel.
>
>This is correct, and why I mentioned even 6" was "too much".
>
>> > It can be
>> > significant. Especially on a smaller tower.
>>
>> It took a few seconds to get your point but yes, it's a matter of how
>> far up the tower the coax departs the tower as a percentage of the
>> tower height.
>
>The last was not a correct assumption. The distance across a conductor (and
>in this case it is also the distance to ground) is what allows inductance to
>create deadly voltage potentials. Any conductor in series with a lightning
>strike will exhibit the same characteristics. 6" above ground near the base
>of a tower can translate to as much as 9800v above ground, with just modest
>assumptions of a very average return stroke current of 25Ka with a rise time
>of 40Ka/usec. It has no bearing whatsoever how tall or short the tower is.
>It's not long (or high above ground) before you could see over 100,000v
>potential develop where coax leaves any tower too soon.

A little clarification here. When I said "smaller tower" I was not
necessarily referring to a shorter tower but one that has less surface
area. (smaller face)

The main consideration is the distance up from ground that the cables
leave the tower.

A lightning strike is a constant current source. If it is a 20ka
strike the voltage across whatever it hits is going to raise high
enough to conduct 20ka. If you have a low impedance conductor (tower)
the voltage developed across it will be less than it would be on a
high impedance tower (smaller face tower).

That is why large communication towers have less problems with lines
coming off at higher points on the tower. More of the strike current

makes it to ground via the tower with the larger surface it has.

Leaving the tower at some height above ground with the cables is still
a division of the voltage like a voltage divider. The higher up you
are the higher the voltage you will see with respect to ground. But
what determines what that actual voltage goes to is the amount of
strike current and the amount of inductance between the cable exit
point and ground. Of course the cables leaving the tower will also
carry part of the current too.

>
>> > Bury it along with the
>> > cables. That will give you more contact with the earth as well as
>> > tying the grounds together.
>>
>> The wire will be there but I doubt that I'll be able to bury it.
>
>Burying a grounding electrode conductor is normally a code requirement. But
>that is not what you have in connecting the tower ground system to the
>station ground, AC mains ground, etc. Those are bonding conductors, and they
>are in many cases required to be insulated. Not in this case, but I want you
>to understand the difference between grounding, voltage division from many
>grounds, and a bonding conductor between your station and the tower. The
>latter is to maintain equipotential, and will not carry more than just
>equalizing currents. It will be well within the capability of a #6 insulated
>wire, should you choose to use that. Personally I would go a little larger
>but #6 is as largest that NEC or NFPA recommend for a bond in *most* cases.
>So burying the bonding conductor is not a requirement, although to protect
>it that is exactly what most facilities do. Neither will burying coax
>feedlines help in lightning protection, unless you are counting on them by
>design to be grounding electrode conductors! Pretty foolish but heh, if
>someone tosses feedlines out a window, they may as well short them to a
>ground rod and "bring it on". In that case any more than about 5,000v will
>breakdown the dialectric both inside and outside the coax, and anything
>nearby may be the next target before it ever reaches the ground rod.
>

It doesn't matter what you want to call a ground conductor. The point
here is if it can carry any lightning current you are much better off
with it buried in the ground. A bare ground conductor making contact
with the soil acts like additional ground rods. Why would you not want
that?

Burying coax feed lines will help with lightning protection. It
greatly increases the inductance of the lines to lightning. It also
helps to dissipate the energy to ground by the coupling provided. (ie
you get less at the other end)

You can't help but view them as "grounding electrode conductors" as
you may want to call them. After all they are connected to the tower.
They are going to carry lightning current if you want them to or not.
Might as well let them dissipate part of the energy to earth.

A large part of the lightning is RF. You have to treat it as such.

A good lightning ground also makes a very good antenna ground system.
( buried radial system) Think in those terms.

73
Gary K4FMX

>> The good news is that the soil is eternally damp highly conductive
>> dark loam . .
>>
>> > Gary K4FMX
>
>That is very good news, and it makes your job easier. But good soil or poor
>soil, understanding what bonding provides is equally if not more important
>than having a ground rod at all. To rest on the laurels of highly conductive
>soil and ignore bonding, would be inviting disaster. Yes commercial tower
>design does require many shield "bonds" along the height of towers, but as I
>said, I applied a reasonable approach which the average short tower or
>mast-only owner could and would be likely to comply with - bonding at the
>top, bottom and station entrance. I suspect few go even that far.
>
>You may or may not be interested in all the surge protection diatribe in my
>website, but it's there because so many unfortunate souls were mislead in
>this area. I do think you might benefit from it's coverage of what bonding
>does to protect both you and your station, and it is a lot harder for most
>to get a hold of then simple mast or tower grounding. It doesn't have to be.
>
>http://members.cox.net/pc-usa/station/ground0.htm
>
>73,
>Jack Painter
>Virginia Beach, VA
>

# 2581. Re: It works! Sort of.....

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-22 17:32:55 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <op74q0p3ispu6olofe67no89be32m19tcb@4ax.com>
Source record: 86278

On Mon, 22 Nov 2004 05:40:51 -0600, "Ken Bessler"
<kg0wx@NOSPAMyahoo.com> wrote:

>What gets me is if this antenna performs so well on
>UHF

Hi Ken,

By this claim, so well in comparison to what?

>and the swr's are not too bad, then WHY doesn't
>Hustler advertise it as a dual band antenna?

This goes back to my first question. Matching is not the end-all,
be-all characteristic.

The antenna is 7' tall with a phasing lump probably up 18" or 20"
which provides a complex relationship with the remaining 5' or more.
At UHF, this combination of lengths/loading presents one incredibly
tall antenna that is several wavelengths overall. This would suggest
that favored UHF radiation is principally straight up. Of course, it
still radiates out toward the horizon, but in comparison, by far less.

Now, as to this advertising spec. of being 7' tall. That doesn't make
much sense given the description of 5/8ths above a quarter wave.
Those two figures alone add up to less than 7'. The phasing section
must be awfully long.

73's
Richard Clark, KB7QHC

# 2582. Re: Answer to Dipole Double-Resonance Problem

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-22 17:51:43 UTC
From: radio913@aol.com
Message-ID: <1d15af91.0411220951.f76d9b9@posting.google.com>
Source record: 86279

Richard Clark <kb7qhc@comcast.net> wrote in message
news:<enp2q0dtl8mvc6fvq895csln5vj0l75g8p@4ax.com>...
> On 21 Nov 2004 19:56:40 -0800, radio913@aol.com (Dr. Slick) wrote:
> > Bringing them closer together and
> >raising the height improved the SWR

Has absolutely nothing to do with:

> >and made the antenna resonant at
> >only one frequency within 88-108 MHz
>
> 73's
> Richard Clark, KB7QHC

God, you are truly lame.

Go try it yourself.

Slick

# 2583. Re: random wire antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-22 18:10:20 UTC
From: whru@msn.com
Message-ID: <e52bdeaf.0411221010.57d3b36@posting.google.com>
Source record: 86280

Thank you all for your help. I used Richards approach and Bingo all my problems went away.
73
Fred
wb6iiq

# 2584. Re: Facts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-22 18:13:00 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <cnta8g$ma5$1@news.service.uci.edu>
Source record: 86281

Gene Fuller wrote:

> Cecil,
>
> Nice try.
>> Here's the reference: From "Fields and Waves" by Ramo and Whinnery.
>> Take a close look at the exponential transmission line equations
>> for flat lines (no reflections):
>>
>> V = Vmax(e^-az)(e^wt-bz) (1)
>>
>> I = Vmax(e^-az)(e^wt-bz)/Z0 (2)
>>
>> 'a' (alpha) is the attenuation factor. The two equations are identical
>> except for the Z0 term. If you divide equation (1) by equation (2),
>> you get Z0. In a flat transmission line (no reflections) the current
>> is ALWAYS equal to the voltage divided by the characteristic impedance
>> of the transmission line. The voltage and current are attenuated by
>> EXACTLY the same factor. If the voltage drops because of I^2*R losses,
>> the current must decrease by exactly the same percentage. (I have avoided
>> calling it a current drop so it wouldn't upset you.)
>>
>> Since the attenuation factor is R/2*Z0 + G*Z0/2 and since, for most
>> transmission lines used on HF, R/2*Z0 >> G*Z0/2, the current attenuation
>> is caused by the series I^2*R drop in the voltage and the V/I=Z0 ratio
>> that must be maintained - pretty simple logic.

So Gene, you should have asked the question: if one has a circuit with a thousand resistors all connected in series and no current paths in shunt, how does one arrive at a different current through R1000 than through R1?

73, Jim AC6XG

# 2585. Re: Facts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-22 18:48:43 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <1pc4q01tqh5je6vt76jibimb2s8uuutbii@4ax.com>
Source record: 86282

On Mon, 22 Nov 2004 10:13:00 -0800, Jim Kelley <jwkelley@uci.edu>
wrote:

>So Gene, you should have asked the question: if one has a circuit with a
>thousand resistors all connected in series and no current paths in
>shunt, how does one arrive at a different current through R1000 than
>through R1?

Hi Jim,

In the vein of shouldaaskedquestions: If there are no current paths in
shunt, how do you get current? (Which leads us back to Reg's
observation about R and G).

73's
Richard Clark, KB7QHC

# 2586. Re: Facts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-22 18:56:42 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <cntcrd$nva$2@news.service.uci.edu>
Source record: 86284

Richard Clark wrote:

> On Mon, 22 Nov 2004 10:13:00 -0800, Jim Kelley <jwkelley@uci.edu>
> wrote:
>
>
>>So Gene, you should have asked the question: if one has a circuit with a
>>thousand resistors all connected in series and no current paths in
>>shunt, how does one arrive at a different current through R1000 than
>>through R1?
>
>
> Hi Jim,
>
> In the vein of shouldaaskedquestions: If there are no current paths in
> shunt, how do you get current? (Which leads us back to Reg's
> observation about R and G).
>
> 73's
> Richard Clark, KB7QHC

Roger that.

ac6xg

# 2587. FS or Trade TEL-EX LM 470 tower

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-22 18:58:10 UTC
From: wb4una@aol.com
Message-ID: <20041122135810.06404.00000946@mb-m18.aol.com>
Source record: 86283

this is a free standing crank up tower. It will hold 25 square at 70mph. It comes with coax arms,Hamm 4 rotor and contrl,and a thrust bearing. this tower is in great shape..It sells for $5400 alone. I will sell it all for $3500.00 ..I am in Columbia,SC and will take trades on this ..cars , trucks, or ham gear..

thanks randy

ARS: WB4UNA
Randy Chavis
247 Goff Court
West Columbia
S.C. 29172

# 2588. Re: It works! Sort of.....

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-22 19:10:15 UTC
From: dplatt@radagast.org
Message-ID: <10q4ecnt46p2bd8@corp.supernews.com>
Source record: 86285

In article <6fkod.1715$3I.569@okepread01>,
Ken Bessler <kg0wx@NOSPAMyahoo.com> wrote:

>Well, I finally got a SWR meter for UHF and put it
>on my 2 meter colinear base antenna. The antenna
>is a Hustler CG-144 with radial/mast mount kit. It's
>a 1/4 wave phased with a 5/8 wave. It's best VHF
>swr is 1.2:1 @ 144.900 mhz.
>
>I had tested it on 440 with my HT and it seemed to
>work so I got a SWR meter and tested it. My friend
>Dave KC0EMK also came over with his UHF ant
>analyzer.
>
>Both meters show a varying SWR around 1.8:1 with
>a dip to 1.1:1 @ 440.500 mhz. Coax is 37' of Flexi
>4XL with properly fitted PL-259's on each end.
>
>What gets me is if this antenna performs so well on
>UHF and the swr's are not too bad, then WHY doesn't
>Hustler advertise it as a dual band antenna?

Perhaps because SWR isn't everything!

I suspect that if you measure this antenna's pattern, or simulate in
in NEC or a similar software suite, you'll find that it has a lot of
high-angle radiation, and that its actual gain out towards the horizon
is not wonderful (may even be negative, measured in dBd).

It'd be embarrassing for Hustler to advertise it as a dual band
antenna, but have to quite gain figures on 440 which show that the
antenna performs worse than a simple quarter-wave-plus-radials ground
plane antenna.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

# 2589. Re: It works! Sort of.....

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-22 19:32:31 UTC
From: Ken Bessler <kg0wx@NOSPAMyahoo.com>
Message-ID: <m9rod.1740$3I.426@okepread01>
Source record: 86287

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:op74q0p3ispu6olofe67no89be32m19tcb@4ax.com...
> On Mon, 22 Nov 2004 05:40:51 -0600, "Ken Bessler"
> <kg0wx@NOSPAMyahoo.com> wrote:
>
>>What gets me is if this antenna performs so well on
>>UHF
>
> Hi Ken,
>
<snip>
> ..... The phasing section must be awfully long.
>
> 73's
> Richard Clark, KB7QHC

It's about 18" long.

As to the radiation pattern, you're probably quite
correct. Now it makes sense. As far as 2m goes,
it kicks ass - I'm hitting & hearing repeaters out
to 100 miles with no band conditions apparant.

I'm happy.

Ken KG0WX

# 2590. Re: Facts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-22 19:38:31 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41a23ae1$1_1@127.0.0.1>
Source record: 86286

Jim Kelley wrote:
> So Gene, you should have asked the question: if one has a circuit with a
> thousand resistors all connected in series and no current paths in
> shunt, how does one arrive at a different current through R1000 than
> through R1?

I've already explained that twice, Jim. Your circuit example above
bears no resemblance to the discussion of distributed networks
involving EM wave transmission lines with a fixed Z0. The Z0 of
a transmission line forces the ratio of voltage/current to be
equal to Z0. The voltage cannot change without a corresponding
change in the current. Even if there is no physical shunt path for
current, there is always a path for the H-field to supply energy
to the E-field and vice versa. If it will make you feel any better,
feel free to consider the Z0-fixing of the H-field and E-field ratio
to be a shunt path for the energy involved.

If your idealized circuit above is a transmission line with a constant
Z0, modeled as 1000 resistors in series, zero resistance in shunt,
and carrying EM waves, the source of the attenuation of the current
is clear. The voltage and current will be attenuated by exactly the
same percentage. That's why the attenuation factor is identical for
voltage and current in the exponential transmission line equations.

1. The series resistance causes a drop in voltage along with a
corresponding decrease in the amplitude of the E-field.

2. Since the ratio of the voltage to current is fixed by Z0, the
H-field decreases by exactly the same percentage as the E-field.

3. Since the H-field decreases by the same percentage as the E-field,
the current decreases by the same percentage as the voltage. That's
why the attenuation factor is identical for the voltage and current
for the exponential transmission line equations.

For the Nth time, the moral is: Don't be seduced by a circuit model
solution if it yields invalid results for a distributed network problem.

If your above idealized configuration is a circuit and not a distributed
network, then by all means, use circuit theory on it. But using a circuit
model solution for a distributed network problem is like using a DC ohm-meter
to measure the feedpoint impedance of an antenna. I trust you know enough
not to do that. :-)
--
73, Cecil http://www.qsl.net/w5dxp

## 2591. Re: It works! Sort of.....

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-22 19:42:29 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <93g4q0ds0cuu839b2o8ncusruc4al2pniq@4ax.com>
Source record: 86288

On Mon, 22 Nov 2004 13:32:31 -0600, "Ken Bessler"
<kg0wx@NOSPAMyahoo.com> wrote:
>It's about 18" long.
YOW!

# 2592. Re: DIY - Anyone built one of these - KIT : Deluxe Receiver HF Multicontroller (Multicoupler) Kit

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-22 20:37:33 UTC
From: Brian Hill <releif@last.net>
Message-ID: <dpsod.62$qF4.54@fe11.lga>
Source record: 86289
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew

Just from the looks of it. I would say it's quite a bit of equipment for the price if your willing to do the work.

--
73 and good DXing.
Brian
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
A lot of radios and 100' of rusty wire!
Zumbrota, Southern MN
Brian's Radio Universe
http://webpages.charter.net/brianhill/

EMAIL- brianehill@$100charter.net
(Hide the $100 to reply!)
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

## 2593. Beacons with a G5RV

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-22 20:51:57 UTC
From: Joel Kolstad <JKolstad71HatesSpam@Yahoo.Com>
Message-ID: <Y6-dnaCVKOfLzD_cRVn-jw@comcast.com>
Source record: 86290

I'm in Portland, Oregon, USA. Over the weekend I strung a G5RV horizonally about 15-20' off the ground -- it'll go higher once I have the hardware to do so, however. It's connected to an Icom IC-745. In general, it's working in that I can get pretty good reception on, e.g., 20m from the east coast. However, I don't seem to hear any of the beacon states on 14.1MHz. Should I be able to? It appears that the US beacon state (W6WX) is somewhere in California, which seems like it should be plenty close, at least with 100W (i.e., I should at least be able to here the callsigns and the first dash.)

I also have a shortwave receiver that came with a loop antenna. It's not quite as sensitive as the IC-745, and you need to put it into SSB mode and tune off-center to hear CW, but it wasn't picking up anything either.

---Joel Kolstad
KE7CDV

## 2594. Re: Beacons with a G5RV

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-22 21:01:33 UTC
From: Joel Kolstad <JKolstad71HatesSpam@Yahoo.Com>
Message-ID: <Y-SdnUdfFrcKzj_cRVn-qw@comcast.com>
Source record: 86291

P.S. -- The G5RV is connected directly to the radio; it doesn't go through a tuner.

# 2595. Re: Beacons with a G5RV

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-22 21:57:38 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <-d-dndvAKqRU_T_cRVn-rw@comcast.com>
Source record: 86293

"Joel Kolstad" <JKolstad71HatesSpam@Yahoo.Com> wrote in message
news:Y-SdnUdfFrcKzj_cRVn-qw@comcast.com...
> P.S. -- The G5RV is connected directly to the radio; it doesn't go through
> a tuner.
What time of day are you listening?

Tam/WB2TT

# 2596. Re: Beacons with a G5RV

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-22 22:08:15 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41a25df8$1_4@127.0.0.1>
Source record: 86292

Joel Kolstad wrote:

> I'm in Portland, Oregon, USA. Over the weekend I strung a G5RV horizonally
> about 15-20' off the ground -- it'll go higher once I have the hardware to
> do so, however. It's connected to an Icom IC-745. In general, it's working
> in that I can get pretty good reception on, e.g., 20m from the east coast.
> However, I don't seem to hear any of the beacon states on 14.1MHz. Should I
> be able to? It appears that the US beacon state (W6WX) is somewhere in
> California, which seems like it should be plenty close, at least with 100W
> (i.e., I should at least be able to here the callsigns and the first dash.)

What you hear depends on the shortwave skip conditions. Very often,
you will be able to hear the East Coast and not hear California.
The ARRL has a new Shortwave Propagation Handbook. Here's some
more information: http://dzabcik.home.texas.net/propagation.html
--
73, Cecil http://www.qsl.net/w5dxp

# 2597. Zo and Ro

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-22 22:08:29 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cnto0t$40h$1@sparta.btinternet.com>
Source record: 86294

Not having much else to do at present I thought I would make a comment on Zo and Ro of transmission lines. For entertainment and educational value, of course, if you like that sort of thing.

The condition for which Zo of a transmission line is always purely resistive (Zo = Ro) is extremely simple. It is -

G = C * R / L

where G is shunt conductance, C is shunt capacitance, R is series resistance, L is series inductance, all per unit length of line.

Which applies to any line length, at any frequency from DC to UHF.

It is a shortcoming of the Smith Chart, with Zo always equal to Ro, that it does not make you aware of this and can lead you up the garden path if you are not careful. As has recently occurred on this newsgroup.

Don't get me wrong. I'm not against Smith Charts. They are graphically educational within their limitations.
----
Reg, G4FGQ

# 2598. Re: Corrosive protection for ground radial plate?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-22 22:59:20 UTC
From: Bob McConnell <rmcconne@NOSPAM.lightlink.com>
Message-ID: <20r4q0t8dk9g73kdeqrm3p4u4mg55r90ms@4ax.com>
Source record: 86295

On Sun, 21 Nov 2004 23:43:39 +0000, "Ian White, G3SEK"
<G3SEK@ifwtech.co.uk> wrote:

>Jim Keller wrote:
>>
>>Question is, what have others done to prevent antenna connections, such
>>as ground radials from corrosion at their points of contact?
>>
>With copper wires soldered to a copper pipe busbar, I used several coats
>of clear polyurethane spray lacquer. Five years later, it looks like
>new.
>
>Anything that will keep the water out of the joint between the two
>different metals will do fine. The advantage of clear lacquer is that
>you can see what condition it's in without disturbing anything.
>
>
>>I live about 5 miles from the Ocean and the vertical is located on a
>>slope that gets watered at least once a week.
>>
>I live in England. The whole country gets watered, several times a week.

Hi Jim,

The major corrosion problems occur when you mate dissimilar metals.
Copper to aluminum is probably the worst in my experience. Here in the
states, we mixed copper and aluminum wiring in houses for a while in
the 60's and 70's, before AL wire was completely outlawed. There were
two fixes developed to control the corrosion. One was a special alloy
for all fittings, screws, clamps, etc. that might came in contact with
either or both metals. I still see electrical hardware marked CU/AL to
indicate it is made from that alloy. Then a paste was developed that
would prevent the oxidation from occuring. All points where both
metals came together were coated with it, before and after assembly.

There are other combinations, some of which have galvanic properties.
There are anti-seize and other pastes to deal with some of those.
Sometimes, all you need is a good silicon based lube, liberally
applied and wrapped with shrink wrap and electrical tape to keep the
rain out.

Bob McConnell
N2SPP

# 2599. Re: Home brew antenna for FCC Part 15 screening?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-22 23:03:37 UTC
From: Bob McConnell <rmcconne@NOSPAM.lightlink.com>
Message-ID: <c0s4q01gm1pjucnalh300dr9e19vn0k10f@4ax.com>
Source record: 86296

On Mon, 22 Nov 2004 00:42:57 -0800, "Ed Price" <edprice@cox.net>
wrote:

>
>"Mike" <bsd_mike@hotmail.com> wrote in message
>news:b2809f59.0411210545.4bb1b571@posting.google.com...
>>I know this is not exactly the group to post in, but I thought
>> radio amateurs would have the best ideas for making one's own
>> antenna. I apologize if this question bothers anybody.
>>
>> I just spent $800 at an EMC test lab to screen my device for
>> part 15 compliance. The used a Biconical antenna and a spectrum
>> analyzer to measure emissions from my device. I was wondering
>> how inexpensively I could I make my own system for screening?
>>
>> How hard would it be to make half way decent antenna or antennas that
>> could listen to a broad spectrum?
>>
>> Any websites out there have tips on making antennas?
>>
>> Thanks a lot for your help.
>> -Mike Dorin
>
>
>$800 is about 1/2 day of test time at a typical EMC lab. If you got a
>conducted emission test, a radiated emission pre-scan in a shielded
>enclosure, a diagnosis of the failure, amelioration of the problem, and a
>radiated emission test on an OATS, all for $800, I suggest you buy a lottery
>ticket tomorrow, cause you're on a roll!
>
>Ed
>wb6wsn

Our last test run cost us US$2200. That did not include the
preliminary scans, nor the consulting time to correct the problem
uncovered in them. Just so we could ship three units into Canada.

Bob McConnell
N2SPP

# 2600. Re: Cobra UltraLite Multi-band Antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-22 23:08:32 UTC
From: Frank <ve6cb@NOSPAM.telus.net>
Message-ID: <Qjuod.201046$9b.51653@edtnps84>
Source record: 86297

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:peo2q09dlju5mjhdbqh33ktlvji7gvrkt1@4ax.com...
> On Mon, 22 Nov 2004 01:52:00 GMT, "Frank" <ve6cb@NOSPAM.telus.net>
> wrote:
>>Note that a 140 ft dipole resonates at 3.34 MHz.
>
> Hi Frank,
>
> I also note that the "Cobra" doubles the number of resonances across
> the 2 to 30 MHz spectrum with the resonances coming in adjacent pairs.
> Our sometime correspondent, Dr. Slick, thinks he invented this
> characteristic with his mystery, garden variety dipole; but it is a
> simple matter of putting a bend in the wire.
>
> This one manipulation was also the foundation of the "fractal"
> antenna, but "scientists" gushed on with baroque explanations and
> hyperbolic claims to disguise a rather mundane oddity.
>
> 73's
> Richard Clark, KB7QHC

Hi Richard:

Here, below, are the data from a 140 ft "Cobra" type antenna compared with a 140 ft dipole. I modeled #24 AWG, spaced 1", with 1" segments. My previous comment about 2000 segments maximum was incorrect, and NEC can go to 10,000 segments. As it is, the model contained over 5,000 segments, and took almost 2 hours to run. The NEC output file contained about 250,000 lines of data in a 14.5 MB text file. While the 1" segmentation is well below the minimum lambda/1000 recommended by the NEC manual, a transmission line with similar dimensions gave results very close to the expected value of 550 Ohms. These results could therefore be considered as a reasonable validation of the antenna model. Not sure why EZNEC cannot deal with such a model.

From an operational point of view there seems to be very little difference between a 140 ft "Cobra" antenna, and a 140 ft dipole. On some frequencies it is noted that the Cobra exhibits a lower efficiency.

The data are noticeably different from your results (note that at 2 MHz both our results show an imaginary part of >0), but probably due to the large difference in dimensions. I was not able to verify the number of resonances due to the very long run times. If I had attempted 0.2 MHz steps the program would have run for 8 to 10 hours and generated over a million lines of output data. I think what I need is 64 bit dual processor system to

tackle such a problem.

Most of the claims I have read on e-ham.net can be considered as unverifiable nonsense. I certainly agree with your comments on the design. As for "fractal" antennas, I do not really know anything about them, so cannot comment.

One thing that does come out of this modeling is that an antenna does not have to be very much longer than a 1/4 wave long to provide reasonable input impedances.

Incidentally my model was run in free space, so have no data on take-off angle. I doubt it would be very different.

73,

Frank

Cobra
140 ft Dipole

Frequency Real(Z) Imag(Z) Efficiency Real(Z)
Imag(Z) Efficiency
(MHz) (Ohms) (Ohms) (%) (Ohms)
(Ohms) ( %)

2 71.216 201.878 36
18 -737.554 98

4 140.456 810.61 66 125.32
272.626 99

5 511.886 -23.295 92 359.372
872.604 99.6

7 1889.15 -1965.46 98
2670.88 -2355.48 99.6

10 137.527 -758.652 46
90.313 -165.43 99

14 1465.88 -1284.19 97
2158.99 -1485.13 99.6

18 233.57 679.892 65 180.16
224.359 99.2

21 1272.82 -1009.83 97
1926.04 -1113.17 99.5

24 217.887 -864.421 36
120.373 -159.68 98.9

28 1155.79 -852.805 97
1783.27 -886.08 99.5

# 2601. Re: Cobra UltraLite Multi-band Antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-22 23:14:48 UTC
From: Frank <ve6cb@NOSPAM.telus.net>
Message-ID: <lpuod.201171$9b.38564@edtnps84>
Source record: 86298

Sorry the posting totally mangled my table. Hope you can make sense of it!

Frank

"Frank" <ve6cb@NOSPAM.telus.net> wrote in message
news:Qjuod.201046$9b.51653@edtnps84...
>
> "Richard Clark" <kb7qhc@comcast.net> wrote in message
> news:peo2q09dlju5mjhdbqh33ktlvji7gvrkt1@4ax.com...
>> On Mon, 22 Nov 2004 01:52:00 GMT, "Frank" <ve6cb@NOSPAM.telus.net>
>> wrote:
>>>Note that a 140 ft dipole resonates at 3.34 MHz.
>>
>> Hi Frank,
>>
>> I also note that the "Cobra" doubles the number of resonances across
>> the 2 to 30 MHz spectrum with the resonances coming in adjacent pairs.
>> Our sometime correspondent, Dr. Slick, thinks he invented this
>> characteristic with his mystery, garden variety dipole; but it is a
>> simple matter of putting a bend in the wire.
>>
>> This one manipulation was also the foundation of the "fractal"
>> antenna, but "scientists" gushed on with baroque explanations and
>> hyperbolic claims to disguise a rather mundane oddity.
>>
>> 73's
>> Richard Clark, KB7QHC
>
> Hi Richard:
>
> Here, below, are the data from a 140 ft "Cobra" type antenna compared with
> a 140 ft dipole. I modeled #24 AWG, spaced 1", with 1" segments. My
> previous comment about 2000 segments maximum was incorrect, and NEC can go
> to 10,000 segments. As it is, the model contained over 5,000 segments,
> and took almost 2 hours to run. The NEC output file contained about
> 250,000 lines of data in a 14.5 MB text file. While the 1" segmentation
> is well below the minimum lambda/1000 recommended by the NEC manual, a
> transmission line with similar dimensions gave results very close to the
> expected value of 550 Ohms. These results could therefore be considered
> as a reasonable validation of the antenna model. Not sure why EZNEC
> cannot deal with such a model.
>
> From an operational point of view there seems to be very little difference
> between a 140 ft "Cobra" antenna, and a 140 ft dipole. On some
> frequencies it is noted that the Cobra exhibits a lower efficiency.

>
> The data are noticeably different from your results (note that at 2 MHz
> both our results show an imaginary part of >0), but probably due to the
> large difference in dimensions. I was not able to verify the number of
> resonances due to the very long run times. If I had attempted 0.2 MHz
> steps the program would have run for 8 to 10 hours and generated over a
> million lines of output data. I think what I need is 64 bit dual
> processor system to tackle such a problem.
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> unverifiable nonsense. I certainly agree with your comments on the
> design. As for "fractal" antennas, I do not really know anything about
> them, so cannot comment.
>
> One thing that does come out of this modeling is that an antenna does not
> have to be very much longer than a 1/4 wave long to provide reasonable
> input impedances.
>
> Incidentally my model was run in free space, so have no data on take-off
> angle. I doubt it would be very different.
>
> 73,
>
> Frank
>
> Cobra 140 ft Dipole
>
> Frequency Real(Z) Imag(Z) Efficiency Real(Z) Imag(Z)
> Efficiency
> (MHz) (Ohms) (Ohms) (%) (Ohms) (Ohms)
> ( %)
>
> 2 71.216 201.878 36
> -737.554 98
>
> 4 140.456 810.61 66 125.32
> 272.626 99
>
> 5 511.886 -23.295 92 359.372
> 872.604 99.6
>
> 7 1889.15 -1965.46 98 2670.88 -2355.48
> 99.6
>
> 10 137.527 -758.652 46 90.313 -165.43
> 99
>
> 14 1465.88 -1284.19 97 2158.99 -1485.13
> 99.6
>

> 18 233.57 679.892 65 180.16
> 224.359 99.2
>
> 21 1272.82 -1009.83 97 1926.04 -1113.17
> 99.5
>
> 24 217.887 -864.421 36 120.373 -159.68
> 98.9
>
> 28 1155.79 -852.805 97 1783.27 -886.08
> 99.5
>
>

# 2602. Re: Cobra UltraLite Multi-band Antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-22 23:21:42 UTC
From: Frank <ve6cb@NOSPAM.telus.net>
Message-ID: <awuod.201317$9b.67901@edtnps84>
Source record: 86299

Hope this takes.

Cobra

140 ft

Dipole

Freq
Real(Z)
Imag(Z)
Effic.

Real(Z)
Imag(Z)
Effic.

(MHz)
(Ohms)
(Ohms)
(%)

(Ohms)
(Ohms)
(%)

2
71.216
201.878
36

18
-737.554
98

3
73.642
-739.734
48

49.674
-187.133
99

4
140.456
810.61
66

125.316
272.626
99

5
511.886
-23.295
92

359.372
872.604
99.6

6
2037.1
1338.68
98

1703.27
1920.29
99.6

7
1889.15
-1965.46
98

2670.88
-2355.48
99.6

8
360.527
-883.538
95

386.627
-1317.9
99.5

9
210.534
335.666
66

120.872
-612.692
99

10
137.527
-758.652
46

```
90.313
-165.43
99

11
200.483
745.675
65

162.888
245.318
99.3

12
667.945
-227.887
88

445.569
761.23
99.5

13
1909.02
495.723
98

1731.71
1264.06
99.6

14
1465.88
-1284.19
97

2158.99
-1485.13
99.6

15
420.445
-702.206
94

480.54
-1146.59
99.4

16
262.167
351.518
68
```

160.095
-571.729
99.1

17
179.365
-805.276
41

108.406
-160.543
98.9

18
233.57
679.892
65

180.16
224.359
99.2

19
738.875
-403.274
84

475.49
680.908
99.4

20
1672.34
161.044
97

1600.16
956.134
99.5

21
1272.82
-1009.83
97

1926.04
-1113.17
99.5

22
446.859
-602.938
94

```
535.332
-1046.12
99.4

23
292.315
343.8
68

186.145
-548.33
99.1

24
217.887
-864.421
36

120.373
-159.68
98.9

25
254.772
616.713
65

189.942
206.712
99.1

26
780.961
-560.921
80

484.297
619.346
99.4

27
1486.49
-2.009
97

1470.6
788.478
99.5

28
1155.79
-852.805
97
```

1783.27
-886.08
99.5

29
462.468
-537.593
94

576.247
-974.605
99.4

"Frank" <ve6cb@NOSPAM.telus.net> wrote in message
news:Ipuod.201171$9b.38564@edtnps84...
> Sorry the posting totally mangled my table. Hope you can make sense of
> it!
>
> Frank
>
>
> "Frank" <ve6cb@NOSPAM.telus.net> wrote in message
> news:Qjuod.201046$9b.51653@edtnps84...
>>
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>> news:peo2q09dlju5mjhdbqh33ktlvji7gvrkt1@4ax.com...
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>>> hyperbolic claims to disguise a rather mundane oddity.
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>> input impedances.
>>
>> Incidentally my model was run in free space, so have no data on take-off
>> angle. I doubt it would be very different.
>>
>> 73,
>>
>> Frank
>>
>> Cobra 140 ft Dipole
>>
>> Frequency Real(Z) Imag(Z) Efficiency Real(Z) Imag(Z)
>> Efficiency
>> (MHz) (Ohms) (Ohms) (%) (Ohms) (Ohms) (
>> %)
>>
>> 2 71.216 201.878 36 -737.554 98
>>
>> 4 140.456 810.61 66 125.32
>> 272.626 99
>>
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>>

>> 7 1889.15 -1965.46 98 2670.88 -2355.48
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>>
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>> 99
>>
>> 14 1465.88 -1284.19 97 2158.99 -1485.13
>> 99.6
>>
>> 18 233.57 679.892 65 180.16
>> 224.359 99.2
>>
>> 21 1272.82 -1009.83 97 1926.04 -1113.17
>> 99.5
>>
>> 24 217.887 -864.421 36 120.373 -159.68
>> 98.9
>>
>> 28 1155.79 -852.805 97 1783.27 -886.08
>> 99.5
>>
>>
>
>

# 2603. Re: Zo and Ro

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-22 23:41:19 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41a27721$1_2@127.0.0.1>
Source record: 86300

Reg Edwards wrote:
> The condition for which Zo of a transmission line is always purely resistive
> (Zo = Ro) is extremely simple. It is -
>
> G = C * R / L

Wonder why Ramo and Whinnery say that's an approximation for low-loss
lines? If the R+jwL angle is equal to the G+jwC angle, doesn't that
make Z0 purely resistive?
--
73, Cecil http://www.qsl.net/w5dxp

# 2604. Re: Answer to Dipole Double-Resonance Problem

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-23 00:24:51 UTC
From: radio913@aol.com
Message-ID: <1d15af91.0411221624.4d78530b@posting.google.com>
Source record: 86301

"Tam/WB2TT" <t-tammaru@c0mca$t.net> wrote in message
news:<O6Odnez13anamz_cRVn-uA@comcast.com>...
>
> Did you measure the original distance tip-to-tip, or did you measure 2X the
> length of one side independent of the spacing in the middle?
>
> Tam/WB2TT

I'm not sure what you mean here.

I made sure that the end-to-end length of
each 1/4 wavelength section was the same
size for each section of the dipole. We
use aluminum tubing and hoseclamps for
adjusting the length.

But when i adjusted the space between
the two sections, the length of each
section was NOT changed.

And yet the SWR improved, and
there was a single resonance between
88-108 Megs, as it should normally be.

Slick

# 2605. Re: Single ground

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-23 00:26:16 UTC
From: Jack Painter <223bthp@cox.net>
Message-ID: <Jsvod.15580$D26.3934@lakeread03>
Source record: 86302

"Gary Schafer" <gaschafer@comcast.net> wrote
> It doesn't matter what you want to call a ground conductor. The point
> here is if it can carry any lightning current you are much better off
> with it buried in the ground. A bare ground conductor making contact
> with the soil acts like additional ground rods. Why would you not want
> that?
>
> Burying coax feed lines will help with lightning protection. It
> greatly increases the inductance of the lines to lightning. It also
> helps to dissipate the energy to ground by the coupling provided. (ie
> you get less at the other end)
>
> You can't help but view them as "grounding electrode conductors" as
> you may want to call them. After all they are connected to the tower.
> They are going to carry lightning current if you want them to or not.
> Might as well let them dissipate part of the energy to earth.
>
> A large part of the lightning is RF. You have to treat it as such.
>
> A good lightning ground also makes a very good antenna ground system.
> ( buried radial system) Think in those terms.
>
> 73
> Gary K4FMX

Hi Gary, the coax feedlines are definitely NOT grounding electrode conductors. Not only are they incapable of such by design and accordingly not authorized as grounding conductors, but they could never remain connected to sensitive equipment if it were so. Neither is the shielding on coax sufficient to provide equipotential bonding so they are not allowable bonding conductors either. If anyone wants to sacrifice their coax by not properly shield-grounding and installing the appropriate number of coax lightning arrestors (this means on the tower also) then they will turn them into very ineffective grounding conductors. Burying might help then, but only because you could guarantee a breakdown in the dialectric and where safer to have that happen than underground. I understand many operators allow this and simply toss them out the window, or ground them before a storm, but there is no good reason for it. Proper installation can allow them to remain connected to the equipment without sacrificing the coax or the equipment. Burying coax does not prevent induction by either capacitive or magnetic induction onto the shields of the coax from a nearby strike. If coax were enclosed in metal conduit that was grounded at each end, there would be protection from this. But proper installation of shield grounding and surge suppression at both ends maintains safe levels of energy on the

feedline and allows its connection to sensitive equipment.Of course in rare cases there is sufficient energy (such as a 200Ka+ return stroke current) to overcome any level of protection. But protected stations will certainly fare a lot better in those rare events than the unprotected ones.

73,
Jack Painter
Virginia Beach VA

# 2606. Re: Corrosive protection for ground radial plate?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-23 00:32:55 UTC
From: Jack Painter <223bthp@cox.net>
Message-ID: <Xyvod.15582$D26.521@lakeread03>
Source record: 86303

"Bob McConnell" <rmcconne@NOSPAM.lightlink.com> wrote
> The major corrosion problems occur when you mate dissimilar metals.
> Copper to aluminum is probably the worst in my experience. Here in the
> states, we mixed copper and aluminum wiring in houses for a while in
> the 60's and 70's, before AL wire was completely outlawed. There were
> two fixes developed to control the corrosion. One was a special alloy
> for all fittings, screws, clamps, etc. that might came in contact with
> either or both metals. I still see electrical hardware marked CU/AL to
> indicate it is made from that alloy. Then a paste was developed that
> would prevent the oxidation from occuring. All points where both
> metals came together were coated with it, before and after assembly.
>
> There are other combinations, some of which have galvanic properties.
> There are anti-seize and other pastes to deal with some of those.
> Sometimes, all you need is a good silicon based lube, liberally
> applied and wrapped with shrink wrap and electrical tape to keep the
> rain out.
>
> Bob McConnell
> N2SPP

Hi Bob, a caution to anyone using silicone for any part of a grounding or bonding connection: silicone is a dialectric, and is not appropriate for anything other than an outer component of waterproofing - which I gather you meant but might have confused some folks. The copper pastes (or alloy mixtures) which you mentioned are the appropriate internal and external coatings for electrical connections in lightning protection systems - which any ground radial system is also providing. These are available at most electrical supply companies.

73,
Jack Painter
Virginia Beach VA

# 2607. Re: Cobra UltraLite Multi-band Antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-23 01:00:07 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <hm05q05ha3rb3fmraaanl52mvgulel6uf5@4ax.com>
Source record: 86304

On Mon, 22 Nov 2004 23:08:32 GMT, "Frank" <ve6cb@NOSPAM.telus.net>
wrote:

>Hi Richard:
>
>Here, below, are the data from a 140 ft "Cobra" type antenna compared with a
>140 ft dipole. I modeled #24 AWG, spaced 1", with 1" segments. My
>previous comment about 2000 segments maximum was incorrect, and NEC can go
>to 10,000 segments. As it is, the model contained over 5,000 segments, and
>took almost 2 hours to run. The NEC output file contained about 250,000
>lines of data in a 14.5 MB text file. While the 1" segmentation is well
>below the minimum lambda/1000 recommended by the NEC manual, a transmission
>line with similar dimensions gave results very close to the expected value
>of 550 Ohms. These results could therefore be considered as a reasonable
>validation of the antenna model. Not sure why EZNEC cannot deal with such a
>model.

Hi Frank,

Well, your segmentation at one inch intervals over 420 feet of wire
seems rather over-the-top, but I suppose you arrived at that through
your transmission line modeling. Perhaps I should attempt that myself
in my own TL models.

EZNEC, itself, offers segmentation and geometry tests and where there
are issues it will remedy them itself. For this turn in the road I am
simply the loose nut behind the steering wheel. The first pass I
offered here (that brought EZNEC to its knees) consisted of only 263
segments. I then spread the wires out to accommodate those issues
EZNEC reported but would not correct of its own volition.

Were your wires as close as conventional 3-wire zip cord?

>From an operational point of view there seems to be very little difference
>between a 140 ft "Cobra" antenna, and a 140 ft dipole. On some frequencies
>it is noted that the Cobra exhibits a lower efficiency.

No doubt from one proximal wire bucking the other.

>The data are noticeably different from your results (note that at 2 MHz both
>our results show an imaginary part of >0), but probably due to the large
>difference in dimensions.

I would offer more likely due to nearby embrace of earth.

>I was not able to verify the number of resonances
>due to the very long run times. If I had attempted 0.2 MHz steps the

>program would have run for 8 to 10 hours and generated over a million lines
>of output data. I think what I need is 64 bit dual processor system to
>tackle such a problem.
>
>Most of the claims I have read on e-ham.net can be considered as
>unverifiable nonsense. I certainly agree with your comments on the design.
>As for "fractal" antennas, I do not really know anything about them, so
>cannot comment.

Consult:
http://www.qsl.net/kb7qhc/antenna/fractal/Triadic%20Koch/review.htm
for one small sample from many hundred pages of results.

>One thing that does come out of this modeling is that an antenna does not
>have to be very much longer than a 1/4 wave long to provide reasonable input
>impedances.
>
>Incidentally my model was run in free space, so have no data on take-off
>angle. I doubt it would be very different.
>
>73,
>
>Frank
>
> Cobra 140 ft Dipole
>
>Frequency Real(Z) Imag(Z) Efficiency Real(Z) Imag(Z) Efficiency
>(MHz) (Ohms) (Ohms) (%) (Ohms) (Ohms) ( %)
>
>2 71.216 201.878 36 18 -737.554 98
mine 12 +j550 Ohms
>14 1465.88 -1284.19 97 2158.99 -1485.13 99.6
mine 440 -j610
>21 1272.82 -1009.83 97 1926.04 -1113.17 99.5
mine 420 -j520

It appears that your reader, Outlook Express (a piece of software crap
by the way) is line length limited. Comparisons were difficult at
best so I confined them to those above. I was going to do a
side-by-side comparison with the same 140' dipole, but it was
unremarkable when earth dominates the drive point Z.

Another explanation for variations may be simply found in the high
degree of Z variation across frequency, we do agree on the imaginary
sign and the values do track in the higher bands.

73's
Richard Clark, KB7QHC

# 2608. Re: Zo and Ro

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-23 01:24:37 UTC
From: w9dmk@crosslink.net
Message-ID: <41a28fc8.9908727@news.crosslink.net>
Source record: 86305

On Mon, 22 Nov 2004 22:08:29 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>
>Not having much else to do at present I thought I would make a comment on Zo
>and Ro of transmission lines. For entertainment and educational value, of
>course, if you like that sort of thing.
>
>The condition for which Zo of a transmission line is always purely resistive
>(Zo = Ro) is extremely simple. It is -
>
>G = C * R / L
>
>where G is shunt conductance, C is shunt capacitance, R is series
>resistance, L is series inductance, all per unit length of line.
>
>Which applies to any line length, at any frequency from DC to UHF.
>
>It is a shortcoming of the Smith Chart, with Zo always equal to Ro, that it
>does not make you aware of this and can lead you up the garden path if you
>are not careful. As has recently occurred on this newsgroup.
>
>Don't get me wrong. I'm not against Smith Charts. They are graphically
>educational within their limitations.
>----
>Reg, G4FGQ

Dear Reg,

You say that it is a shortcoming of the Smith Chart that Zo equals Ro.
However, I think that is either a misunderstanding or just misleading.
The Smith Chart only constrains the normalizing quantity to be purely
resistive - not the characteristic impedance of a particular
transmission line being shown on that chart. My program, SmartSmith,
for example, allows the user to specify both an Ro and an Xo term for
all transmission line sections.

When it's all said and done, the Smith Chart only implements the
transmission line equation (as shown on pages 24-10 and 27-29 in the
17th Edition of The ARRL Antenna Book).

With my respects and best wishes,

Bob, W9DMK, Dahlgren, VA
http://www.qsl.net/w9dmk

## 2609. Re: Single ground

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-23 01:26:06 UTC
From: Gary Schafer <gaschafer@comcast.net>
Message-ID: <3645q097e2du27ove89ngk579odv84j1kp@4ax.com>
Source record: 86306

On Mon, 22 Nov 2004 19:26:16 -0500, "Jack Painter" <223bthp@cox.net>
wrote:

>"Gary Schafer" <gaschafer@comcast.net> wrote
> > It doesn't matter what you want to call a ground conductor. The point
>> here is if it can carry any lightning current you are much better off
>> with it buried in the ground. A bare ground conductor making contact
>> with the soil acts like additional ground rods. Why would you not want
>> that?
>>
>> Burying coax feed lines will help with lightning protection. It
>> greatly increases the inductance of the lines to lightning. It also
>> helps to dissipate the energy to ground by the coupling provided. (ie
>> you get less at the other end)
>>
>> You can't help but view them as "grounding electrode conductors" as
>> you may want to call them. After all they are connected to the tower.
>> They are going to carry lightning current if you want them to or not.
>> Might as well let them dissipate part of the energy to earth.
>>
>> A large part of the lightning is RF. You have to treat it as such.
>>
>> A good lightning ground also makes a very good antenna ground system.
>> ( buried radial system) Think in those terms.
>>
>> 73
>> Gary K4FMX
>
>Hi Gary, the coax feedlines are definitely NOT grounding electrode
>conductors. Not only are they incapable of such by design and accordingly
>not authorized as grounding conductors, but they could never remain
>connected to sensitive equipment if it were so. Neither is the shielding on
>coax sufficient to provide equipotential bonding so they are not allowable
>bonding conductors either. If anyone wants to sacrifice their coax by not
>properly shield-grounding and installing the appropriate number of coax
>lightning arrestors (this means on the tower also) then they will turn them
>into very ineffective grounding conductors. Burying might help then, but
>only because you could guarantee a breakdown in the dialectric and where
>safer to have that happen than underground. I understand many operators
>allow this and simply toss them out the window, or ground them before a
>storm, but there is no good reason for it. Proper installation can allow
>them to remain connected to the equipment without sacrificing the coax or
>the equipment. Burying coax does not prevent induction by either capacitive
>or magnetic induction onto the shields of the coax from a nearby strike. If

>coax were enclosed in metal conduit that was grounded at each end, there
>would be protection from this. But proper installation of shield grounding
>and surge suppression at both ends maintains safe levels of energy on the
>feedline and allows its connection to sensitive equipment.Of course in rare
>cases there is sufficient energy (such as a 200Ka+ return stroke current) to
>overcome any level of protection. But protected stations will certainly fare
>a lot better in those rare events than the unprotected ones.
>
>73,
>Jack Painter
>Virginia Beach VA
>

What isolates the shield of the coax from carrying current?
As long as it is connected to the tower at one end it is going to have strike current on it whether you want it there or not. Nothing you can do about it. Paralleling other conductors will reduce it's total current but you still have to deal with it on the coax line.

If you don't want to call the coax shield a grounding conductor that's ok but that won't stop the current on it.

Who told you that you should put lightning protectors at the tower as well as at the building entrance? What good do you think they do at the tower other than cost more money?

If you use a radial system for a ground at the tower or several ground rods, the coax run under ground can do the same thing as a radial as far as dissipating part of the energy. Having a buried radial rather than one run in the air lets the ground soak up a lot more energy if it is buried. There will be much less energy at the far end of a buried radial than one run in the air. A radial run in the air will dissipate little energy to the ground.

With buried coax the ground acts like a large choke on the cable also. Exactly what you want. The ground increases the cables natural inductance.

This is the same reason that long radials are not as effective as more shorter ones in dissipating lightning energy. The inductance of the long wire gets too high and becomes less effective as a conductor.

If you don't think that buried cables helps reduce lightning energy at the other end try running a single insulated feed wire for your long wire antenna underground. See how much attenuation it provides to the signals.
Burying the coax does the same thing for part of the lightning energy.

73
Gary K4FMX

# 2610. Re: MUFF

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-23 01:44:36 UTC
From: Howard <mensch90249@yahoo.com>
Message-ID: <ef55q0pnmsjcntngk8pe393cg4uto3rhrj@4ax.com>
Source record: 86307

On Mon, 22 Nov 2004 07:14:40 -0600, Cecil Moore <w5dxp@hotmail.com>
wrote:

>Mark wrote:
>> Nobody here heard of Muff Diving?
>
>As a joke, I scratched out the word "Scuba" on my
>Scuba Diver qualification card and wrote "Muff" over
>it. The checkout lady at the Scuba Diving place looked
>at it and blew me away when she said, "Care to demonstrate
>your technique?"

And did you???

# 2611. Re: Zo and Ro

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-23 01:48:38 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <WFwod.49197$7i4.35306@bgtnsc05-news.ops.worldnet.att.net>
Source record: 86308

Cecil,

Try it.

I believe you will find that your equality requirement on angles reduces
to precisely the simple equation offer by Reg.

73,
Gene
W4SZ

Cecil Moore wrote:
> Reg Edwards wrote:
>
>> The condition for which Zo of a transmission line is always purely
>> resistive
>> (Zo = Ro) is extremely simple. It is -
>>
>> G = C * R / L
>
>
> Wonder why Ramo and Whinnery say that's an approximation for low-loss
> lines? If the R+jwL angle is equal to the G+jwC angle, doesn't that
> make Z0 purely resistive?
> --
> 73, Cecil http://www.qsl.net/w5dxp

# 2612. Re: Facts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-23 01:58:22 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <2Pwod.957031$Gx4.469365@bgtnsc04-news.ops.worldnet.att.net>
Source record: 86309

Jim,

I have conceded. I simply do not know how to deal with someone who uses models to prove that models are misleading. Cecil's "reality", wherever that comes from, trumps all.

I have not measured transmission lines in the vacuum of free space, so I must rely on models. Since Cecil claims some sort of devine connection to model-less reality he clearly must be correct. (Probably explains his intimate knowledge of reality in the vacuum of free space.)

73,
Gene
W4SZ

Jim Kelley wrote:

>
>
> Gene Fuller wrote:
>
>> Cecil,
>>
>> Nice try.
>>
>>> Here's the reference: From "Fields and Waves" by Ramo and Whinnery.
>>> Take a close look at the exponential transmission line equations
>>> for flat lines (no reflections):
>>>
>>> V = Vmax(e^-az)(e^wt-bz) (1)
>>>
>>> I = Vmax(e^-az)(e^wt-bz)/Z0 (2)
>>>
>>> 'a' (alpha) is the attenuation factor. The two equations are identical
>>> except for the Z0 term. If you divide equation (1) by equation (2),
>>> you get Z0. In a flat transmission line (no reflections) the current
>>> is ALWAYS equal to the voltage divided by the characteristic impedance
>>> of the transmission line. The voltage and current are attenuated by
>>> EXACTLY the same factor. If the voltage drops because of I^2*R losses,
>>> the current must decrease by exactly the same percentage. (I have
>>> avoided
>>> calling it a current drop so it wouldn't upset you.)
>>>
>>> Since the attenuation factor is R/2*Z0 + G*Z0/2 and since, for most
>>> transmission lines used on HF, R/2*Z0 >> G*Z0/2, the current attenuation
>>> is caused by the series I^2*R drop in the voltage and the V/I=Z0 ratio

>>> that must be maintained - pretty simple logic.
>
>
> So Gene, you should have asked the question: if one has a circuit with a
> thousand resistors all connected in series and no current paths in
> shunt, how does one arrive at a different current through R1000 than
> through R1?
>
> 73, Jim AC6XG
>

# 2613. Re: Zo and Ro

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-23 02:15:39 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41a29b4c$1_3@127.0.0.1>
Source record: 86310

Gene Fuller wrote:
> Try it.
>
> I believe you will find that your equality requirement on angles reduces
> to precisely the simple equation offer by Reg.

Exactly! That's why I wonder why Ramo and Whinnery said it's an approximation.

>> Wonder why Ramo and Whinnery say that's an approximation for low-loss
>> lines? If the R+jwL angle is equal to the G+jwC angle, doesn't that
>> make Z0 purely resistive?
--
73, Cecil http://www.qsl.net/w5dxp

# 2614. Re: Zo and Ro

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-23 02:20:17 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <B7xod.49266$7i4.38413@bgtnsc05-news.ops.worldnet.att.net>
Source record: 86311

Cecil,

They were undoubtedly confused by their models, and they could not deal
with reality.

73,
Gene
W4SZ

Cecil Moore wrote:

> Gene Fuller wrote:
>
>> Try it.
>>
>> I believe you will find that your equality requirement on angles
>> reduces to precisely the simple equation offer by Reg.
>
>
> Exactly! That's why I wonder why Ramo and Whinnery said it's an
> approximation.
>
>>> Wonder why Ramo and Whinnery say that's an approximation for low-loss
>>> lines? If the R+jwL angle is equal to the G+jwC angle, doesn't that
>>> make Z0 purely resistive?
>
> --
> 73, Cecil http://www.qsl.net/w5dxp

# 2615. Re: Facts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-23 02:34:23 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41a29fb0$1_2@127.0.0.1>
Source record: 86312

Gene Fuller wrote:
> Since Cecil claims some sort of devine connection
> to model-less reality he clearly must be correct.

On the contrary - I don't believe in divinities at all.
That's exactly why I don't worship math models (like some
people I know) as if they possessed supernatural powers.

It is ridiculous to try to force a distributed network
problem to obey the rules of circuit analysis. The
distributed network analysis model was developed
specifically because distributed networks do NOT obey
the boundary conditions necessary for the circuit analysis
model to yield valid results.

When the only tool you have is a hammer, everything
looks like a nail. Math models are tools. Please
choose a valid one for whatever problem you are
trying to solve.
--
73, Cecil http://www.qsl.net/w5dxp

# 2616. Re: Zo and Ro

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-23 02:41:39 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41a2a165$1_3@127.0.0.1>
Source record: 86313

Gene Fuller wrote:
> They were undoubtedly confused by their models, and they could not deal
> with reality.

Thanks Gene, I really appreciate it when you contribute something
techincal.
--
73, Cecil http://www.qsl.net/w5dxp

# 2617. Re: Zo and Ro

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-23 02:49:27 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <cnu8pm$fc1$1@news.service.uci.edu>
Source record: 86314

Gene Fuller wrote:

> Cecil,
>
> They were undoubtedly confused by their models, and they could not deal
> with reality.
>
> 73,
> Gene
> W4SZ

I guess one could infer that that if G / C <> R / L, and R + jwL <> G +
jwC, then perhaps there are losses. I would only add that there are
probably also small currents in shunt distributed along the line.

73, ac6xg

> Cecil Moore wrote:
>
>> Gene Fuller wrote:
>>
>>> Try it.
>>>
>>> I believe you will find that your equality requirement on angles
>>> reduces to precisely the simple equation offer by Reg.
>>
>>
>>
>> Exactly! That's why I wonder why Ramo and Whinnery said it's an
>> approximation.
>>
>>>> Wonder why Ramo and Whinnery say that's an approximation for low-loss
>>>> lines? If the R+jwL angle is equal to the G+jwC angle, doesn't that
>>>> make Z0 purely resistive?
>>
>>
>> --
>> 73, Cecil http://www.qsl.net/w5dxp

# 2618. Re: Zo and Ro

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-23 03:14:58 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cnu9vi$t49$1@sparta.btinternet.com>
Source record: 86315

For those with a mathematical bent, alternatively stated, for the angle of
Zo to be zero, or for Zo to be purely resistive -

L * G = C * R

or

L / C = R / G

which relationship is derived from -

Zo = Squareroot( Z / Y )

Where line series impedance Z = R + j * Omega * L

and line shunt admittance Y = G + j * Omega * C

provided the angle of Z is equal to the angle of Y.

Which makes Zo = Ro + j * ZERO

QED
---
Reg, G4FGQ

# 2619. Re: MUFF

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-23 03:41:32 UTC
From: "Dee D. Flint" <deeflint01@comcast.net>
Message-ID: <QMmdnVNZMe7wLD_cRVn-tQ@comcast.com>
Source record: 86316

Actually the acronym is MUF for Maximu Usable Frequency. It is not muff.

"CW" <cmagers@earthlink.net> wrote in message
news:RvudnaYi1bRnvzzcRVn-sA@comcast.com...
> Why?
>
> "Fractenna" <fractenna@aol.com> wrote in message
> news:20041121172813.21699.00000854@mb-m12.aol.com...
> > ...'muff' map?!
> >
> > Gimme a break. Can't it be called something else?
> >
> > 73,
> > Chip N1IR
> >
> >
>
>

# 2620. Re: Single ground

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-23 03:42:20 UTC
From: Jack Painter <223bthp@cox.net>
Message-ID: <xkyod.15749$D26.13594@lakeread03>
Source record: 86317

"Gary Schafer" <gaschafer@comcast.net> wrote
> What isolates the shield of the coax from carrying current?
> As long as it is connected to the tower at one end it is going to have
> strike current on it whether you want it there or not. Nothing you can
> do about it. Paralleling other conductors will reduce it's total
> current but you still have to deal with it on the coax line.

Incorrect. First, a strike termination device is placed higher than other equipment with its own down conductor. Then a lightning arrestor and shield bonding are specified at the top of the tower, shield bonding along the path (up to three times) and at the bottom, then more shield grounding and another lightning arrestor at the facility entrance.

> If you don't want to call the coax shield a grounding conductor that's
> ok but that won't stop the current on it.

Current is maintained at a safe level on the coax center conductor and shielding by the above.

> Who told you that you should put lightning protectors at the tower as
> well as at the building entrance? What good do you think they do at
> the tower other than cost more money?

National telecommunication companies who specify them in white papers and engineering plans for lightning protection. I have been studying these systems for 18 months now and find this procedure consistently applied. The specific information is proprietary but all I had to do was ask for it. I found the information available via the USAF and other agencies I normally deal with was somewhat old, so I started asking commercial companies what they currently use, and could I have copies of their plans. That's where this information comes from. That and the National Electrical Code and National Fire Protection Association, October 2004 editions. Studying the NEC 250 grounding and bonding and the NFPA-780 offers more information to safely operate communication sequipment, especially during thunderstorms, than all the amatuer radio operators advice put together. Most of the amatuers giving this advice have no personal understanding of why or how this works, they just repeat stories or instructions they heard from someone else. Probably the biggest collection of dangerous information ever shared is what hams offer about lightning protection. Even the ARRL which makes an incredible effort to educate at the issue, has information so old in many cases it has not been used in best available practice for over ten years.

> With buried coax the ground acts like a large choke on the cable also.
> Exactly what you want. The ground increases the cables natural
> inductance.
/clipped

Your mistaken on this stuff Gary, we either shed or prevent lightning energy from coax by shield grounding, surge protection devices and sometimes encasement in grounded conduit. No plan or specification calls for earth-burying coax to deliver what you promise, and I believe your theory is electrically impossible, unless as I said over and over, the dialectric breakdown occurs, which means the installation was improper in the first place, or overcome by statistically rare events.

73,
Jack Painter
Virginia Beach VA

# 2621. Re: Zo and Ro

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-23 04:04:00 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <QEyod.957650$Gx4.806534@bgtnsc04-news.ops.worldnet.att.net>
Source record: 86318

Cecil,

Do you s'pose that if the equality is perfect for zero-loss lines then
maybe it is an useful approximation for low-loss lines?

Do you really think R&W were proposing that this simple relationship is
more appropriate for low loss lines than for zero loss lines?

73,
Gene
W4SZ

Cecil Moore wrote:
> Gene Fuller wrote:
>
>> Try it.
>>
>> I believe you will find that your equality requirement on angles
>> reduces to precisely the simple equation offer by Reg.
>
>
> Exactly! That's why I wonder why Ramo and Whinnery said it's an
> approximation.
>
>>> Wonder why Ramo and Whinnery say that's an approximation for low-loss
>>> lines? If the R+jwL angle is equal to the G+jwC angle, doesn't that
>>> make Z0 purely resistive?
>
> --
> 73, Cecil http://www.qsl.net/w5dxp

# 2622. Re: Single ground

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-23 05:06:50 UTC
From: Gary Schafer <gaschafer@comcast.net>
Message-ID: <sah5q0176he32qs3g5bqaim4v27u943cm4@4ax.com>
Source record: 86319

On Mon, 22 Nov 2004 22:42:20 -0500, "Jack Painter" <223bthp@cox.net>
wrote:

>"Gary Schafer" <gaschafer@comcast.net> wrote
> > What isolates the shield of the coax from carrying current?
>> As long as it is connected to the tower at one end it is going to have
>> strike current on it whether you want it there or not. Nothing you can
>> do about it. Paralleling other conductors will reduce it's total
>> current but you still have to deal with it on the coax line.
>
>Incorrect. First, a strike termination device is placed higher than other
>equipment with its own down conductor. Then a lightning arrestor and shield
>bonding are specified at the top of the tower, shield bonding along the path
>(up to three times) and at the bottom, then more shield grounding and
>another lightning arrestor at the facility entrance.
>
>> If you don't want to call the coax shield a grounding conductor that's
>> ok but that won't stop the current on it.
>
>Current is maintained at a safe level on the coax center conductor and
>shielding by the above.
>
>> Who told you that you should put lightning protectors at the tower as
>> well as at the building entrance? What good do you think they do at
>> the tower other than cost more money?
>
>National telecommunication companies who specify them in white papers and
>engineering plans for lightning protection. I have been studying these
>systems for 18 months now and find this procedure consistently applied. The
>specific information is proprietary but all I had to do was ask for it. I
>found the information available via the USAF and other agencies I normally
>deal with was somewhat old, so I started asking commercial companies what
>they currently use, and could I have copies of their plans. That's where
>this information comes from. That and the National Electrical Code and
>National Fire Protection Association, October 2004 editions. Studying the
>NEC 250 grounding and bonding and the NFPA-780 offers more information to
>safely operate communication sequipment, especially during thunderstorms,
>than all the amatuer radio operators advice put together. Most of the
>amatuers giving this advice have no personal understanding of why or how
>this works, they just repeat stories or instructions they heard from someone
>else. Probably the biggest collection of dangerous information ever shared
>is what hams offer about lightning protection. Even the ARRL which makes an
>incredible effort to educate at the issue, has information so old in many
>cases it has not been used in best available practice for over ten years.

>
>> With buried coax the ground acts like a large choke on the cable also.
>> Exactly what you want. The ground increases the cables natural
>> inductance.
>/clipped
>
>Your mistaken on this stuff Gary, we either shed or prevent lightning energy
>from coax by shield grounding, surge protection devices and sometimes
>encasement in grounded conduit. No plan or specification calls for
>earth-burying coax to deliver what you promise, and I believe your theory is
>electrically impossible, unless as I said over and over, the dialectric
>breakdown occurs, which means the installation was improper in the first
>place, or overcome by statistically rare events.
>
>73,
>Jack Painter
>Virginia Beach VA
>

Jack,

I don't think you really understand all you are reading. It sounds like you are digging up stuff designed to sell a lot of protection devices.

As far as the NEC requiring grounding and bonding of structures, They want to be sure that there is a continuous bond on things they are concerned with. They don't always consider what they are grounding.

Do you really think that placing a down conductor of #6 wire on a tower with a 6 or 8 foot face (big tower) is going to make any difference in the impedance path that the lightning is going to see. Each leg may be 2 or 3" in diameter itself. The impedance of the tower will be so much lower than that wire. The lightning won't know the difference whether that wire is there or not.

Even if the added down conductor did carry a large part of the current it would get coupled to the tower anyway before it reached the bottom. That is what happens to the coax lines in reverse. Any energy that the tower is carrying is coupled to the coax lines whether they are grounded to the tower or not. You ground them at multiple points to prevent flashovers between the lines and the tower.

You can not keep the lightning energy off the coax lines or any other lines coming down the tower. They are all mutual. When those lines leave the tower at the bottom they are going to have some energy on them unless you have a perfect ground at the bottom of the tower.

A grounded antenna will keep voltage levels on the center conductor at a safe level. No need for a protection device at the top.

I agree that there is a lot of mis-information on lightning floating around. But don't cut all the hams short either. Some of them have

lots of experience in this area.
Think about what you read rather than taking in mounds of propaganda and repeating it.

Do you think that you can bury the feed wire for your long wire antenna and have it work very well? What do you think will happen to the RF on it? Will it make it all the way back to your receiver the same as it would if it were above ground?

73
Gary K4FMX

# 2623. Re: Single ground

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-23 05:11:29 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cnugq1$723$1@sparta.btinternet.com>
Source record: 86320

Just a few thoughts on the subject.

Lightning conductors are most accurately modelled as DC to HF transmission lines - which indeed is what they are.

In addition to resistance they posses inductance, capacitance, a Zo and propagation constants depending on length and diameter. It takes time for a stroke to propagate down and along a set of conductors. It arrives at different times at different places in the system.

The generator is a high impedance, pulsed current source of so many thousands of amps. The voltage developed between a conductor, another conductor, and what's in its environment is Zo times the stroke current. Volts can leap across gaps.

Once in the ground current travels at a much slower velocity than along a wire. Voltages developed depend on arrival times at different places. A ground rod is a short length of line.

Frequencies of 100's of kilohertz are involved. Even reflected volts and currents occur. Ground conductivity can be allowed for.

Very crude approximations are involved. Nevertheless, any information about behaviour DURING a strike is better than none. It may be a matter of life and death.

It would be interesting to calculate, for a given strike current, the difference in voltage between the front and rear legs of a cow standing near to and facing a grounded antenna mast.

Radio hams, presumably endowed with more common sense, can always wear rubber boots while walking around their backyards carrying a field-strength meter in thunder storms.
---
Reg, G4FGQ

# 2624. Re: Cobra UltraLite Multi-band Antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-23 05:14:14 UTC
From: Frank <ve6cb@NOSPAM.telus.net>
Message-ID: <GGzod.178765$df2.3403@edtnps89>
Source record: 86321

> Hi Frank,
>
> Well, your segmentation at one inch intervals over 420 feet of wire
> seems rather over-the-top, but I suppose you arrived at that through
> your transmission line modeling. Perhaps I should attempt that myself
> in my own TL models.

You are correct Richard -- It appears my segmentation is seriously "over the top". The segmentation was driven by not wanting a segment to be longer than the spacing. Some texts on NEC do recomend such constraints. So far I have gone to 16" segments, with 1" spacing. For the transmission line model it shows even better convergence. #24 AWG spaced by 1" has a characterestic impedance of 550 Ohm. My transmission line model is 100 ft long with 75 segments in each side. It would be interesting to know if EZNEC would produce the same result.

> EZNEC, itself, offers segmentation and geometry tests and where there
> are issues it will remedy them itself. For this turn in the road I am
> simply the loose nut behind the steering wheel. The first pass I
> offered here (that brought EZNEC to its knees) consisted of only 263
> segments. I then spread the wires out to accommodate those issues
> EZNEC reported but would not correct of its own volition.

> Were your wires as close as conventional 3-wire zip cord?

No, as explained above they are #24 spaced by 1". Possibly I missed something there. Is the antenna made from simple 3-wire zip cord? Unfortunately NEC cannot model insulated wire, so not sure how that would effect the model. Is the VF very significant?

>
>>From an operational point of view there seems to be very little difference
>>between a 140 ft "Cobra" antenna, and a 140 ft dipole. On some
>>frequencies
>>it is noted that the Cobra exhibits a lower efficiency.
>
> No doubt from one proximal wire bucking the other.

That's what I figured.

>The data are noticeably different from your results (note that at 2 MHz
>both
>>our results show an imaginary part of >0), but probably due to the large
>>difference in dimensions.
>
> I would offer more likely due to nearby embrace of earth.

Very likely. How high did you place your model? Did you use the
Sommerfeld/Norton grouind model? Probably not really a factor at 30 ft, or
more, above ground.

> Consult:
> http://www.qsl.net/kb7qhc/antenna/fractal/Triadic%20Koch/review.htm
> for one small sample from many hundred pages of results.
>
>>One thing that does come out of this modeling is that an antenna does not
>>have to be very much longer than a 1/4 wave long to provide reasonable
>>input
>>impedances.
>>
>>Incidentally my model was run in free space, so have no data on take-off
>>angle. I doubt it would be very different.
>>
>>73,
>>
>>Frank
>>
>> Cobra
>> 140 ft Dipole
>>
>>Frequency Real(Z) Imag(Z) Efficiency Real(Z) Imag(Z)
>>Efficiency
>>(MHz) (Ohms) (Ohms) (%) (Ohms) (Ohms)
>>( %)
>>
>>2 71.216 201.878 36
>> 18 -737.554 98
> mine 12 +j550 Ohms
>>14 1465.88 -1284.19 97
>> 2158.99 -1485.13 99.6
> mine 440 -j610
>>21 1272.82 -1009.83 97
>> 1926.04 -1113.17 99.5
> mine 420 -j520
>
> It appears that your reader, Outlook Express (a piece of software crap
> by the way) is line length limited.

It sure is!

>Comparisons were difficult at
> best so I confined them to those above. I was going to do a
> side-by-side comparison with the same 140' dipole, but it was
> unremarkable when earth dominates the drive point Z.
>
> Another explanation for variations may be simply found in the high
> degree of Z variation across frequency, we do agree on the imaginary
> sign and the values do track in the higher bands.
>

> 73's
> Richard Clark, KB7QHC

Now I have gotten out of my segmentation fixation I may be able to run some more realistic models.

73,

Frank

# 2625. Re: Cobra UltraLite Multi-band Antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-23 06:47:32 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <g9m5q0dfo5r68lhag81uomlafp86lfaiea@4ax.com>
Source record: 86222

On Tue, 23 Nov 2004 05:14:14 GMT, "Frank" <ve6cb@NOSPAM.telus.net>
wrote:

> My transmission line model is 100 ft long with 75
>segments in each side. It would be interesting to know if EZNEC would
>produce the same result.

Hi Frank,

I will try to fill that request. If not soon, eventually.

>> Were your wires as close as conventional 3-wire zip cord?
>
>No, as explained above they are #24 spaced by 1". Possibly I missed
>something there. Is the antenna made from simple 3-wire zip cord?

Yes, by inference from close-up photography at the web site.

>Unfortunately NEC cannot model insulated wire, so not sure how that would
>effect the model. Is the VF very significant?

EZNEC can accommodate insulation, but I rarely fine tune to that
degree when I am looking at the panorama of SWR sweeps. Really, this
will only nudge things in the single digit percentage range and such
things are swamped from one Ham's situation to another's.

>> I would offer more likely due to nearby embrace of earth.
>
>Very likely. How high did you place your model? Did you use the
>Sommerfeld/Norton grouind model? Probably not really a factor at 30 ft, or
>more, above ground.

I placed it at the reported height, 35 feet, that raised the signal
levels 2 S-Units over a similarly mounted G5RV. ;-) I choose one of
two ground models when I work on these things: Perfect, or average,
high accuracy lossy. That height seems to be a commonly reported
value with those who put up wire antennas and have no tower to work
from, so it works for me as an "Everyman's" best.

73's
Richard Clark, KB7QHC

# 2626. Re: Cobra UltraLite Multi-band Antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-23 08:04:02 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <n5r5q0p82fuf2k122cnrqdghtc5lgatafq@4ax.com>
Source record: 86223

On Tue, 23 Nov 2004 06:47:32 GMT, Richard Clark <kb7qhc@comcast.net>
wrote:

>On Tue, 23 Nov 2004 05:14:14 GMT, "Frank" <ve6cb@NOSPAM.telus.net>
>wrote:
>
>> My transmission line model is 100 ft long with 75
>>segments in each side. It would be interesting to know if EZNEC would
>>produce the same result.
>
>Hi Frank,
>
>I will try to fill that request. If not soon, eventually.
>

Hi Frank,

I gave this several passes with various segmentations.

The best, flattest response appeared at 400 (total) segments over a
10M length of line of #24 separated by 1". This resulted in a
characteristic 575 Ohm line with a 1.045:1 SWR ripple over the 2 MHz
to 30 MHz band.

When I doubled and then tripled the segments, the low end got a little
whacked out (getting worse as the segments went up).

I was working from many segments down, so I did not lower the count to
your longer segments - maybe tomorrow, I was paying attention to your
(and EZNEC's) advice about segment length equaling line separation.

73's
Richard Clark, KB7QHC

## 2627. SV: 2meter jpole question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-23 08:30:45 UTC
From: Moskog <romma@online.no>
Message-ID: <LwCod.9219$rh1.235501@news2.e.nsc.no>
Source record: 86224

Thank you to all of you for helpful information, now I have to visit the
local radio-amateur for the final SWR tuning!

KjellO

'Doc <w5lz@cwis.net> skrev i
meldingsnyheter:bvmod.31086$Qv5.19702@newssvr33.news.prodigy.com...
> Kjell,
> Basically, it just doesn't matter...
> 'Doc

# 2628. Re: Cushcraft Vertical HF MA5V

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-23 10:14:29 UTC
From: canarchy <canarchy13@hotmail.com>
Message-ID: <cnv2i4$vgu$1@newsg1.svr.pol.co.uk>
Source record: 86225

Note: Only available to the Dallas Ft Worth metroplex areas. Cannot be shipped

bugger bugger bugger,,,that's always the problem

## 2629. Re: Single ground

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-23 11:27:03 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cnv6q7$l6d$1@hercules.btinternet.com>
Source record: 86226

Just another thought -

If a resourceful ham has no rubber boots he can always stand on one leg and hop.
---
Reg

# 2630. Re: Single ground

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-23 11:38:52 UTC
From: Jack Painter <223bthp@cox.net>
Message-ID: <hjFod.17101$D26.14162@lakeread03>
Source record: 86227

Gary,

> As far as the NEC requiring grounding and bonding of structures, They
> want to be sure that there is a continuous bond on things they are
> concerned with. They don't always consider what they are grounding.
>
> Do you really think that placing a down conductor of #6 wire on a
> tower with a 6 or 8 foot face (big tower) is going to make any
> difference in the impedance path that the lightning is going to see.

I never suggested such a silly thing! You mistake an earlier reference I made to a bonding conductor. Down conductors are sized according to code standards which provides a minimum for given elevation categories. 3/0 wire which is close to 1/2" in dia is the largest reqirement in NEC sizing table 250.66. In telecommunication applications, down conductors are normally sized to equal or exceed the size of the feed lines, and this means larger sizing yet. It's bonding conductors that burying usually serves no purpose except protection. One bond that is an exception is the station ground to utility entrance ground - that bond will carry ground potential rise current that hopefully bypasses the power connection at the back of station equipment. It must remain low impedance and high current capability, so additional ground rods are required along that bond if farther than 20'. Don't sell the NEC short. NFPA, which oversees the National Electrical Code, doesn't specify maximum protection, it specifies minimum protection standards. Industry does better where it sees cost benefit from doing so.

> Even if the added down conductor did carry a large part of the current
> it would get coupled to the tower anyway before it reached the bottom.
> That is what happens to the coax lines in reverse. Any energy that the
> tower is carrying is coupled to the coax lines whether they are
> grounded to the tower or not. You ground them at multiple points to
> prevent flashovers between the lines and the tower.

Actually this is bonding Gary, an important distinction to understand. A device is only grounded at a grounding electrode. All other connections are bonding for equipotential, to minimize voltage differences. The principles of bonding are not taught in the amateur radio or any other communications hobby. Only electrical enginners, electricians, and anyone who studies the electrical code and reference materials on bonding and grounding will understand this. It's hard to even communicate about lightning protection until the basics of protection by equipotential are understood, and this doesn't come from a casual read or anything learned in ham-world postings. At least not from what I've seen, which is about everything a search engine can find.

>
> You can not keep the lightning energy off the coax lines or any other
> lines coming down the tower. They are all mutual. When those lines
> leave the tower at the bottom they are going to have some energy on
> them unless you have a perfect ground at the bottom of the tower.
>
> A grounded antenna will keep voltage levels on the center conductor at
> a safe level. No need for a protection device at the top.

I didn't write the specifications that major companies are using, and neither did the companies selling lightning protection, although I agree there is influence there. Professional Engineers write these to protect equipment, personnel, and maintain operations, maybe not in that order. If they specify arrestors at tower tops, they must be trying to avoid damage that was not protected without them. It is no guarantee that damage is eliminated by their presence, I'm just relaying their usage - now.

>
> I agree that there is a lot of mis-information on lightning floating
> around. But don't cut all the hams short either. Some of them have
> lots of experience in this area.

I don't cut all hams short. Richard Harrison (resident guru here on RRA) and others are thanked on my website for great information, their experiences, and helpful answers to questions. Many hams provided me with details about damage to equipment, and their humble honesty cannot be thanked enough. I have written many the best of the amateur websites discussing grounding and offered suggestions and references to improve their quality .

Here are a few excerpts you or others may have missed from the NEC:

Article 810.51 of the current NFPA 70, which states in part...

"810.58 Grounding Conductors - Amateur Transmitting and Receiving Stations.

Grounding conductors shall comply with 810.58(A) through (C).

(A) Other Sections. All grounding conductors for amateur transmitting and receiving stations shall comply with 810.21(A) through (J).

(B) Size of Protective Grounding Conductor. The protective grounding conductor for transmitting stations shall be as large as the lead-in but not smaller than 10 AWG copper, bronze, or copper-clad steel.

(C) Size of Operating Grounding Conductor. The operating grounding conductor for transmitting stations shall not be less than 14 AWG copper or its equivalent."

and Article 810.15, which states

"810.15 Grounding.

"Masts and metal structures supporting antennas shall be grounded in accordance with 810.21."

finally, 810.21, which states

"810.21 Grounding Conductors - Receiving Stations.

Grounding conductors shall comply with 810.21(A) through (J).

(A) Material. The grounding conductor shall be of copper, aluminum, copper-clad steel, bronze, or similar corrosion-resistant material. Aluminum or copper-clad aluminum grounding conductors shall not be used where in direct contact with masonry or the earth or where subject to corrosive conditions. Where used outside, aluminum or copper-clad aluminum shall not be installed within 450 mm (18 in.) of the earth.

(B) Insulation. Insulation on grounding conductors shall not be required.

(C) Supports. The grounding conductors shall be securely fastened in place and shall be permitted to be directly attached to the surface wired over without the use of insulating supports.

Exception: Where proper support cannot be provided, the size of the grounding conductors shall be increased proportionately.

(D) Mechanical Protection. The grounding conductor shall be protected where exposed to physical damage, or the size of the grounding conductors shall be increased proportionately to compensate for the lack of protection. Where the grounding conductor is run in a metal raceway, both ends of the raceway shall be bonded to the grounding conductor or to the same terminal or electrode to which the grounding conductor is connected.

(E) Run in Straight Line. The grounding conductor for an antenna mast or antenna discharge unit shall be run in as straight a line as practicable from the mast or discharge unit to the grounding electrode.
/clipped

73,
Jack Painter
Virginia Beach VA

# 2631. Re: HF antenna for boat portable?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-23 14:24:51 UTC
From: William Mutch <wcm1@NOSPAM.cornell.edu>
Message-ID: <MPG.1c0d123f8be0f6579897d7@newsstand.cit.cornell.edu>
Source record: 86228

In article <cnekeo$2ivb$1@agate.berkeley.edu>,
david@isi.mtwilson.edu.REMOVE says...
> hi,
>
> I am taking a trip on a dive boat to Cocos Island off of Costa Rica.
> I'm thinking about trying to bring an HF rig. What suggestions have
> you for an antenna? It would have to fit into a reasonably "standard"
> suitcase, or go as carry-on luggage, since packing space is limited.
>
>
You've little description of the vessel you'll be in. If it has a
stayed mast of any height a common practice is to load the backstay thru
a tuner. If the stay is conductive to a metal mast and to a metal hull
at the lower end tune it from a gamma match. If the stay is insulated
tune it as a marconi. The taller the mast the lower the freq you can
easily match.

# 2632. Re: Zo and Ro

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-23 15:36:11 UTC
From: radio913@aol.com
Message-ID: <1d15af91.0411230736.61730642@posting.google.com>
Source record: 86229

w9dmk@crosslink.net (Robert Lay W9DMK) wrote in message
news:<41a28fc8.9908727@news.crosslink.net>...

> >
> >The condition for which Zo of a transmission line is always purely resistive
> >(Zo = Ro) is extremely simple. It is -
> >
> >G = C * R / L
> >
> >where G is shunt conductance, C is shunt capacitance, R is series
> >resistance, L is series inductance, all per unit length of line.
> >

Well, that is pretty entertaining and
interesting, i will admit. However, the
result isn't very practical...

Most texts just assume lossless conditions,
so that R and G equal zero, so that Zo is
again, always purely real, and only dependant
on the distributed inductance and capacitance
of the transmission line.

> >Which applies to any line length, at any frequency from DC to UHF.
> >
> >It is a shortcoming of the Smith Chart, with Zo always equal to Ro, that it
> >does not make you aware of this and can lead you up the garden path if you
> >are not careful. As has recently occurred on this newsgroup.
> >
> >Don't get me wrong. I'm not against Smith Charts. They are graphically
> >educational within their limitations.
> >----
> >Reg, G4FGQ
>
> Dear Reg,
>
> You say that it is a shortcoming of the Smith Chart that Zo equals Ro.
> However, I think that is either a misunderstanding or just misleading.
> The Smith Chart only constrains the normalizing quantity to be purely
> resistive - not the characteristic impedance of a particular
> transmission line being shown on that chart. My program, SmartSmith,
> for example, allows the user to specify both an Ro and an Xo term for
> all transmission line sections.
>
> When it's all said and done, the Smith Chart only implements the

> transmission line equation (as shown on pages 24-10 and 27-29 in the
> 17th Edition of The ARRL Antenna Book).
>

You know, this seems to be quite a theory
problem regarding the Smith Chart. This goes back to
the heated argument on the Gamma reflection
coefficient using the conjugate of Zo in the
numerator.
Since i trust Les Besser more than
other people, i'm gonna assume that
you indeed CAN normalize a Smith chart
to a complex Zo. That is, a Zo that
is not a purely real impedance.

Slick

# 2633. Re: Zo and Ro

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-23 16:31:38 UTC
From: Wes Stewart <n7ws_@_yahoo.com>
Message-ID: <d7p6q0tidhpjlc63knrlgcj7bblap0cb0r@4ax.com>
Source record: 86230

On 23 Nov 2004 07:36:11 -0800, radio913@aol.com (Dr. Slick) wrote:

[snip]
| Since i trust Les Besser more than
|other people,

Heh heh. Reminds me... I took his video taped course, "RF/Microwave Transistor Amplifier Design".

I was watching one tape at home while the XYL was making dinner. She could hear the audio and finally asked me to turn it off since it was making *her* fall asleep. [g].

Really smart guy, but not a very dynamic speaker.

# 2634. Re: MUFF

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-23 17:05:48 UTC
From: billybeeper@juno.com
Message-ID: <1e4e3692.0411230905.7228492a@posting.google.com>
Source record: 86231

willybe@isp.com (KD4PQF) wrote in message
news:<1f9bb743.0411211250.40671ad8@posting.google.com>...
> For all those like me and cant read a muff map. download "ham cap "
> by VE3NEA.. great little program if its in the red on the band you
> want chances are you can talk to that area.
>
> KD4PQF

To read a muff map, you've got to take your glasses off and get in real close.

All kidding aside, MUF is maximum useable frequency. Red is good.

# 2635. Re: Single ground

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-23 18:04:54 UTC
From: Gary Schafer <gaschafer@comcast.net>
Message-ID: <uku6q0h8q560sfrjhsoaukdgbr07hh3lj1@4ax.com>
Source record: 86233

Here is a quote from your previous post where the discussion was about
the tower and lines carrying strike current.

>Jack Painter

>First, a strike termination device is placed higher than other
>equipment with its own down conductor.

Your reply when questioned about placing a down conductor in parallel
with the tower was:
>I never suggested such a silly thing! You mistake an earlier reference >I made to a
bonding conductor.

As far as down conductors go you need to read farther to see what they
are using them for. We are talking about towers here. No down
conductors needed. If you are talking about a building or wooden pole
mounted antenna then that's a different story.

The applications of grounding and bonding principles are not reserved
for an elite society of engineers and electricians as you might like
to think. They are free and available to all. There are no secrets
involved.
Quoting a load of authoritative directives is not a substitute for
understanding.

It is a play of semantics when you say " an important distinction to
understand the difference between bonding and grounding". I would
guess that it does not take too much study to understand that real
ground can not be half way up a tower. So whether you are "bonding" or
"grounding" a cable on a tower, the end result is unmistakably the
same.

It seems that some of the discontinuity may come from lack of basic
understanding of RF principles. Lightning is not just a direct current
event that requires only consideration for high currents.

As far as buried cables go:
I will ask the same question again that you avoided from last time but
instead provided mounds of quotes that do not address the point.

"Do you think that you can bury the feed wire for your long wire
antenna and have it work very well? What do you think will happen to
the RF on it? Will it make it all the way back to your receiver the
same as it would if it were above ground?"

This is a very relevant to "buried coax lines".

73
Gary K4FMX

## 2636. Re: Single ground

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-23 18:10:49 UTC
From: Gary Schafer <gaschafer@comcast.net>
Message-ID: <08v6q0tbthb0vtguiql9quglsbdlbv80so@4ax.com>
Source record: 86232

On Tue, 23 Nov 2004 11:27:03 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>Just another thought -
>
>If a resourceful ham has no rubber boots he can always stand on one leg and
>hop.
>---
>Reg
>

Hams seem to be resourceful don't they! :>)

73
Gary K4FMX

# 2637. Re: Zo and Ro

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-23 19:10:18 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41a3891b_2@127.0.0.1>
Source record: 86234

Jim Kelley wrote:
> I guess one could infer that that if G / C <> R / L, and R + jwL <> G +
> jwC, then perhaps there are losses. I would only add that there are
> probably also small currents in shunt distributed along the line.

If R <> 0 and G <> 0, then there are losses. The only time a line is lossless is when R = G = 0 which, according to Reg, is only in my wet dreams about circles on Smith Charts. :-) For real world transmission lines at HF, (usually) R/Z0 >> G*Z0. When I was a member of the high speed cable group at Intel, I remember test leads designed for R/Z0=G*Z0 but they were expensive special order devices.

We apparently are more successful at designing very good dielectrics than in finding an economically feasible conductor with a couple of magnitudes less resistance than copper. Thus our ordinary transmission lines have a lot more series resistance than shunt conductance, especially open-wire transmission lines in free space. :-)
--
73, Cecil http://www.qsl.net/w5dxp

# 2638. Re: Zo and Ro

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-23 19:16:35 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41a38a92$1_2@127.0.0.1>
Source record: 86235

Gene Fuller wrote:
> Do you s'pose that if the equality is perfect for zero-loss lines then
> maybe it is an useful approximation for low-loss lines?
>
> Do you really think R&W were proposing that this simple relationship is
> more appropriate for low loss lines than for zero loss lines?

Nope, exactly the opposite. Apparently, they were proposing that this
simple relationship doesn't hold for highly lossy lines. Chipman also
has something to say about highly lossy lines.
--
73, Cecil http://www.qsl.net/w5dxp

# 2639. Re: Zo and Ro

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-23 19:21:37 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41a38bc0$1_1@127.0.0.1>
Source record: 86236

Dr. Slick wrote:
> Well, that is pretty entertaining and
> interesting, i will admit. However, the
> result isn't very practical...

On the contrary, the result is extremely practical and
isn't very ideal, just like real-world physics. :-)
--
73, Cecil http://www.qsl.net/w5dxp

# 2640. surveillance receiver aerial

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-23 20:13:12 UTC
From: zentace63@yahoo.co.uk
Message-ID: <a406d859.0411231213.76bee279@posting.google.com>
Source record: 86237

Hello

Hope someone out there can help!
I've just started a private investigator business.
Part of the equipment I use is a recorder/receiver unit (basically a sony tape machine with a receiver built on to it). The aerial appears to be a black plastic coated, bendy single wire 16cm long with a small 3mm (approx) screw thread on the end which screws into the receiver. It appears to be single core, in that, the screw thread is a solid piece (not like a two piece jack plug for example).

I want to be able to connect an external car ariel to the receiver as at present the receiver with the aerial screwed in is hidden inside the car and the reception is very poor.

Some questions:
Is the aerial single core? I naively thought all aerials had a core and screen.

Could I take a connection from the centre core of an existing wing mounted car aerial and run a single wire to the receiver inside the car?

If I used this method would the external car aerial have to be 16cm, same as the plastic aerial?

Can these small 3mm screw threads on the end of the existing aerial be bought from somewhere so I could connect my external aerial to the receiver?

I hope this all makes sense and I would be very grateful for any advice.

Thank you

# 2641. Re: New Program - Coaxial Choke

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-23 20:40:37 UTC
From: Mike Coslo <mjc5remove@psu.edu>
Message-ID: <41A3A045.9080404@psu.edu>
Source record: 86238

Ian White, G3SEK wrote:

> I fully realise that any software modification will be more involved
> than I realise.

This is a great quote, Ian!

- Mike KB3EIA -

## 2642. Kenwood 850 w/power supply

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-23 20:45:03 UTC
From: jaykay <verak69@juno.com>
Message-ID: <55f7bc5bf3032a66dfe2e82ad2e4ecda@localhost.talkaboutradio.com>
Source record: 86239

I have a mint 850 for sale with its own power supply by Kenwood. It has 2 filters. Also I have a cushcraft 140/440 stick and cushcraft 12 element beam w/rotor cables and all. The beam is vert/horiz for 2 M sideband Best offer takes all.
John
verak69@juno.com

# 2643. Re: Single ground

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-23 22:42:24 UTC
From: Jack Painter <223bthp@cox.net>
Message-ID: <I1Pod.3766$SA.1120@lakeread02>
Source record: 86240

"Gary Schafer" <gaschafer@comcast.net> wrote
>
> Here is a quote from your previous post where the discussion was about
> the tower and lines carrying strike current.
>
> >Jack Painter
>
> >First, a strike termination device is placed higher than other
> >equipment with its own down conductor.
>
> Your reply when questioned about placing a down conductor in parallel
> with the tower was:
> >I never suggested such a silly thing! You mistake an earlier reference >I
made to a bonding conductor.

You're displaying dimensia Gary. You accused me of suggesting a #6 wire would be useful as a down conductor and I never said such a ridiculous thing. You misread the posts, or still don't understand most of the terminology that the entire electrical, fire protection, lightning protection and communication industry use to refer to bonding and grounding components.

in news:qBdod.15535$D26.3848@lakeread03... I said, and I quote:
"Burying a grounding electrode conductor is normally a code requirement. But that is not what you have in connecting the tower ground system to the station ground, AC mains ground, etc. Those are bonding conductors, and they are in many cases required to be insulated. Not in this case, but I want you to understand the difference between grounding, voltage division from many grounds, and a bonding conductor between your station and the tower. The latter is to maintain equipotential, and will not carry more than just equalizing currents. It will be well within the capability of a #6 insulated wire, should you choose to use that."

I'm not being condescending, if you're still confused there please say so, and I will try to explain it better.

> As far as down conductors go you need to read farther to see what they
> are using them for. We are talking about towers here. No down
> conductors needed. If you are talking about a building or wooden pole
> mounted antenna then that's a different story.

Its clear to me who needs to do the reading here. Your last shot was also wide of the mark regarding down conductors on towers. They are used on communication towers in exactly the same fashion as they are on any structure, to provide a dedicated path to a grounding electrode for the charge received by a strike termination device. A tower down conductor is

bonded to the tower frames in many places, that's the same as a down conductor on any structure is bonded to metal stairways, handrails, roof flashing, etc. on its way to ground.

> The applications of grounding and bonding principles are not reserved
> for an elite society of engineers and electricians as you might like
> to think. They are free and available to all. There are no secrets
> involved.

Please don't take my comments so far out of context. But you're right it is reserved, its reserved for those who pay the fees and time to subscribe to organizations that license the printing of the codes, and constantly discuss and explain changes, applications and plan future requirement for them.

> Quoting a load of authoritative directives is not a substitute for
> understanding.
>
> It is a play of semantics when you say " an important distinction to
> understand the difference between bonding and grounding". I would
> guess that it does not take too much study to understand that real
> ground can not be half way up a tower. So whether you are "bonding" or
> "grounding" a cable on a tower, the end result is unmistakably the
> same.

Neither should it be as oversimplified as your rebuttal. They are not the same thing and to misunderstand it would be to make deadly mistakes when applying those principles, both outside and inside structures where external equipments connect to people.

> It seems that some of the discontinuity may come from lack of basic
> understanding of RF principles. Lightning is not just a direct current
> event that requires only consideration for high currents.
>

This is a subterfuge to divert the attention from the basics we were discussing, and until that is resolved there is no room for discussion about protection design based on frequencies of structures and wiring in the near field, or the AC components of lightning.

> As far as buried cables go:
> I will ask the same question again that you avoided from last time but
> instead provided mounds of quotes that do not address the point.
>
> "Do you think that you can bury the feed wire for your long wire
> antenna and have it work very well? What do you think will happen to
> the RF on it? Will it make it all the way back to your receiver the
> same as it would if it were above ground?"
>
> This is a very relevant to "buried coax lines".

I ignored that question because I thought it had no relevance to anything here. Maybe you can rephrase what you are asking please? We are talking about shielded coax, and the relationship between lightning and the thin outer covering of coax, the coax shield, the inside dialectric, and the center conductor are quite unique and not convertible to a relationship with bare wire feed of some long wire. My coax feedlines are buried - so I don't hit them with the lawn mower! But it doesn't mean anything to lightning to have your coax buried, unless you hire a trencher to sink them deeper than the ground rods. In a near field strike there will be massive and sufficient energy to make all that shield grounding, bonding and placement of arrestors real important. And it won't matter where the coax is if all of those requirements are not met. if you think your coax is protected under your lawn, lay some turf over your radios and protect them the same way. It's a wives tale Gary, just like so many RF-wives tales, only there are more capable folks here to dispel those.

73,
Jack Painter
Virginia Beach VA

# 2644. Re: What's the best Source of Info On Rhombics?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-23 22:47:47 UTC
From: Simone <iw5edi_delthis@qsl.net>
Message-ID: <co0en9$5nf$1@domitilla.aioe.org>
Source record: 86241

Have a look here.
http://www.dxzone.com/catalog/Antennas/index.shtml

Arrl antenna book contain many info on it too.

"MailfrmPA" <mailfrmpa@aol.com> ha scritto nel messaggio
news:20041119232316.06541.00000650@mb-m24.aol.com...
> What book/mag article would you recommend as the best "how to " source of
info
> on rhombics for the low bands? The comming cold dark nights put me in a
mind
> for dreaming of big antennas. For bedtime reading I don't want a lot of
> formulas, just nuts and bolts info
>
> K0MB

## 2645. Re: Propagation forecasts

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-23 22:50:30 UTC
From: Simone <iw5edi_delthis@qsl.net>
Message-ID: <co0es9$63s$1@domitilla.aioe.org>
Source record: 86242

http://www.dxzone.com/catalog/Propagation/

http://www.dxzone.com/catalog/Shortwave_Radio/

> Is there any place on the Net where I can find daily propagation reports?
I
> am especially interested in night time propagation forecasts for
commercial,
> AM broadcast band signals.

73

# 2646. Re: Pilot Travel Centers Fined $125,000!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-23 23:59:12 UTC
From: Steveo <moparholic@hotmail-nospam.com>
Message-ID: <20041123185912.528$Bd@newsreader.com>
Source record: 86243
Cross-posted to: rec.radio.cb,alt.dogie.is.an.idiot,rec.radio.amateur.policy,alt.ham-radio.vhf-uhf,rec.radio.amateur.equipment,rec.radio.amateur.antenna

N8WWM DOUG ADAIR-keyklonzrnutjobs@yahoo.com (Psychiatrist to keyclowns)
wrote:
>> HEHEHEHE...more keyclowns gonna cry now. Doncha love it!
>
Do your kids cry when you don't feed them, Doug?

http://tinyurl.com/6crsd

# 2647. Re: OT- night out on the town

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-24 00:09:37 UTC
From: Steveo <moparholic@hotmail-nospam.com>
Message-ID: <20041123190937.307$gU@newsreader.com>
Source record: 86244
Cross-posted to: rec.radio.cb,alt.dogie.is.an.idiot,rec.radio.amateur.policy,rec.radio.amateur.antenna

N8WWM DOUG ADAIR-keyklonzrnutjobs@yahoo.com (Psychiatrist to keyclowns)
wrote:
> Steveo <moparholic@hotmail-nospam.com> wrote in message
> news:<20041119061418.141$KS@newsreader.com>...
> > keyklonzrnutjobs@yahoo.com (Psychiatrist to keyclowns) wrote:
> > > Keith Hosman KC8TCQ <logdshr@nospam.bright.net> wrote in message
> > > then she farted and flew out the window.
> > >
> > > Much better joke in your mirror, Judas.
> > >
> > Awww whatsamatta dogie? Didja get slapped on the cum catcher again?
>
> No, assmunch...but YOU did...heheheh
>
Can you help me install a skip shooter like yours, please? (does it talk
better than it looks)? :-P

http://img131.exs.cx/my.php?loc=img131&image=dogie04.jpg

After-all, you're the professional fuckstick.

# 2648. Re: OT- night out on the town

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-24 00:18:19 UTC
From: Lancer
Message-ID: <5hk7q0h09jts707lu6v133hbj05h3qn88f@news.easynews.com>
Source record: 86245
Cross-posted to: rec.radio.cb,alt.dogie.is.an.idiot,rec.radio.amateur.policy,rec.radio.amateur.antenna

On 24 Nov 2004 00:09:37 GMT, Steveo <moparholic@hotmail-nospam.com>
wrote:

>N8WWM DOUG ADAIR-keyklonzrnutjobs@yahoo.com (Psychiatrist to keyclowns)
>wrote:
>> Steveo <moparholic@hotmail-nospam.com> wrote in message
>> news:<20041119061418.141$KS@newsreader.com>...
>> > keyklonzrnutjobs@yahoo.com (Psychiatrist to keyclowns) wrote:
>> > > Keith Hosman KC8TCQ <logdshr@nospam.bright.net> wrote in message
>> > > then she farted and flew out the window.
>> > >
>> > > Much better joke in your mirror, Judas.
>> > >
>> > Awww whatsamatta dogie? Didja get slapped on the cum catcher again?
>>
>> No, assmunch...but YOU did...heheheh
>>
>Can you help me install a skip shooter like yours, please? (does it talk
>better than it looks)? :-P
>
>http://img131.exs.cx/my.php?loc=img131&image=dogie04.jpg
>
>After-all, you're the professional fuckstick.

Professional? You mean that other guys pay him? Yuch!!

# 2649. Re: OT- night out on the town

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-24 00:37:04 UTC
From: Steveo <moparholic@hotmail-nospam.com>
Message-ID: <20041123193704.745$AN@newsreader.com>
Source record: 86246
Cross-posted to: rec.radio.cb,alt.dogie.is.an.idiot,rec.radio.amateur.policy,rec.radio.amateur.antenna

Lancer <lancer@ock..com> wrote:
> On 24 Nov 2004 00:09:37 GMT, Steveo <moparholic@hotmail-nospam.com>
> wrote:
>
> >N8WWM DOUG ADAIR-keyklonzrnutjobs@yahoo.com (Psychiatrist to keyclowns)
> >wrote:
> >> Steveo <moparholic@hotmail-nospam.com> wrote in message
> >> news:<20041119061418.141$KS@newsreader.com>...
> >> > keyklonzrnutjobs@yahoo.com (Psychiatrist to keyclowns) wrote:
> >> > > Keith Hosman KC8TCQ <logdshr@nospam.bright.net> wrote in message
> >> > > then she farted and flew out the window.
> >> > >
> >> > > Much better joke in your mirror, Judas.
> >> > >
> >> > Awww whatsamatta dogie? Didja get slapped on the cum catcher again?
> >>
> >> No, assmunch...but YOU did...heheheh
> >>
> >Can you help me install a skip shooter like yours, please? (does it talk
> >better than it looks)? :-P
> >
> >http://img131.exs.cx/my.php?loc=img131&image=dogie04.jpg
> >
> >After-all, you're the professional fuckstick.
>
> Professional? You mean that other guys pay him? Yuch!!
>
Sure is hard to figure. ($-David Allan Coe)

## 2650. Re: Single ground

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-24 01:49:53 UTC
From: Gary Schafer <gaschafer@comcast.net>
Message-ID: <v4l7q0d9rmh039tppt4o8oec9a1109bpv6@4ax.com>
Source record: 86247

On Tue, 23 Nov 2004 17:42:24 -0500, "Jack Painter" <223bthp@cox.net>
wrote:

>
>"Gary Schafer" <gaschafer@comcast.net> wrote
>>
>> Here is a quote from your previous post where the discussion was about
>> the tower and lines carrying strike current.
>>
>> >Jack Painter
>>
>> >First, a strike termination device is placed higher than other
>> >equipment with its own down conductor.
>>
>> Your reply when questioned about placing a down conductor in parallel
>> with the tower was:
>> >I never suggested such a silly thing! You mistake an earlier reference >I
>made to a bonding conductor.
>
>You're displaying dimensia Gary. You accused me of suggesting a #6 wire
>would be useful as a down conductor and I never said such a ridiculous
>thing. You misread the posts, or still don't understand most of the
>terminology that the entire electrical, fire protection, lightning
>protection and communication industry use to refer to bonding and grounding
>components.

Jack, my apologies. You did not suggest a #6 down conductor on such a
tower as I reread your original post. But you did suggest a down
conductor on the tower, you just didn't mention the size.

>
>in news:qBdod.15535$D26.3848@lakeread03... I said, and I quote:
>"Burying a grounding electrode conductor is normally a code requirement. But
>that is not what you have in connecting the tower ground system to the
>station ground, AC mains ground, etc. Those are bonding conductors, and they
>are in many cases required to be insulated. Not in this case, but I want you
>to understand the difference between grounding, voltage division from many
>grounds, and a bonding conductor between your station and the tower. The
>latter is to maintain equipotential, and will not carry more than just
>equalizing currents. It will be well within the capability of a #6 insulated
>wire, should you choose to use that."
>
>I'm not being condescending, if you're still confused there please say so,
>and I will try to explain it better.
>

>> As far as down conductors go you need to read farther to see what they
>> are using them for. We are talking about towers here. No down
>> conductors needed. If you are talking about a building or wooden pole
>> mounted antenna then that's a different story.
>
>Its clear to me who needs to do the reading here. Your last shot was also
>wide of the mark regarding down conductors on towers. They are used on
>communication towers in exactly the same fashion as they are on any
>structure, to provide a dedicated path to a grounding electrode for the
>charge received by a strike termination device. A tower down conductor is
>bonded to the tower frames in many places, that's the same as a down
>conductor on any structure is bonded to metal stairways, handrails, roof
>flashing, etc. on its way to ground.

DOWN CONDUCTOR ON A BUILDING:
A down conductor on a building is a whole different deal than on a
tower. On a building the "metal stairways, handrails, roof flashing,
etc." are bonded to prevent flashovers as the down conductor runs by.
The down conductor is run because there is no better path to connect
to.

DOWN CONDUCTOR ON A TOWER:
My comments about a down conductor on a tower were based around the
fact that a down conductor on such a tower is useless. Tower joints
should be bonded to negate any resistance in the joints but a down
conductor the length of the tower is a waste of wire. I was trying to
point out that any down conductor, coax cables or anything else
running down the tower, including the tower, would all share the
lightning energy. It is impossible to isolate any part.

The fact that a typical tower has so much mass, and as a result much
lower inductance, in comparison to any down conductor that you could
hang on the tower negates it's usefulness.

And yes, I know that some people do install down conductors on towers.
Some people also hang pointy dissipation arrays on the top of their
tower too.

Some engineers and "communications managers" specify them also. Hams
don't have a lock on ignorance in this department.

>
>>
>> The applications of grounding and bonding principles are not reserved
>> for an elite society of engineers and electricians as you might like
>> to think. They are free and available to all. There are no secrets
>> involved.
>
>Please don't take my comments so far out of context. But you're right it is
>reserved, its reserved for those who pay the fees and time to subscribe to
>organizations that license the printing of the codes, and constantly discuss
>and explain changes, applications and plan future requirement for them.

I would guess then that the general library is also "reserved".

>
>> Quoting a load of authoritative directives is not a substitute for
>> understanding.
>>
>> It is a play of semantics when you say " an important distinction to
>> understand the difference between bonding and grounding". I would
>> guess that it does not take too much study to understand that real
>> ground can not be half way up a tower. So whether you are "bonding" or
>> "grounding" a cable on a tower, the end result is unmistakably the
>> same.
>
>Neither should it be as oversimplified as your rebuttal. They are not the
>same thing and to misunderstand it would be to make deadly mistakes when
>applying those principles, both outside and inside structures where external
>equipments connect to people.

They are the same thing when we are talking about bonding or grounding
on the tower itself, which is where that discussion spawned from.
When you start jumping to other subjects then they may or may not be
the same thing.
Sometimes it is difficult to tell what you are discussing as you want
to throw so many things into the fire.

>
>>
>> It seems that some of the discontinuity may come from lack of basic
>> understanding of RF principles. Lightning is not just a direct current
>> event that requires only consideration for high currents.
>>
>
>This is a subterfuge to divert the attention from the basics we were
>discussing, and until that is resolved there is no room for discussion about
>protection design based on frequencies of structures and wiring in the near
>field, or the AC components of lightning.

No diversion intended. Only a notice to read the other side of the
page.
I thought we were discussing lightning strike dissipation and
preventing it from reaching the shack. How can you ignore the AC
components? They are a major part of it.

>
>> As far as buried cables go:
>> I will ask the same question again that you avoided from last time but
>> instead provided mounds of quotes that do not address the point.
>>
>> "Do you think that you can bury the feed wire for your long wire
>> antenna and have it work very well? What do you think will happen to
>> the RF on it? Will it make it all the way back to your receiver the
>> same as it would if it were above ground?"
>>

>> This is a very relevant to "buried coax lines".
>
>I ignored that question because I thought it had no relevance to anything
>here. Maybe you can rephrase what you are asking please? We are talking
>about shielded coax, and the relationship between lightning and the thin
>outer covering of coax, the coax shield, the inside dialectric, and the
>center conductor are quite unique and not convertible to a relationship with
>bare wire feed of some long wire. My coax feedlines are buried - so I don't
>hit them with the lawn mower! But it doesn't mean anything to lightning to
>have your coax buried, unless you hire a trencher to sink them deeper than
>the ground rods. In a near field strike there will be massive and
>sufficient energy to make all that shield grounding, bonding and placement
>of arrestors real important. And it won't matter where the coax is if all of
>those requirements are not met. if you think your coax is protected under
>your lawn, lay some turf over your radios and protect them the same way.
>It's a wives tale Gary, just like so many RF-wives tales, only there are
>more capable folks here to dispel those.
>

BURIED COAX:
The relevance here was explained in my first post on the subject.
Let's try again. I asked if you thought that if you buried the feed
wire from your long wire antenna, it can be insulated if you choose
but a single wire, if you would get as much signal from your antenna
to your receiver as you would if that same feed wire was not buried
but run in the air away from ground. What do you think would happen to
the RF on that feed wire? Do you think that it would go unattenuated
the same as it would if the wire was in the air? Or would you loose
most of the signal if it were buried?

This is relevant to burying the coax lines coming off a tower and
leading into your shack. The coax shield will be carrying large
amounts of lightning energy during a strike that it receives when the
top of the tower is struck. Even though the coax is grounded at the
base of the tower. since there is no perfect ground system you are not
going to be able to dump all the energy to the tower ground.

For the moment forget about possible induced currents into the cable
itself from nearby strikes etc.

73
Gary K4FMX

>73,
>Jack Painter
>Virginia Beach VA
>

# 2651. Re: Single ground

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-24 02:48:47 UTC
From: Jack Painter <223bthp@cox.net>
Message-ID: <IESod.3924$SA.1368@lakeread02>
Source record: 86248

"Gary Schafer" <gaschafer@comcast.net> wrote

> Jack, my apologies. You did not suggest a #6 down conductor on such a
> tower as I reread your original post. But you did suggest a down
> conductor on the tower, you just didn't mention the size.

O.k. Gary. And I didn't mean to suggest a down conductor on a tower either, as its true there is little evidence that it carries more than 25-30% of the total energy with the tower carrying the balance. But it sure is specified in a LOT of places. I follow specifications to the letter unless there is clear evidence that in my particular facility it could be harmful or counterproductive.

> DOWN CONDUCTOR ON A BUILDING:
> A down conductor on a building is a whole different deal than on a
> tower. On a building the "metal stairways, handrails, roof flashing,
> etc." are bonded to prevent flashovers as the down conductor runs by.
> The down conductor is run because there is no better path to connect
> to.
>
> DOWN CONDUCTOR ON A TOWER:
> My comments about a down conductor on a tower were based around the
> fact that a down conductor on such a tower is useless. Tower joints
> should be bonded to negate any resistance in the joints but a down
> conductor the length of the tower is a waste of wire. I was trying to
> point out that any down conductor, coax cables or anything else
> running down the tower, including the tower, would all share the
> lightning energy. It is impossible to isolate any part.

The odd system or two specifies isolated tower down conductors. A majority proscribe down conductors and bonding the entire length, and another small percentage use an air terminal but bond it directly to to the tower legs and eliminate the down conductor. Please don't use PolyPhaser's toy lightning machine antics as evidence there. Big industry and government spend millions bringing rocket-triggered lightning down towers all the time, and if down conductors are still being specified they must help. How much, and if it applies to a typical ham tower, let the user decide I guess.

>
> The fact that a typical tower has so much mass, and as a result much
> lower inductance, in comparison to any down conductor that you could
> hang on the tower negates it's usefulness.
>
> And yes, I know that some people do install down conductors on towers.
> Some people also hang pointy dissipation arrays on the top of their
> tower too.

>
> Some engineers and "communications managers" specify them also. Hams
> don't have a lock on ignorance in this department.

That's true, but maybe 25-30% of the energy directed on a faster path via down conductor means something, I have not seen why. The ESE Dissipaters however - another ball of ceiling wax and snake oil. Throughly disproven yet to this minute it ties up the Lightning Standards Group of the IEEE while they fight over the language to discredit it with. There is also at least one insurance company that discounts for use of the CTS (Charge Transfer System). There is no reliable science behind this theory but it hangs on...

> >Please don't take my comments so far out of context. But you're right it
is
> >reserved, its reserved for those who pay the fees and time to subscribe
to
> >organizations that license the printing of the codes, and constantly
discuss
> >and explain changes, applications and plan future requirement for them.
>
> I would guess then that the general library is also "reserved".

A good library might have at least the NEC-70 (Electrical code). You can buy the NFPA-780 Standard for the Installation of Lightning Protection Systems for about $40 from NFPA directly. The October 2004 edition is the latest. The full NEC-70 is a lot more.

> Sometimes it is difficult to tell what you are discussing as you want
> to throw so many things into the fire.

Roger that, sorry. My brain is awash with this stuff but it has been the most productive, interesting and generally most fun project I have taken on in years.

> I thought we were discussing lightning strike dissipation and
> preventing it from reaching the shack. How can you ignore the AC
> components? They are a major part of it.

I think we were trying to answer a posters question about grounding the coax shield before it meets an arrestor, yes.

> BURIED COAX:
> The relevance here was explained in my first post on the subject.
> Let's try again. I asked if you thought that if you buried the feed
> wire from your long wire antenna, it can be insulated if you choose
> but a single wire, if you would get as much signal from your antenna
> to your receiver as you would if that same feed wire was not buried
> but run in the air away from ground. What do you think would happen to
> the RF on that feed wire? Do you think that it would go unattenuated
> the same as it would if the wire was in the air? Or would you loose
> most of the signal if it were buried?
>
> This is relevant to burying the coax lines coming off a tower and

> leading into your shack. The coax shield will be carrying large
> amounts of lightning energy during a strike that it receives when the
> top of the tower is struck. Even though the coax is grounded at the
> base of the tower. since there is no perfect ground system you are not
> going to be able to dump all the energy to the tower ground.
>
> For the moment forget about possible induced currents into the cable
> itself from nearby strikes etc.

Lets come back to that then, because it would require DEEP burying to avoid (It is commonly avoided by shield grounding, arrestors, grounded steel conduit, geometry, and distance). Anyway, yes, there would be some attenuation from a cheap wire insulator that was not designed to prevent RF from travel in either direction. But 95% or greater coax shielding with its dialectric inner liner is designed to keep RF from penetrating. While it allows travel on its inner and outer shield covers during some oddities of RF behavior, it does not allow attenuation of the RF signal by design. Then lets agree it's designed to be 50ohm, or 60ohm, if you want to use the anal British system (which we know is actually correct there Limeys). So if the point you were making was just that some inductance from earth is felt (even on coax) - I can't disagree, but neither would this wildly high impedance to even wet earth impress lightning in the least bit. In dry soil it would be invisible for all practical purposes. After all we stress the need to ground (via 8-10' of copper electrode) the coax shield (and the center conductor via arrestors) so what good is insulated earth? That was my point, and unless you count on unprotected coax breaking-down and arcing into the earth along its length, the burying part is just a no-gain event (just like a tower downcomductor???) Substantially all of the energy from a tower or antenna strike is already on the coax and it's first arrestor, top-shield bond, (middle shield bond if you like) and tower bottom shield ground (and another arrestor if you like) at the same time. Its even on the GROUND at the same time. They all rise in near unison within about 5 microseconds and fall in potential within 20-40 micro seconds. Where damage usually occurs is when unprotected coax has a distant ground only, and the voltage remains high its entire length as a result. This is where I believe you might tempt the voltage out anywhere along a buried path, maybe in thousands of little holes. It could just as easily happen laying on the ground though, so I fail to see what surrounding it in dirt can do. Apparently so do engineers who specify controls and installation procedures. That doesn't mean your argument can't be a good one. I just don't see it as that yet.

73,
Jack Painter
Virginia Beach VA

# 2652. Test Post

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-24 03:15:17 UTC
From: Frank <ve6cb@NOSPAM.telus.net>
Message-ID: <91Tod.15305$l65.4737@clgrps13>
Source record: 86249

```
2
29.8
93.8
15.7:1
66.3

3.8
108.8
637.1
12.6:1
83.4

5
251.0
58.0
1.8:1
95.4

7.2
999.2
-1380.8
6.8:1
99.0

10
516.0
-1850.1
16.7:1
68.0

14.2
1287.2
-989.0
4.1:1
98.9

18
314.7
861.2
7.2:1
81.3

21.2
1095.7
-914.7
3.3:1
```

98.6

25
301.4
671.9
5.3:1
82.7

28.6
668.8
-712.1
3.6:1
98.2

# 2653. Re: Cobra UltraLite Multi-band Antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-24 03:49:20 UTC
From: Frank <ve6cb@NOSPAM.telus.net>
Message-ID: <4xTod.15314$l65.10001@clgrps13>
Source record: 86250

> Hi Frank,
>
> I gave this several passes with various segmentations.
>
> The best, flattest response appeared at 400 (total) segments over a
> 10M length of line of #24 separated by 1". This resulted in a
> characteristic 575 Ohm line with a 1.045:1 SWR ripple over the 2 MHz
> to 30 MHz band.
>
> When I doubled and then tripled the segments, the low end got a little
> whacked out (getting worse as the segments went up).
>
> I was working from many segments down, so I did not lower the count to
> your longer segments - maybe tomorrow, I was paying attention to your
> (and EZNEC's) advice about segment length equaling line separation.
>
> 73's
> Richard Clark, KB7QHC

Hi Richard:

Found some three conductor zipcord and measured its dimensions: wire, stranded, #14 AWG, center to center spacing 3.5mm (0.138"). Experimented with a 100ft NEC transmission line model, with various segmentations from 4" to 16". Characteristic impedance agreed with :- 276*log(2*S/d) at 171 Ohms, where S is the center to center wire spacing, and d is the wire diameter. From your comments it seems EZNEC is in close agreement with my NEC program.

Applied the above dimension to a 140 ft "Cobra" type antenna at 35 ft above an average ground of: sigma 5 mS/m, and Er = 13. The antenna was segmented at 6". Hope the formatting of the following results is not totally destroyed by Microsoft's Outlook Express.

Cobra Antenna:

Freq Re Im S Eff.
(MHz) (450) (%)
2 29.8 93.8 15.7 66.3
3.8 109 637 12.6 83.4
5 251 58 1.8 95.4
7.2 999 -1381 6.8 99.0
10 516 1850 16.7 68
14.2 1287 -989 4.1 98.9
18 315 861 7.2 81.3
21.2 1096 -915 3.3 98.6

25 301 672 5.3 82.7
28.6 669 -712 3.6 98.2

140 ft Dipole compared

Freq Re Im S Eff.
(MHz) (450) (%)
2 8.8 -856 235 66.3
3.8 79 238 7.3 83.3
5 361 1127 9.8 95.4
7.2 1959 -2379 13 99
10 111 -195 4.9 68
14.2 2581 -2020 9.3 98.9
18 181 251 3.4 81.3
21.2 2225 -1871 8.5 98.6
25 188 233 3.1 82.7
28.6 1252 -1577 7.4 98.2

If the NEC models are correct there does not seem to be a lot of difference between the "Cobra" and a 140 ft dipole. Interesting to note that the Imaginary part of Zin, at 2 MHz is still >0. With 100 ft of 450 Ohm line on 2 MHz the loss is only 0.12 dB compared with 1.5 dB on the regular dipole.

# 2654. Re: DIY - Anyone built one of these - KIT : Deluxe Receiver HF Multicontroller (Multicoupler) Kit

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-24 03:52:28 UTC
From: "Michael St. Angelo" <mstangelo@comcast.net>
Message-ID: <-MednS_Mas_mmDncRVn-sw@comcast.com>
Source record: 86251
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew

"RHF" <rhf-newsgroups@pacbell.net> wrote in message
news:ff3145e8.0411220226.33eddc63@posting.google.com...
> Do-It-Yourself (DIY) Project ?
>
> Q#1 - Has anyone "Built" one of these Kits ?

Yes. I enjoy building. I usually build something, test it out, and go to the
next project.
>
> Q#2 - How does the "Assembly" of the Kit go ?

The kit is for an intermediate builder. It went well because the assembly is
well
documented. The is lots of mechanical assembly on the front and rear panels
because
of the number of switches, LED's and connectors.
>
> Q#3 - Does the "Finished" Kit perform well enough so that it is
> 'worth' the Money and Time to built it ?

It does a good job, and the construction is solid but the video amplifier
chip
is noisier than passive splitters. I have lots of receivers in the workshop
and
having the ability to drive 8 receivers is a godsend, however. I also
listen to low
frequency signals (below 500khz) and it does a good job in this region. For
lf reception I replaced the 0.1uf coupling capacitors with 1.0uf units.
>
> Q#4 - Are there 'cheaper' Lower Cost Ready-Made alternatives
> to this "Kit" ?

The purpose of the switches is to enable each receiver by controlling the
mute.
If you don't need to control the mute of you receivers and don't need a
preamp
you might look a some passive splitters from minicircuits labs. The passive
splitters
will have loss, however. A 4 way splitter has 6db loss; an 8 way splitter
9db, so you would
need a preamp.
>

## 2655. Re: Single ground

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-24 04:04:55 UTC
From: Gary Schafer <gaschafer@comcast.net>
Message-ID: <7p18q05ca16cm7vjqdf6o1i94ilpme90hf@4ax.com>
Source record: 86252

One last note on down conductors. You can figure out what the inductance of a particular gauge of wire is. You can also figure out what the inductance of a particular size tower is. Just looking at the size difference you can see that the inductance of the small wire in comparison to the tower will be many times greater. That equates the many times greater voltage drop on the small wire. I would say that carrying 25% to 30% of the total current would be way optimistic. It is not just the gauge of the wire verses the gauge of the tower legs but how much inductance each presents. The cross section area of the face of the tower makes for less inductance as well as the size of the legs.

RADIALS
Buried radials make an excellent lightning ground system. An AM broadcast tower ground system is an example. Not only is it an excellent Radio ground but it is also an excellent lightning ground.

Running radials out from the base of a tower that you want to ground is a big plus in addition to ground rods I think you will have to agree.

It is suggested that many shorter radials be used rather than a few long ones in a lightning ground system. The reason is that the inductance gets too high to do much good as the length gets long.

Also long ground rods suffer the same fate. Too long and the inductance is so high. That is one reason why additional shorter rods are recommended rather than very long rods.

COAX LINES
Only talking about the energy on the OUTER SHIELD of coax here now. With buried coax lines coming from the tower they serve the same as a radial tied to the tower. They will dissipate some of the energy just the same as a radial will. And they do not have to be bare copper shield lines to do so either.

This was where I was going with the buried insulated single wire long wire lead.

By the time the energy on the shield of the cable reaches the shack, part of it has dissipated by the coupling to earth. Also the impedance seen at that end is much higher than it is at the tower end of the coax.
Just like the radial. The ground is a choke if you will.
Add ferite beads on a transmission line and you greatly limit the amount of RF current that gets past on the shield. That is what the

earth does to the coax line buried.

73
Gary K4FMX

# 2656. Re: Zo and Ro

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-24 04:28:38 UTC
From: radio913@aol.com
Message-ID: <1d15af91.0411232028.2438d7bc@posting.google.com>
Source record: 86253

Wes Stewart <n7ws_@_yahoo.com> wrote in message
news:<d7p6q0tidhpjlc63knrlgcj7bblap0cb0r@4ax.com>...
> On 23 Nov 2004 07:36:11 -0800, radio913@aol.com (Dr. Slick) wrote:
>
> [snip]
> | Since i trust Les Besser more than
> |other people,
>
> Heh heh. Reminds me... I took his video taped course, "RF/Microwave
> Transistor Amplifier Design".
>
> I was watching one tape at home while the XYL was making dinner. She
> could hear the audio and finally asked me to turn it off since it was
> making *her* fall asleep. [g].
>
> Really smart guy, but not a very dynamic speaker.

Hehe! Yeah, also not exactly the
sexiest guy on the planet, is he!

I have his full RF Fund. course One
and Two on tape, like 12 tapes in all.

We should have a Les Besser Get
together sometime. Wooohaaa!

Fun!

Slick

# 2657. Re: Zo and Ro

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-24 04:30:03 UTC
From: radio913@aol.com
Message-ID: <1d15af91.0411232030.42e10ea3@posting.google.com>
Source record: 86254

Cecil Moore <w5dxp@hotmail.com> wrote in message news:<41a38bc0$1_1@127.0.0.1>...
> Dr. Slick wrote:
> > Well, that is pretty entertaining and
> > interesting, i will admit. However, the
> > result isn't very practical...
>
> On the contrary, the result is extremely practical and
> isn't very ideal, just like real-world physics. :-)

When was the last time you used

"G = C * R / L" for anything?

Slick

# 2658. Re: Cobra UltraLite Multi-band Antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-24 05:00:47 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <0058q059i1hadvk1517h28u95fj3d8nqqj@4ax.com>
Source record: 86255

On Wed, 24 Nov 2004 03:49:20 GMT, "Frank" <ve6cb@NOSPAM.telus.net>
wrote:
>If the NEC models are correct there does not seem to be a lot of difference
>between the "Cobra" and a 140 ft dipole.

Hi Frank,

So it would seem.

Hi Bert,

You asked for comments, but you've been quite silent yourself. Would
you think that the extra wire was worth the $90? Would you think you
could trust testimonials, especially those claiming 2 S-Units gain
over a G5RV?

73's
Richard Clark, KB7QHC

# 2659. Re: Zo and Ro

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-24 05:02:29 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41a413e4$1_4@127.0.0.1>
Source record: 86256

Dr. Slick wrote:
> When was the last time you used
> "G = C * R / L" for anything?

Yesterday.

# 2660. Re: Zo and Ro

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-24 05:58:21 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <1qVod.49051$QJ3.32680@newssvr21.news.prodigy.com>
Source record: 86257

Cecil Moore wrote:
> Dr. Slick wrote:
>
>> When was the last time you used
>> "G = C * R / L" for anything?
>
>
> Yesterday.

Just curious, Cecil. What were you using a distortionless line
for?
Tom Donaly, KA6RUH

# 2661. Re: DIY - Anyone built one of these - KIT : Deluxe Receiver HF Multicontroller (Multicoupler) Kit

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-24 06:01:55 UTC
From: rhf-newsgroups@pacbell.net
Message-ID: <ff3145e8.0411232201.3283fd78@posting.google.com>
Source record: 86258
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew

= = = "Michael St. Angelo" <mstangelo@comcast.net> wrote in message
= = = news:<-MednS_Mas_mmDncRVn-sw@comcast.com>...
> "RHF" <rhf-newsgroups@pacbell.net> wrote in message
> news:ff3145e8.0411220226.33eddc63@posting.google.com...
> > Do-It-Yourself (DIY) Project ?
> >
> > Q#1 - Has anyone "Built" one of these Kits ?
>
> Yes. I enjoy building. I usually build something, test it out, and go to the
> next project.
> >
> > Q#2 - How does the "Assembly" of the Kit go ?
>
> The kit is for an intermediate builder. It went well because the assembly is
> well
> documented. The is lots of mechanical assembly on the front and rear panels
> because
> of the number of switches, LED's and connectors.
> >
> > Q#3 - Does the "Finished" Kit perform well enough so that it is
> > 'worth' the Money and Time to built it ?
>
> It does a good job, and the construction is solid but the video amplifier
> chip
> is noisier than passive splitters. I have lots of receivers in the workshop
> and
> having the ability to drive 8 receivers is a godsend, however. I also
> listen to low
> frequency signals (below 500khz) and it does a good job in this region. For
> lf reception I replaced the 0.1uf coupling capacitors with 1.0uf units.
> >
> > Q#4 - Are there 'cheaper' Lower Cost Ready-Made alternatives
> > to this "Kit" ?
>
> The purpose of the switches is to enable each receiver by controlling the
> mute.
> If you don't need to control the mute of you receivers and don't need a
> preamp
> you might look a some passive splitters from minicircuits labs. The passive
> splitters
> will have loss, however. A 4 way splitter has 6db loss; an 8 way splitter
> 9db, so you would

> need a preamp.
> >

MSA,

Thank You for your Reply as well as the replies of the others.

tyvm ~ RHF
.
.

# 2662. Re: surveillance receiver aerial

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-24 07:07:51 UTC
From: Bob Bob <bcnntp@optusnet.com.au>
Message-ID: <8jod72-aoe.ln1@p400bob.lse.com.au>
Source record: 86259

Gidday

I would suspect that the recorder unit you have is not really intended
to take a remote antenna.

Generally speaking an aerial will be a single core. The core and screen
thing you are thinking of is likely to be coaxial cable, what you could
join a aerial to a receiver with. It isnt normally suppose to pickup or
radiate signal.

Connecting the existing wing mounted aerial *might* work but you may
receive a lot of noise from car accessories/ignition etc. If your
receiver had a coaxial connector on it things would be a lot easier!

The length of the aerial is nominally a function of the operating
frequency but I doubt the unit you have would be critical in that
regard. It wont hurt to extend the aerial anyway you like. Try it!
"Real" aerials connected to transmitters tend to require tuning to work
efficiently, but since you dont know the parameters of the device you
are connecting to it there isnt much point trying to work it out..

Your biggest enemy of receiving a good signal will be if the aerial is
inside the car metalwork.. If you cant stick it out the window then at
least have it at glass level. You may find that mounting it on the sun
visor would be a good position.

Also note that mounting the transmitter and its aerial is also
important. Try and not bury it in a metalwork and if possible put it
next to a window.

Apologies for not being much help.

Cheers Bob VK2YQA (Sydney Australia)

zentace wrote:
> Hello
>
> Hope someone out there can help!
> I've just started a private investigator business.
> Part of the equipment I use is a recorder/receiver unit (basically a
> sony tape machine with a receiver built on to it). The aerial appears
> to be a black plastic coated, bendy single wire 16cm long with a small
> 3mm (approx) screw thread on the end which screws into the receiver.
> It appears to be single core, in that, the screw thread is a solid
> piece (not like a two piece jack plug for example).
>
> I want to be able to connect an external car ariel to the receiver as

> at present the receiver with the aerial screwed in is hidden inside
> the car and the reception is very poor.
>
> Some questions:
> Is the aerial single core? I naively thought all aerials had a core
> and screen.
>
> Could I take a connection from the centre core of an existing wing
> mounted car aerial and run a single wire to the receiver inside the
> car?
>
> If I used this method would the external car aerial have to be 16cm,
> same as the plastic aerial?
>
> Can these small 3mm screw threads on the end of the existing aerial be
> bought from somewhere so I could connect my external aerial to the
> receiver?
>
> I hope this all makes sense and I would be very grateful for any
> advice.
>
> Thank you

# 2663. Re: Zo and Ro

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-24 12:37:16 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41a47e7b$1_5@127.0.0.1>
Source record: 86260

Tom Donaly wrote:
> Cecil Moore wrote:
>
>> Dr. Slick wrote:
>>> When was the last time you used
>>> "G = C * R / L" for anything?
>>
>> Yesterday.
>
> Just curious, Cecil. What were you using a distortionless line
> for?

Methinks you jumped to conclusions. Slick didn't ask when was
the last time I used a distortionless line. He asked when was
the last time I used the equation "G=C*R/L" for anything. I'm
using it right now. I used it yesterday to refresh my memory
about distortionless lines which I did use quite often before
I retired from Intel in 1998. If I presently held a job in the
cable modem group, I suppose I would still be using them.
--
73, Cecil http://www.qsl.net/w5dxp

# 2664. Re: What's the best Source of Info On Rhombics?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-24 14:12:39 UTC
From: fractenna@aol.com
Message-ID: <20041124091239.21604.00000951@mb-m11.aol.com>
Source record: 86261

Laport

# 2665. Re: Zo and Ro

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-24 15:13:07 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <7y1pd.49098$QJ3.12779@newssvr21.news.prodigy.com>
Source record: 86263

Cecil Moore wrote:
> Tom Donaly wrote:
>
>> Cecil Moore wrote:
>>
>>> Dr. Slick wrote:
>>>
>>>> When was the last time you used
>>>> "G = C * R / L" for anything?
>>>
>>>
>>> Yesterday.
>>
>>
>> Just curious, Cecil. What were you using a distortionless line
>> for?
>
>
> Methinks you jumped to conclusions. Slick didn't ask when was
> the last time I used a distortionless line. He asked when was
> the last time I used the equation "G=C*R/L" for anything. I'm
> using it right now. I used it yesterday to refresh my memory
> about distortionless lines which I did use quite often before
> I retired from Intel in 1998. If I presently held a job in the
> cable modem group, I suppose I would still be using them.
> --
> 73, Cecil http://www.qsl.net/w5dxp

I'm surprised the golden ears croud hasn't discovered distortionless
lines as a means of separating the gullible from their gold.
73,
Tom Donaly, KA6RUH

# 2666. Fearless Radio || Internet Radio || No FCC, No Apologies

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-24 15:20:41 UTC
From: Jerry Gacia <jerrygarcia@orrn.com>
Message-ID: <381d2$41a4a45e$44a657e2$29208@msgid.meganewsservers.com>
Source record: 86262

Fearless Radio is a brand new internet radio site. Celebrating old school format of provocative talk and original music, brought to you by the people for the people. While your at the office or just surfing the web, log on and take a listen.

Be sure to check out our shows

Ghetto Boy and Bill Live - Monday through Friday 11-1 Central Time

Ann Marie in the City - Monday through Friday 1PM, 7 PM, 11PM Central Time

Mac and Slater - 2 - 4 Monday through Friday

Music thoughout the day

Fearless Radio

No FCC, No Apologies

www.fearlessradio.com

# 2667. Re: Zo and Ro

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-24 18:58:26 UTC
From: radio913@aol.com
Message-ID: <1d15af91.0411241058.136ad661@posting.google.com>
Source record: 86264

Cecil Moore <w5dxp@hotmail.com> wrote in message news:<41a413e4$1_4@127.0.0.1>...
> Dr. Slick wrote:
> > When was the last time you used
> > "G = C * R / L" for anything?
>
> Yesterday.

Oh really? Please explain
in detail?

S.

# 2668. Re: I passed

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-24 20:04:37 UTC
From: cw <c._.w@virgin.net>
Message-ID: <pP5pd.139$zY5.67@newsfe5-gui.ntli.net>
Source record: 86269

where do you start? My local club advertise coursed but they don't return my emails.

"Shadow_998" <hrd998cc@yahoo.nospam.com> wrote in message news:GQfnd.46278$QJ3.16653@newssvr21.news.prodigy.com...
> I just wanted to say to this group: I am now KG6TDX/AG
>
> I posted this to the antenna group because this is where I have posted most
> of my amateur radio questions over the past year (and have gotten the best
> answers as well!)
>
> I hope to catch some of you on HF soon.
>
> 73, Russ
>
>

## 2669. Lahlum method of phasing?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-24 20:37:26 UTC
From: larry d clark <buddycl@swbell.net>
Message-ID: <ai6pd.24068$fC4.15392@newssvr11.news.prodigy.com>
Source record: 86265

ran across "Lahlum method of phasing antennas" on the
net and subsequent google searches reveals very little
info. can anyone enlighten me, provide urls?

larry
kd5foy

# 2670. Re: I passed

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-24 21:13:57 UTC
From: "Dee D. Flint" <deeflint01@comcast.net>
Message-ID: <8K6dndw7UrsGZDncRVn-oA@comcast.com>
Source record: 86267

"cw" <c._.w@virgin.net> wrote in message
news:pP5pd.139$zY5.67@newsfe5-gui.ntli.net...
> where do you start? My local club advertise coursed but they don't return
my
> emails.
>

Try telephoning instead of email. Or you can get the books from W5YI or
ARRL on the internet and study on your own. Many have passed the tests this
way.

Dee D. Flint, N8UZE

>
> "Shadow_998" <hrd998cc@yahoo.nospam.com> wrote in message
> news:GQfnd.46278$QJ3.16653@newssvr21.news.prodigy.com...
> > I just wanted to say to this group: I am now KG6TDX/AG
> >
> > I posted this to the antenna group because this is where I have posted
> most
> > of my amateur radio questions over the past year (and have gotten the
best
> > answers as well!)
> >
> > I hope to catch some of you on HF soon.
> >
> > 73, Russ
> >
> >
>
>

## 2671. Hex Beam

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-24 22:41:03 UTC
From: John <my-callsign@qsl.net>
Message-ID: <368pd.187$zY5.168@newsfe5-gui.ntli.net>
Source record: 86268

Please can any one advise me of a european dealer for the Traffie HexBeam?

Thanks

John

g4irn

# 2672. Re: Hex Beam

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-24 22:54:47 UTC
From: Eskay <sieb@netrover.com>
Message-ID: <1e0iwox9e08p6$.1j3rdnd4bfnj$.dlg@40tude.net>
Source record: 86266

On Wed, 24 Nov 2004 22:41:03 GMT, John wrote:

> Please can any one advise me of a european dealer for the Traffie HexBeam?
>
> Thanks
>
> John
>

I'm pretty sure there is no one in Europe.
I would suggest that you join the Hexbeam group in Yahoo groups.
Very helpfull, especially if you want to build your own.
Not impossible to do.
73 de Sieb VE3JUA.

# 2673. Re: MUFF

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-24 23:25:37 UTC
From: J Tabor <denews@taborsoft.com>
Message-ID: <0tedncwiIoHphTjcRVn-ig@amaonline.com>
Source record: 86271

for MUF/FOT Map and more --
www.taborsoft.com/gawiz

--
email sent to: denews@taborsoft.com
is discarded without being seen.
Sorry for any inconvenience.
"KD4PQF" <willybe@isp.com> wrote in message
news:1f9bb743.0411211250.40671ad8@posting.google.com...
> For all those like me and cant read a muff map. download "ham cap "
> by VE3NEA.. great little program if its in the red on the band you
> want chances are you can talk to that area.
>
> KD4PQF

# 2674. Re: Single ground

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-24 23:40:41 UTC
From: Jack Painter <223bthp@cox.net>
Message-ID: <_Z8pd.4020$SA.3067@lakeread02>
Source record: 86270

> RADIALS
> It is suggested that many shorter radials be used rather than a few
> long ones in a lightning ground system. The reason is that the
> inductance gets too high to do much good as the length gets long.

50' is the number generally used as the longest effective run of an
individual radial arm for lightning protection.

>
> Also long ground rods suffer the same fate. Too long and the
> inductance is so high. That is one reason why additional shorter rods
> are recommended rather than very long rods.

Up to 100' lengths of 1" copper clad steel ground rod are often sunk in order to obtain < 25 ohm resistance. < 5 ohm would be better but some soil condtions (such as dry sand) may be 1000 ohms. Bentonite and other similar soil-conditioners cannot be used effectively in sand, that is unless they occupy a deep 3' diameter hole. Here's an interesting anamoly in the NEC, which requires grounding electrode resistance to be < 25 ohm at the service entrance ground. If that cannot be accomplished, then a second ground electrode must be used. But there is no requirement to test the results after the second grounding electrode is added! It could easily be 400 ohms after two rods sunk in terrible soil, and yet it meets the code. There are few such glaring examples of short sightedness in the NEC, but engineers and contractors both have to be aware of these problems to design and build safe lightning protection systems.

According to both NEC and NFPA, the first grounding electrode coming off a structure may be shorter if conditions require, but then must be followed with a second electrode no shorter than 8' long and sunk to a depth of 10'. This is brand new in the 2004 edition btw. The minimum 8' long rod sunk to depth of 10' remains the code *minimum* in all other standards and applications where grounding electrodes are required. Distance between electrodes should be not less than sum of both their lengths. O.K. there is another little anamoly, since this does not take into account having to reach down 100' to find low resistance ground! Of course UFER grounds are also well accepted and commonly specified. This relates to another FAVORITE wives tale of hams, that is that tower foundations will explode if the grounding system goes into its concrete. There is not one documented case of this happening, yet the fable continues. It's true masonry and lightning do not get along well at all, but bonded conductors inside concrete foundations make it an excellent grounding system. It has been used world wide for decades.

>
> COAX LINES

> Only talking about the energy on the OUTER SHIELD of coax here now.
> With buried coax lines coming from the tower they serve the same as a
> radial tied to the tower. They will dissipate some of the energy just
> the same as a radial will. And they do not have to be bare copper
> shield lines to do so either.
>
> This was where I was going with the buried insulated single wire long
> wire lead.

We do now agree with where you were going. But I hope I can show you it's not a place you want to hold any faith in protecting equipment with.

> By the time the energy on the shield of the cable reaches the shack,
> part of it has dissipated by the coupling to earth. Also the impedance
> seen at that end is much higher than it is at the tower end of the
> coax.
> Just like the radial. The ground is a choke if you will.
> Add ferite beads on a transmission line and you greatly limit the
> amount of RF current that gets past on the shield. That is what the
> earth does to the coax line buried.

I understand what you are saying, thanks. Lets leave the ferrites alone though, because they can't shunt energy into dirt that doesn't have them, and if this was effective for lightning protection we would all use ferrite-shielded coax, right?

Back to the coax shield now - are you aware what is the most voltage that standard coax can carry? It's about 5,500v. At close to 4,500v coax dielectric breaks down and inner and outer conductors become "one". Close to 5,500v, the outer insulator of coax fails (similar to house wiring at 6,000v). Above breakdown voltage there will be flashovers to any object of lower potential, including the air in some cases. At anything less than breakdown voltage, you could hold the coax in a gloved hand and not feel anything. And neither would the earth, if that's where it was laying.

Let's review: It does not matter one bit whether you bleed off some RF energy out of a coax underground, because up to 5,500v of DC energy is going to get through with absolutely no affect from being near the dirt. And at over 6,000v nothing is going anywhere through that coax any more, it has reached breakdown and arcs over, melting and expelling the remains of its conductive materials all over the place. I have several such samples in my collection btw.

Finally, this will conclude my points about not burying coax for lightning protection:
Unless coax feedlines are protected by shield grounding and lightning surge protection devices in the proper manner and locations, there is no hope for its survival in even a nearby strike, let alone a direct attachment. If they are properly protected, it does not improve this protection to bury them. Perhaps it would increase the longevity of some surge protection devices and arrestors by limiting some RF energy they would otherwise be presented with. You would have to ask them that question. I have never seen a manufacturer

of these devices require feedlines be buried, maybe they are missing this too. They do however require the devices we have talked about.

It's of course fine if you want to hide coax, possibly reducing some external RF affects *and* the manufacturer says it is designed for below frost-line burying. Mine are buried too.

73 AND HAPPY THANKSGIVING

Jack Painter
Virginia Beach VA

# 2675. Re: MUFF

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-25 00:09:46 UTC
From: kelly@dvol.com
Message-ID: <d22b54c3.0411241609.1d8d7b4a@posting.google.com>
Source record: 86172

billybeeper@juno.com (William) wrote in message
news:<1e4e3692.0411230905.7228492a@posting.google.com>...
> willybe@isp.com (KD4PQF) wrote in message
news:<1f9bb743.0411211250.40671ad8@posting.google.com>...
> > For all those like me and cant read a muff map. download "ham cap "
> > by VE3NEA.. great little program if its in the red on the band you
> > want chances are you can talk to that area.
> >
> > KD4PQF
>
> To read a muff map, you've got to take your glasses off and get in real close.
>
> All kidding aside, MUF is maximum useable frequency. Red is good.

Fancy this: Brainiac shows up in dot antennas. Lotta gonads there.
However this is the proper venue for getting into inverted Ls vs. the
other venue. Care to take it from here?

w3rv

# 2676. Re: Kenwood 850 w/power supply

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-25 03:12:28 UTC
From: (unknown)
Message-ID: <41a54d85.1177072@news.state.ak.us>
Source record: 86173

$12

On Tue, 23 Nov 2004 15:45:03 -0500, "jaykay" <verak69@juno.com> wrote:

>I have a mint 850 for sale with its own power supply by Kenwood. It has 2
>filters. Also I have a cushcraft 140/440 stick and cushcraft 12 element
>beam w/rotor cables and all. The beam is vert/horiz for 2 M sideband Best
>offer takes all.
>John
>verak69@juno.com
>

# 2677. Re: Kenwood 850 w/power supply

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-25 03:21:40 UTC
From: #6 Fan <ve3tmt@yahoo.ca>
Message-ID: <tccpd.53132$Le1.1088153@news20.bellglobal.com>
Source record: 86174

<Norm> wrote in message news:41a54d85.1177072@news.state.ak.us...
> $12

You've obviously never owned an 850

# 2678. Re: Single ground

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-25 03:47:49 UTC
From: Gary Schafer <gaschafer@comcast.net>
Message-ID: <u6iaq0lfg7p4tk3jq0j9624b1g4i5ln52j@4ax.com>
Source record: 86175

On Wed, 24 Nov 2004 18:40:41 -0500, "Jack Painter" <223bthp@cox.net>
wrote:

>> RADIALS
>> It is suggested that many shorter radials be used rather than a few
>> long ones in a lightning ground system. The reason is that the
>> inductance gets too high to do much good as the length gets long.
>
>50' is the number generally used as the longest effective run of an
>individual radial arm for lightning protection.
>
>>
>> Also long ground rods suffer the same fate. Too long and the
>> inductance is so high. That is one reason why additional shorter rods
>> are recommended rather than very long rods.
>
>Up to 100' lengths of 1" copper clad steel ground rod are often sunk in
>order to obtain < 25 ohm resistance.

Those kind of lengths are only "last resort" ground systems if there
is no other possible way to get any sort of ground. The inductance
will be so high on that length that it will do little for lightning.

< 5 ohm would be better but some soil
>condtions (such as dry sand) may be 1000 ohms. Bentonite and other similar
>soil-conditioners cannot be used effectively in sand, that is unless they
>occupy a deep 3' diameter hole. Here's an interesting anamoly in the NEC,
>which requires grounding electrode resistance to be < 25 ohm at the service
>entrance ground. If that cannot be accomplished, then a second ground
>electrode must be used. But there is no requirement to test the results
>after the second grounding electrode is added! It could easily be 400 ohms
>after two rods sunk in terrible soil, and yet it meets the code. There are
>few such glaring examples of short sightedness in the NEC, but engineers and
>contractors both have to be aware of these problems to design and build safe
>lightning protection systems.
>
>According to both NEC and NFPA, the first grounding electrode coming off a
>structure may be shorter if conditions require, but then must be followed
>with a second electrode no shorter than 8' long and sunk to a depth of 10'.
>This is brand new in the 2004 edition btw. The minimum 8' long rod sunk to
>depth of 10' remains the code *minimum* in all other standards and
>applications where grounding electrodes are required. Distance between
>electrodes should be not less than sum of both their lengths. O.K. there is
>another little anamoly, since this does not take into account having to
>reach down 100' to find low resistance ground! Of course UFER grounds are

>also well accepted and commonly specified. This relates to another FAVORITE
>wives tale of hams, that is that tower foundations will explode if the
>grounding system goes into its concrete. There is not one documented case of
>this happening, yet the fable continues. It's true masonry and lightning do
>not get along well at all, but bonded conductors inside concrete foundations
>make it an excellent grounding system. It has been used world wide for
>decades.

Unfortunately it is not just an old wives tale. Over the years I have
seen several tower bases cracked or exploded chunks out of them from
lightning strikes.

To effectively use the tower concrete as a ground is a good thing to
do. However it must never be the only ground. Ground rods also need to
be installed and connected to the tower or you will have the effects
that I have witnessed. The ones that I saw did not have any auxiliary
ground connections.

>>
>> COAX LINES
>> Only talking about the energy on the OUTER SHIELD of coax here now.
>> With buried coax lines coming from the tower they serve the same as a
>> radial tied to the tower. They will dissipate some of the energy just
>> the same as a radial will. And they do not have to be bare copper
>> shield lines to do so either.
>>
>> This was where I was going with the buried insulated single wire long
>> wire lead.
>
>We do now agree with where you were going. But I hope I can show you it's
>not a place you want to hold any faith in protecting equipment with.
>
>> By the time the energy on the shield of the cable reaches the shack,
>> part of it has dissipated by the coupling to earth. Also the impedance
>> seen at that end is much higher than it is at the tower end of the
>> coax.
>> Just like the radial. The ground is a choke if you will.
>> Add ferite beads on a transmission line and you greatly limit the
>> amount of RF current that gets past on the shield. That is what the
>> earth does to the coax line buried.
>
>I understand what you are saying, thanks. Lets leave the ferrites alone
>though, because they can't shunt energy into dirt that doesn't have them,
>and if this was effective for lightning protection we would all use
>ferrite-shielded coax, right?
>
>Back to the coax shield now - are you aware what is the most voltage that
>standard coax can carry? It's about 5,500v. At close to 4,500v coax
>dielectric breaks down and inner and outer conductors become "one". Close to
>5,500v, the outer insulator of coax fails (similar to house wiring at
>6,000v). Above breakdown voltage there will be flashovers to any object of

>lower potential, including the air in some cases. At anything less than
>breakdown voltage, you could hold the coax in a gloved hand and not feel
>anything. And neither would the earth, if that's where it was laying.
>
>Let's review: It does not matter one bit whether you bleed off some RF
>energy out of a coax underground, because up to 5,500v of DC energy is going
>to get through with absolutely no affect from being near the dirt. And at
>over 6,000v nothing is going anywhere through that coax any more, it has
>reached breakdown and arcs over, melting and expelling the remains of its
>conductive materials all over the place. I have several such samples in my
>collection btw.
>
>Finally, this will conclude my points about not burying coax for lightning
>protection:
>Unless coax feedlines are protected by shield grounding and lightning surge
>protection devices in the proper manner and locations, there is no hope for
>its survival in even a nearby strike, let alone a direct attachment. If they
>are properly protected, it does not improve this protection to bury them.
>Perhaps it would increase the longevity of some surge protection devices and
>arrestors by limiting some RF energy they would otherwise be presented with.
>You would have to ask them that question. I have never seen a manufacturer
>of these devices require feedlines be buried, maybe they are missing this
>too. They do however require the devices we have talked about.

Well now, what if the DC component of the strike is only 5495 volts?
Still useless to remove most of the RF component of the strike? The RF
part does contain significant energy you know. After all isn't the
whole idea here to keep as much energy out of the shack as possible?
The DC part of the strike is usually easier to suppress with a ground
connection. The AC part is dependent on the inductance of the
conductor to get it to ground. Why not use all available means at
hand.

Jack, without trying to sound sarcastic I would recommend that you do
some reading about transmission line theory . Also some basics on
inductance and capacitance and how energy is transferred in their
fields. Outside of what the lightning protection people publish. These
may help you in your quest to become a lightning guru. It is fine to
read all the specifications of the NEC and other agencies that write
specs. But you need to remember that they are using one glove size to
try and fit all. If you understand a little more about how things work
you can come up with your own fixes to fit the situation much better.
You obviously have an appetite for this stuff. Spend a little time on
the theory side.
You have to be able to adapt to and use the surroundings available to
best advantage. The perfect system can not always be built.

Well I think I have had my run on this thread.

Best Holidays
Gary K4FMX

>
>It's of course fine if you want to hide coax, possibly reducing some
>external RF affects *and* the manufacturer says it is designed for below
>frost-line burying. Mine are buried too.
>
>73 AND HAPPY THANKSGIVING
>
>Jack Painter
>Virginia Beach VA
>
>

# 2679. Re: Corrosive protection for ground radial plate?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-25 08:27:43 UTC
From: Roger <Delete-Invallid.stuff.groups@tm.net>
Message-ID: <hl5bq01jfa57m9ub8p791h8kmmkh2f39a3@4ax.com>
Source record: 86176

On Mon, 22 Nov 2004 22:59:20 GMT, Bob McConnell
<rmcconne@NOSPAM.lightlink.com> wrote:

>On Sun, 21 Nov 2004 23:43:39 +0000, "Ian White, G3SEK"
><G3SEK@ifwtech.co.uk> wrote:
>
>>Jim Keller wrote:
>>>
>>>Question is, what have others done to prevent antenna connections, such
>>>as ground radials from corrosion at their points of contact?
>>>
>>With copper wires soldered to a copper pipe busbar, I used several coats
>>of clear polyurethane spray lacquer. Five years later, it looks like
>>new.
>>
>>Anything that will keep the water out of the joint between the two
>>different metals will do fine. The advantage of clear lacquer is that
>>you can see what condition it's in without disturbing anything.
>>
>>
>>>I live about 5 miles from the Ocean and the vertical is located on a
>>>slope that gets watered at least once a week.
>>>
>>I live in England. The whole country gets watered, several times a week.

I live in Michigan. We get watered every day for a month and then
nothing for a month.
<:-))
>
>Hi Jim,
>
>The major corrosion problems occur when you mate dissimilar metals.
>Copper to aluminum is probably the worst in my experience. Here in the
>states, we mixed copper and aluminum wiring in houses for a while in
>the 60's and 70's, before AL wire was completely outlawed. There were

Completely outlawed? It's tripple ought AL right into my breaker box
and that was installed last year. OTOH I've never seen outlet wiring
made of AL.

<snip>

Roger Halstead (K8RI & ARRL life member)
(N833R, S# CD-2 Worlds oldest Debonair)
www.rogerhalstead.com

# 2680. Re: I passed

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-25 12:52:32 UTC
From: Bert Craig <wa2si@optonline.netNOSPAM>
Message-ID: <6Ekpd.453$7U2.199@fe09.lga>
Source record: 86177

Way to go, Russ. Sure hope to work you someday. Congratulations and a very
Happy Thanksgiving to you and yours.

--
Vy 73 de Bert
WA2SI
FISTS #9384
QRP ARCI #11782
"Shadow_998" <hrd998cc@yahoo.nospam.com> wrote in message
news:GQfnd.46278$QJ3.16653@newssvr21.news.prodigy.com...
>I just wanted to say to this group: I am now KG6TDX/AG
>
> I posted this to the antenna group because this is where I have posted
> most
> of my amateur radio questions over the past year (and have gotten the best
> answers as well!)
>
> I hope to catch some of you on HF soon.
>
> 73, Russ
>
>

# 2681. need parts Wilson Rotor WR-500

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-25 14:05:34 UTC
From: kc1at@yahoo.com
Message-ID: <b4aaa35f.0411250605.2e9dd945@posting.google.com>
Source record: 86178

I got an old Wilson rotor with the position pot gone. Lightning hit...
Its a 500 ohm almost 360 degree sweep pot...wirewound about an 1 1/4
in diameter...anybody got an idea where i can get something that can
work...i can cob it in if its close

thanks

Don KC1AT

# 2682. Re: Hex Beam

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-25 15:39:32 UTC
From: t_ashland@yahoo.com
Message-ID: <6e6aeba9.0411250739.6d3b28a2@posting.google.com>
Source record: 86179

I don't think there is one in EU. I do believe with a little
patience, a person could build one for a fraction of the cost. There
are some great links, files, pics, and a bunch of great guys on
Yahoo's Hexbeam group. There is an Excel spreadsheet that gives you
the dimensions for each band. In addition, there is a great website
by an EI who built one. I think his call is EI7BA and the article is
Hexbeam in 3 hours.
I own a commercially made hexbeam because I got a good price on it. I
would definitely consider building one. Don't expect miracles with
it, just good solid performance in a small package.
GL es 73,
Terry, WK0F
"John" <my-callsign@qsl.net> wrote in message
news:<368pd.187$zY5.168@newsfe5-gui.ntli.net>...
> Please can any one advise me of a european dealer for the Traffie HexBeam?
>
> Thanks
>
> John
>
> g4irn

# 2683. Re: Cobra UltraLite Multi-band Antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-25 15:46:40 UTC
From: Frank <ve6cb@NOSPAM.telus.net>
Message-ID: <A7npd.2292$VL6.1972@clgrps13>
Source record: 86180

I guess we scared him away Richard.

73,

Frank

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:0058q059i1hadvk1517h28u95fj3d8nqqj@4ax.com...
> On Wed, 24 Nov 2004 03:49:20 GMT, "Frank" <ve6cb@NOSPAM.telus.net>
> wrote:
>>If the NEC models are correct there does not seem to be a lot of
>>difference
>>between the "Cobra" and a 140 ft dipole.
>
> Hi Frank,
>
> So it would seem.
>
> Hi Bert,
>
> You asked for comments, but you've been quite silent yourself. Would
> you think that the extra wire was worth the $90? Would you think you
> could trust testimonials, especially those claiming 2 S-Units gain
> over a G5RV?
>
> 73's
> Richard Clark, KB7QHC

# 2684. Re: Cobra UltraLite Multi-band Antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-25 16:45:11 UTC
From: Craig Buck <k4ia@cox.net>
Message-ID: <z_npd.4372$SA.1523@lakeread02>
Source record: 86181

Look at it closely. It is three wires (Radio Shack rotor wire) joined at opposite ends to make one long wire. The 70 foot model actually has a "run" of 210 feet - 105 feet on each side. Funny, Radio Shack rotor wire comes in 70 foot rolls.

Attach ladder line to a middle insulator. Add up the cost and you'll save a lot by doing it yourself. I have seen a Cobra and it looks very well made but I have never used one.

The principal is called linear loading, and it is a very effective way of getting maximum benefit out of short antennas. It is far more efficient than coils. ON4UN's book talks a lot about it but I couldn't find much discussion on the effect of having the wires so close together. He does advise, on page 8-13 of the Third Edition, "make sure the separation between the element and the folded linear-loading device is large enough, and that you use high-quality insulators to prevent arc-over and insulator damage." He doesn't define "enough" and the phrasing of the sentence makes it sound like the only concern with having them too close is arc-over. On the same page, he warns modeling is "very tricky." From the discussion that follows on this thread, I would say that is an understatement.
--
Radio K4ia
Craig "Buck"
Fredericksburg, VA USA
FISTS 6702 cc 788 Diamond 64

"Bert Craig" <wa2si@optonline.netNOSPAM> wrote in message
news:TE2od.29379$hc5.17952404@news4.srv.hcvlny.cv.net...
> Opinions please. :-)
>
> http://www.k1jek.com/
>
> It got pretty rave reviews on eHam.
>
> http://www.eham.net/reviews/detail/3798?ehamsid=fed2189f1d2aed5d839a7885c56da2cc
>
> --
> Vy 73 de Bert
> WA2SI
> FISTS #9384
> QRP ARCI #11782
>

# 2685. Re: Zo and Ro

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-25 16:53:22 UTC
From: Cecil.A.Moore@ieee.org
Message-ID: <9001ac09.0411250853.aedb932@posting.google.com>
Source record: 86182

radio913@aol.com (Dr. Slick) wrote in message
news:<1d15af91.0411241058.136ad661@posting.google.com>...
> Cecil Moore <w5dxp@hotmail.com> wrote in message news:<41a413e4$1_4@127.0.0.1>...
> > Dr. Slick wrote:
> > > When was the last time you used
> > > "G = C * R / L" for anything?
> >
> > Yesterday.
>
> Oh really? Please explain
> in detail?

Where have you been? We have been *USING* "G = C * R / L" for
discussion in this thread for days now. Maybe you didn't ask
the question that you thought you had asked?
--
73, Cecil, W5DXP

# 2686. Re: Kenwood 850 w/power supply

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-25 17:05:28 UTC
From: CW <cmagers@earthlink.net>
Message-ID: <L9GdnXTn6oUsjTvcRVn-ow@comcast.com>
Source record: 86183

$13.00?

"#6 Fan" <ve3tmt@yahoo.ca> wrote in message
news:tccpd.53132$Le1.1088153@news20.bellglobal.com...
>
> <Norm> wrote in message news:41a54d85.1177072@news.state.ak.us...
> > $12
>
> You've obviously never owned an 850
>
>

# 2687. Re: Cobra UltraLite Multi-band Antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-25 17:40:13 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <bp5cq055f2oa7jrnhqrgc0ipi804hiboi9@4ax.com>
Source record: 86184

On Thu, 25 Nov 2004 15:46:40 GMT, "Frank" <ve6cb@NOSPAM.telus.net>
wrote:
>I guess we scared him away Richard.

Hi Frank,

Well on to other speculations....

Sometime later this morning, I will release a study in transmission lines that your discussion aided me with. It won't be so much about the lines themselves, but about a compendium of topics revolving around the Zc of the source, and what is called Mismatch Uncertainty.

I've done the grunt work, it just needs some introduction. However, as is typical with this topic, the thread will no doubt run to half a dozen comments, if that much. :-)

73's
Richard Clark, KB7QHC

# 2688. Re: Zo and Ro

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-25 18:39:58 UTC
From: radio913@aol.com
Message-ID: <1d15af91.0411251039.2aa7f763@posting.google.com>
Source record: 86185

Cecil Moore <w5dxp@hotmail.com> wrote in message news:<41a413e4$1_4@127.0.0.1>...
> Dr. Slick wrote:
> > When was the last time you used
> > "G = C * R / L" for anything?
>
> Yesterday.

Ok, kids, can you say:

"BULLSHIT"?

Slick

# 2689. Re: Cobra UltraLite Multi-band Antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-25 19:46:30 UTC
From: Frank <ve6cb@NOSPAM.telus.net>
Message-ID: <qEqpd.3092$VL6.2271@clgrps13>
Source record: 86186

Glad something I did helped Richard. Will look forward to your posting. I enjoy reading these huge threads, though don't always feel I can contribute much.

73,

Frank

"Richard Clark" <kb7qhc@comcast.net> wrote in message news:bp5cq055f2oa7jrnhqrgc0ipi804hiboi9@4ax.com...
> On Thu, 25 Nov 2004 15:46:40 GMT, "Frank" <ve6cb@NOSPAM.telus.net>
> wrote:
>>I guess we scared him away Richard.
>
> Hi Frank,
>
> Well on to other speculations....
>
> Sometime later this morning, I will release a study in transmission
> lines that your discussion aided me with. It won't be so much about
> the lines themselves, but about a compendium of topics revolving
> around the Zc of the source, and what is called Mismatch Uncertainty.
>
> I've done the grunt work, it just needs some introduction. However,
> as is typical with this topic, the thread will no doubt run to half a
> dozen comments, if that much. :-)
>
> 73's
> Richard Clark, KB7QHC

# 2690. Re: Hex Beam

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-25 19:56:02 UTC
From: bbnn <jl@fnn.gfd>
Message-ID: <co5di10jvr@enews3.newsguy.com>
Source record: 86188

Terry Ashland wrote:

>I don't think there is one in EU. I do believe with a little
>patience, a person could build one for a fraction of the cost. There
>are some great links, files, pics, and a bunch of great guys on
>Yahoo's Hexbeam group. There is an Excel spreadsheet that gives you
>the dimensions for each band. In addition, there is a great website
>by an EI who built one. I think his call is EI7BA and the article is
>Hexbeam in 3 hours.
>I own a commercially made hexbeam because I got a good price on it. I
>would definitely consider building one. Don't expect miracles with
>it, just good solid performance in a small package.
>GL es 73,
>Terry, WK0F
>"John" <my-callsign@qsl.net> wrote in message
news:<368pd.187$zY5.168@newsfe5-gui.ntli.net>...
>
>
>>Please can any one advise me of a european dealer for the Traffie HexBeam?
>>
>>Thanks
>>
>>John
>>
>>g4irn
>>
>>
Could you elaborate on what you mean, "Don't expect miracles with it"?

# 2691. Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-25 20:20:32 UTC
From: w9dmk@crosslink.net
Message-ID: <41a63e4a.6187176@news.crosslink.net>
Source record: 86187

Various authors provide curves or formula for computing the "total loss" in transmission lines, as opposed to the "matched-line" loss. Specifically, The ARRL Antenna Book gives an equation in Chapter 24 that seems to give results consistent with other sources (See the details at the end of this posting). However, there seems to be a fundamental flaw in the way in which the equation is applied.

In essence, the equation provides a loss factor which is a function of the matched-loss attenuation and the absolute reflection coefficient. The matched-loss attenuation is the value normally expressed in dB per 100 ft. and shown in tables or shown in logarithmic plots as a function of frequency. The reflection coefficient is introduced into the expression in order to increase the total losses as the SWR on the line increases.

After calculating a total loss factor it is applied to lines of any length based on the reflection coefficient at the load. In my opinion, it makes no sense whatsoever to provide an expression that is to determine the losses per unit length on a line and have it based on the reflection coefficient at the end of the line. If there is a mismatched load, and if the line has losses, then it follows that the SWR will become lower and lower the further we are from the termination. That being the case, would it not make more sense to say that the "additional" losses would be much higher at the load end of the line, where the SWR is high, than at great distance from the load, where the SWR is significantly lower? In fact, if the line is long enough, we know that the SWR approaches 1:1, and in a line with an SWR of 1:1 there should be no additional losses above the matched-line losses.

Nonetheless, with that non-sensical approach, the numerical examples shown at the referenced page and also in a later article on the subject of Highly Reactive Loads makes it quite clear that the loss factor is applied uniformly to the entire length of line.

If we take the expression for the total loss and apply it to small increments of line wherein the SWR is relatively constant, then it not only makes more sense, but it also predicts noticeably less total loss in longer lines.

I have embarked on careful measurements of lines severely mismatched (quarter wave open circuit stubs), and I can find no correlation between my measurements and the values predicted by the "total loss" equation. My measurements always show very low losses in comparison to the model.

I would be interested in corresponding with anyone who has other models for line losses, or anyone who has made measurements on quarter-wave stubs.

##########Equation and data taken directly from The ARRL Antenna Book, 17th Ed., page 24-9 ##################
(Eq 10) Total Loss (dB) = 10 log [ {(Alpha * Alpha - (AbsRho * AbsRho)} / {Alpha * (1- (AbsRho * AbsRho)) } ]

where

Alpha = 10^(ML/10) = matched-line loss ratio

AbsRho = (SWR - 1) / (SWR + 1)

where
ML = the matched-line loss for particular length of line, in dB

SWR = SWR at load end of line

The text then goes on with a numeric example using a 150 ft. length of RG-213 coax that is terminated in a 4:1 mismatch (SWR = 4:1, AbsRho = 0.6) at 14.2 MHz. The calculations for total line loss, per the above equation, results in a total line loss of 2.107 dB.

Bob, W9DMK, Dahlgren, VA
http://www.qsl.net/w9dmk

# 2692. Mismatch Uncertainty and an EZNEC transmission line sudy

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-25 21:00:23 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <hjfcq0pu47kcso3o296c2v1uje1h0bogis@4ax.com>
Source record: 86189

Hi All,

This topic is for the rare spirit interested in the finer points in discussions revolving around Source Impedance, and by implication, Source Impedance and the Thevenin/Norton equivalency. Please note that some may through reflex attempt to equate this with issues of matching efficiency, or maximum power, or conjugation. I will leave such side topics to others, and simply point out that those branches fall sway to the illusion of their accurately determining power, where no such accuracy exists. That is, they have fallen prey to the problem of Mismatch Uncertainty without having resolved it first.

In the spirit of so many other examples offered, I have struck upon a means to illustrate the problem of "Mismatch Uncertainty" for those loath to confirm this at the bench (such as my work offered in the past along with numerous references and examples).

That means was arrived at through discussions with Frank, ve6cb. That is, his details of design for a well behaved twin lead transmission line. That transmission line will be used as an EZNEC model to demonstrate the Mismatch Uncertainty through deliberate mismatches applied. I will add an artifice of an SWR meter in the form of a very Hi-Z load that is placed along the line to "measure" power (much in the way a Ham would take the difference of forward and reverse power readings to arrive at a total power applied to the load).

The Mismatches I will apply will be first at one end, and then at both ends to the tune of at "least" 10:1. From the classical math we can expect a range of power readings that are NOT true representations of the power absorbed by the load:

Reference
"Microwave Mismatch Error Analysis," HP Appl. Note 56, page 8
to find a simple expression of the range of error:
1 / (1 ï¿½ Gamma1 ï¿½ Gamma2)ï¿½
1 / (1 ï¿½ 0.8182 ï¿½ 0.8182)ï¿½
which reduces further to
1 / (1 + 0.6694)ï¿½
0.3588
and
1 / (1 - 0.6694)ï¿½
9.151
resulting in
-74% to +915% error in power determination WITHIN the line.

I will add a proviso in that the Source represented by EZNEC, and presumably by extension NEC, has no characteristic Zc; or rather I am not aware of its value. Needless to say, the numbers that will be published following this post will reveal that the SWR is in fact much higher....

Or I made a mistake. ;-)

I will no doubt garner responses that leap to my admission so I crossed that chasm for you.

Data will follow as my response to this post.

73's
Richard Clark, KB7QHC

# 2693. Re: Mismatch Uncertainty and an EZNEC transmission line sudy

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-25 21:05:03 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <b0icq0lhp9iscrnpebc4opq04jli528s5r@4ax.com>
Source record: 86190

On Thu, 25 Nov 2004 21:00:23 GMT, Richard Clark <kb7qhc@comcast.net>
wrote:
>Reference
> "Microwave Mismatch Error Analysis," HP Appl. Note 56, page 8
>to find a simple expression of the range of error:
> 1 / (1 ï¿½ Gamma1 ï¿½ Gamma2)ï¿½
> 1 / (1 ï¿½ 0.8182 ï¿½ 0.8182)ï¿½
>which reduces further to
> 1 / (1 + 0.6694)ï¿½
> 0.3588
>and
> 1 / (1 - 0.6694)ï¿½
> 9.151
>resulting in
> -74% to +915% error in power determination WITHIN the line.

Reference Conditions:
24.5 MHz Constant 100V Source
10 meter Twin lead wire of 575 Ohms Zc terminated in 575 Ohms
Test Load of 57500 Ohms placed at successive taps (each
at 1/20th total line length intervals):
Total applied power Test Power
1 17.62 watts 0.2269 watts
2 17.55 0.2259
3 17.45 0.2246
4 17.34 0.2233
5 17.26 0.2224
6 17.23 0.2222
7 17.25 0.2227
8 17.33 0.2237
9 17.43 0.2251
10 17.54 0.2263

Load Mismatch to Line Conditions:
24.5 MHz Constant 214.5V Source
10 meter Twin lead wire of 575 Ohms Zc terminated in 57.5 Ohms
Test Load of 57500 Ohms placed at successive taps (each
at 1/20th total line length intervals):
Total applied power Test Power
1 17.6 watts 1.603 watts
2 17.96 1.993
3 18.06 2.108
4 17.89 1.916
5 17.48 1.472
6 16.97 0.909

7 16.5 0.3922
8 16.21 0.07475
9 16.19 0.04781
10 16.43 0.3203

Source/Load Mismatch #1 Conditions:
24.5 MHz Constant 100V Source
10 meter Twin lead wire of 575 Ohms Zc terminated in 57.5 Ohms
Additional 57.5 Ohm load applied across input of Twin lead wire
Test Load of 57500 Ohms placed at successive taps (each
at 1/20th total line length intervals):
Total applied power Test Power
1 177.2 watts 0.2575 watts
2 177.2 0.32
3 177.2 0.3385
4 177.2 0.3076
5 177.1 0.2363
6 177.1 0.1459
7 176.9 0.06298
8 176.9 0.01201
9 176.9 0.007672
10 177 0.05147

Source/Load Mismatch #2 Conditions:
24.5 MHz Constant 17.6W Source
10 meter Twin lead wire of 575 Ohms Zc terminated in 57.5 Ohms
Additional 57.5 Ohm load applied in series with source
Test Load of 57500 Ohms placed at successive taps (each
at 1/20th total line length intervals):
Total applied power Test Power
1 17.6 watts 1.055 watts
2 17.6 1.294
3 17.6 1.364
4 17.6 1.249
5 17.6 0.9753
6 17.6 0.6148
7 17.6 0.2703
8 17.6 0.05211
9 17.6 0.03334
10 17.6 0.221

# 2694. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-25 21:11:13 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <pbicq0dh8v3a3d965mvctn07po2v2lftf9@4ax.com>
Source record: 86191

On Thu, 25 Nov 2004 20:20:32 GMT, w9dmk@crosslink.net (Robert Lay
W9DMK) wrote:

>I have embarked on careful measurements of lines severely mismatched
>(quarter wave open circuit stubs), and I can find no correlation
>between my measurements and the values predicted by the "total loss"
>equation. My measurements always show very low losses in comparison to
>the model.

Hi Bob,

Looks like our two recent postings about roughly the same topic passed
like ships in the night.

How about the numbers (your data) that leads to your suspicions?

73's
Richard Clark, KB7QHC

# 2695. Re: Mismatch Uncertainty and an EZNEC transmission line sudy

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-25 22:47:40 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10qco8eesa5oje8@corp.supernews.com>
Source record: 86192

Richard Clark wrote:
> . . .
> I will add a proviso in that the Source represented by EZNEC, and
> presumably by extension NEC, has no characteristic Zc; or rather I am
> not aware of its value. . .

I'm not sure what Zc is, but NEC sources have a definite, well-defined internal impedance: Zero. EZNEC gives you the choice of voltage sources, which are the same as NEC sources, with an impedance of zero; and current sources, which have an impedance of about 10^15 ohms -- infinite, for practical purposes.

Roy Lewallen, W7EL

# 2696. Re: Cobra UltraLite Multi-band Antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-25 23:08:05 UTC
From: ON5MJ <my_call_sign@skynet.be>
Message-ID: <41a664db$0$5340$ba620e4c@news.skynet.be>
Source record: 86193

Hi Craig,

Her are the e-mail addresses and phone number of John:

++ 32 9 362 64 55

on4un@uba.be or john.devoldere@pandora.be

73 de ON5MJ - Jacques.

# 2697. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-25 23:16:21 UTC
From: w9dmk@crosslink.net
Message-ID: <41a66653.16436654@news.crosslink.net>
Source record: 86194

On Thu, 25 Nov 2004 21:11:13 GMT, Richard Clark <kb7qhc@comcast.net>
wrote:

>On Thu, 25 Nov 2004 20:20:32 GMT, w9dmk@crosslink.net (Robert Lay
>W9DMK) wrote:
>
>>I have embarked on careful measurements of lines severely mismatched
>>(quarter wave open circuit stubs), and I can find no correlation
>>between my measurements and the values predicted by the "total loss"
>>equation. My measurements always show very low losses in comparison to
>>the model.
>
>Hi Bob,
>
>Looks like our two recent postings about roughly the same topic passed
>like ships in the night.
>
>How about the numbers (your data) that leads to your suspicions?
>
>73's
>Richard Clark, KB7QHC

The only one that falls immediately to hand is probably a decent
representative example. It is a piece of RG-8/U, also known by its
maker, Columbia, as 9913.

It is 5.334 meters long and is approximately 1/4 wave at 10.6 MHz,
which is where I made the measurement. In its open circuit
configuration, it measures 0.57 + j 0.3 ohms.

I am still struggling with some issues of how to interpret those
results, but two things seem to be clear - 1) the reactive component
is because I was about a degree too long for the frequency of
measurement, or there is enough stray capacitance at the open circuit
to transform into a bit of inductive reactance, and 2) the very low
resistive component doesn't seem to fit any math models that I'm
working with.

What do you think?

Bob, W9DMK, Dahlgren, VA
http://www.qsl.net/w9dmk

# 2698. FS: sma-to-bnc custom fit rubber covered antenna adapter

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-26 00:22:40 UTC
From: gulyas@earthlink.net
Message-ID: <12235960.0411251622.2fb9c0f3@posting.google.com>
Source record: 86195
Cross-posted to: rec.radio.swap,rec.radio.scanner,rec.radio.amateur.equipment,rec.radio.amateur.antenna

Do you have a need for a high-quality SMA-to-BNC rubber covered
factory look antenna adapter that is custom made to fit and protect
your H.T. or scanner radio?

Adapter allows you to:
Quickly change antennas to base, mobile or different style use.
Use the more popular and wider selection available of BNC antennas.
Prevent chassis connector wear or from coming loose due to antenna
changes.

Adapter features:
Gold plated contacts with a teflon insulator.
A low profile design with a rubber covering for a factory antenna
look.
The rubber base seals to the top of the radio with no spacers needed
for moisture and dirt protection.
The base also provides an excellent support for any length of antenna
or application.
No need to remove adapter once installed to make a quick and safe
BNC style antenna change.

Sizes to fit radio models:
Yaesu: VX-5R, VX-7R, VX-2R, VX-1R, FT-50-R, FT-60-R, VX-10, VX-150,
VX-110, VXA-100, VXA-120, VX-800, VXA-700
Icom: IC-T90A, IC-R5, IC-R2, IC-T8A, IC-T81A, IC-Q7A, IC-M1V
Kenwood: TH-D7, TH-G71, TH-F6A, TH-59, TH-K2AT
Alinco: DJ-V5, DJ-X3, DJ-S40
Midland : G-11
Maycom : AR108
Standard: C508A, C510, HX-460S
Uniden : Atlantis(marine)
Tate Orca : Excel
Radio Shack: HTX-200, HTX-400, HTX-245, HTX-420

Previewed in the May 2000 Issue of CQ Magazine, and the Nov. 2000
Issue of QST Magazine.

$11.95 ea. + $1.50 S+H(One to unlimited)
(Check or money order only in U.S.Funds)
(Specify-radio-model)

STEPHEN G.GULYAS
706 LALOR ST.
TRENTON, N.J. 08610
U.S.A.

A photo of the adapter is available upon request.

I welcome any questions or comments at my email:
gulyas@earthlink.net

Thanks for looking at my posting.
S.G.G. KC2BHO 73's

# 2699. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-26 00:24:13 UTC
From: Dave <noone@nowhere.com>
Message-ID: <Nf-dnXhENqhP6jvcRVn-2A@crocker.com>
Source record: 86196

"Robert Lay W9DMK" <w9dmk@crosslink.net> wrote in message
news:41a66653.16436654@news.crosslink.net...
> On Thu, 25 Nov 2004 21:11:13 GMT, Richard Clark <kb7qhc@comcast.net>
> wrote:
>
> >On Thu, 25 Nov 2004 20:20:32 GMT, w9dmk@crosslink.net (Robert Lay
> >W9DMK) wrote:
> >
> >>I have embarked on careful measurements of lines severely mismatched
> >>(quarter wave open circuit stubs), and I can find no correlation
> >>between my measurements and the values predicted by the "total loss"
> >>equation. My measurements always show very low losses in comparison to
> >>the model.
> >
> >Hi Bob,
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> >Looks like our two recent postings about roughly the same topic passed
> >like ships in the night.
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> >How about the numbers (your data) that leads to your suspicions?
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> >73's
> >Richard Clark, KB7QHC
>
> The only one that falls immediately to hand is probably a decent
> representative example. It is a piece of RG-8/U, also known by its
> maker, Columbia, as 9913.
>
> It is 5.334 meters long and is approximately 1/4 wave at 10.6 MHz,
> which is where I made the measurement. In its open circuit
> configuration, it measures 0.57 + j 0.3 ohms.
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> I am still struggling with some issues of how to interpret those
> results, but two things seem to be clear - 1) the reactive component
> is because I was about a degree too long for the frequency of
> measurement, or there is enough stray capacitance at the open circuit
> to transform into a bit of inductive reactance, and 2) the very low
> resistive component doesn't seem to fit any math models that I'm
> working with.
>
> What do you think?
>
> Bob, W9DMK, Dahlgren, VA
> http://www.qsl.net/w9dmk

the 1/4 wave open end coax looks like a short circuit at the feed point. so your reading makes perfect sense.

# 2700. Re: Hex Beam

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-26 03:01:26 UTC
From: t_ashland@yahoo.com
Message-ID: <6e6aeba9.0411251901.3a21eee5@posting.google.com>
Source record: 86197

It's been covered here, but to summarize, it is a 2 element full sized
element wire beam.
bbnn <jl@fnn.gfd> wrote in message news:<co5di10jvr@enews3.newsguy.com>...
> Terry Ashland wrote:
>
> >I don't think there is one in EU. I do believe with a little
> >patience, a person could build one for a fraction of the cost. There
> >are some great links, files, pics, and a bunch of great guys on
> >Yahoo's Hexbeam group. There is an Excel spreadsheet that gives you
> >the dimensions for each band. In addition, there is a great website
> >by an EI who built one. I think his call is EI7BA and the article is
> >Hexbeam in 3 hours.
> >I own a commercially made hexbeam because I got a good price on it. I
> >would definitely consider building one. Don't expect miracles with
> >it, just good solid performance in a small package.
> >GL es 73,
> >Terry, WK0F
> >"John" <my-callsign@qsl.net> wrote in message
news:<368pd.187$zY5.168@newsfe5-gui.ntli.net>...
> >
> >
> >>Please can any one advise me of a european dealer for the Traffie HexBeam?
> >>
> >>Thanks
> >>
> >>John
> >>
> >>g4irn
> >>
> >>
> Could you elaborate on what you mean, "Don't expect miracles with it"?

# 2701. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-26 03:51:16 UTC
From: Wes Stewart <n7ws_@_yahoo.com>
Message-ID: <k09dq0d7jrnbo81bpsd0r526d8ovfupmo1@4ax.com>
Source record: 86198

On Thu, 25 Nov 2004 20:20:32 GMT, w9dmk@crosslink.net (Robert Lay
W9DMK) wrote:

Bob,

You might want to look at this paper:

http://users.triconet.org/wesandlinda/AIEE_High_Swr.pdf

|Various authors provide curves or formula for computing the "total
|loss" in transmission lines, as opposed to the "matched-line" loss.
|Specifically, The ARRL Antenna Book gives an equation in Chapter 24
|that seems to give results consistent with other sources (See the
|details at the end of this posting). However, there seems to be a
|fundamental flaw in the way in which the equation is applied.
|
|In essence, the equation provides a loss factor which is a function of
|the matched-loss attenuation and the absolute reflection coefficient.
|The matched-loss attenuation is the value normally expressed in dB per
|100 ft. and shown in tables or shown in logarithmic plots as a
|function of frequency. The reflection coefficient is introduced into
|the expression in order to increase the total losses as the SWR on the
|line increases.
|
|After calculating a total loss factor it is applied to lines of any
|length based on the reflection coefficient at the load. In my opinion,
|it makes no sense whatsoever to provide an expression that is to
|determine the losses per unit length on a line and have it based on
|the reflection coefficient at the end of the line. If there is a
|mismatched load, and if the line has losses, then it follows that the
|SWR will become lower and lower the further we are from the
|termination. That being the case, would it not make more sense to say
|that the "additional" losses would be much higher at the load end of
|the line, where the SWR is high, than at great distance from the load,
|where the SWR is significantly lower? In fact, if the line is long
|enough, we know that the SWR approaches 1:1, and in a line with an SWR
|of 1:1 there should be no additional losses above the matched-line
|losses.
|
|Nonetheless, with that non-sensical approach, the numerical examples
|shown at the referenced page and also in a later article on the
|subject of Highly Reactive Loads makes it quite clear that the loss
|factor is applied uniformly to the entire length of line.
|
|If we take the expression for the total loss and apply it to small

|increments of line wherein the SWR is relatively constant, then it not
|only makes more sense, but it also predicts noticeably less total loss
|in longer lines.
|
|I have embarked on careful measurements of lines severely mismatched
|(quarter wave open circuit stubs), and I can find no correlation
|between my measurements and the values predicted by the "total loss"
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|I would be interested in corresponding with anyone who has other
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|
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|17th Ed., page 24-9 ################
|(Eq 10) Total Loss (dB) = 10 log [ {(Alpha * Alpha - (AbsRho *
|AbsRho)} / {Alpha * (1- (AbsRho * AbsRho)) } ]
|
|where
|
| Alpha = 10^(ML/10) = matched-line loss ratio
|
| AbsRho = (SWR - 1) / (SWR + 1)
|
|where
| ML = the matched-line loss for particular length of line, in
|dB
|
| SWR = SWR at load end of line
|
|The text then goes on with a numeric example using a 150 ft. length of
|RG-213 coax that is terminated in a 4:1 mismatch (SWR = 4:1, AbsRho =
|0.6) at 14.2 MHz. The calculations for total line loss, per the above
|equation, results in a total line loss of 2.107 dB.
|
|
|
|
|Bob, W9DMK, Dahlgren, VA
|http://www.qsl.net/w9dmk

# 2702. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-26 04:19:06 UTC
From: w9dmk@crosslink.net
Message-ID: <41a6ae98.34937327@news.crosslink.net>
Source record: 86199

On Fri, 26 Nov 2004 00:24:13 -0000, "Dave" <noone@nowhere.com> wrote:

>the 1/4 wave open end coax looks like a short circuit at the feed point. so
>your reading makes perfect sense.
>
>
Dear Dave,

Yes, I believe it does - that is, it makes perfect sense to have a low resistance and to have a near zero reactive component. What does not make sense is that the high SWR is supposed to produce outrageous losses. I don't see values that I can interpret as high losses - quite the opposite. Maybe I just don't interpret it correctly, but I would expect it to be several ohms - not 0.57 ohms.

In fact, and this is where it gets ridiculous, the examples in the ARRL Antenna Book would lead me to believe that the above quarter wave line would exhibit 20 dB of total losses. In order to get those numbers the SWR at the load of say 8000 would have to decrease to 1.01:1 at the source end in order to account for 20 dB in losses. (See the example on page 24-9 of the 17th Edition.)

Bob, W9DMK, Dahlgren, VA
http://www.qsl.net/w9dmk

# 2703. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-26 04:20:28 UTC
From: w9dmk@crosslink.net
Message-ID: <41a6aee7.35015970@news.crosslink.net>
Source record: 86200

On Thu, 25 Nov 2004 23:16:21 GMT, w9dmk@crosslink.net (Robert Lay
W9DMK) wrote:
>The only one that falls immediately to hand is probably a decent
>representative example. It is a piece of RG-8/U, also known by its
>maker, Columbia, as 9913.

Don't ask me where I got that number - it's Columbia's number 1198 -
not 9913.

Bob, W9DMK, Dahlgren, VA
http://www.qsl.net/w9dmk

# 2704. Re: FS: sma-to-bnc custom fit rubber covered antenna adapter

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-26 04:24:39 UTC
From: Brian <victhedog@hotmail.com>
Message-ID: <0ubdq0hbv87iunjfnm8615eh3ao337a3h7@4ax.com>
Source record: 86201
Cross-posted to: rec.radio.swap,rec.radio.scanner,rec.radio.amateur.equipment,rec.radio.amateur.antenna

samw thing without rubber 3.75 at any electroncs store

what a rip off

On 25 Nov 2004 16:22:40 -0800, gulyas@earthlink.net (Stephen G.
Gulyas) wrote:

>Do you have a need for a high-quality SMA-to-BNC rubber covered
>factory look antenna adapter that is custom made to fit and protect
>your H.T. or scanner radio?
>
>Adapter allows you to:
>Quickly change antennas to base, mobile or different style use.
>Use the more popular and wider selection available of BNC antennas.
>Prevent chassis connector wear or from coming loose due to antenna
>changes.
>
>Adapter features:
>Gold plated contacts with a teflon insulator.
>A low profile design with a rubber covering for a factory antenna
>look.
>The rubber base seals to the top of the radio with no spacers needed
>for moisture and dirt protection.
>The base also provides an excellent support for any length of antenna
>or application.
>No need to remove adapter once installed to make a quick and safe
>BNC style antenna change.
>
>Sizes to fit radio models:
>Yaesu: VX-5R, VX-7R, VX-2R, VX-1R, FT-50-R, FT-60-R, VX-10, VX-150,
>VX-110, VXA-100, VXA-120, VX-800, VXA-700
>Icom: IC-T90A, IC-R5, IC-R2, IC-T8A, IC-T81A, IC-Q7A, IC-M1V
>Kenwood: TH-D7, TH-G71, TH-F6A, TH-59, TH-K2AT
>Alinco: DJ-V5, DJ-X3, DJ-S40
>Midland : G-11
>Maycom : AR108
>Standard: C508A, C510, HX-460S
>Uniden : Atlantis(marine)
>Tate Orca : Excel
>Radio Shack: HTX-200, HTX-400, HTX-245, HTX-420
>
>Previewed in the May 2000 Issue of CQ Magazine, and the Nov. 2000
>Issue of QST Magazine.
>

>$11.95 ea. + $1.50 S+H(One to unlimited)
>(Check or money order only in U.S.Funds)
>(Specify-radio-model)
>
>STEPHEN G.GULYAS
>706 LALOR ST.
>TRENTON, N.J. 08610
>U.S.A.
>
>A photo of the adapter is available upon request.
>
>I welcome any questions or comments at my email:
>gulyas@earthlink.net
>
>Thanks for looking at my posting.
>S.G.G. KC2BHO 73's

# 2705. RE: Constructing a Cobra UltraLite Replica - Some Questions

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-26 04:33:23 UTC
From: Dave <dave@somehere.net>
Message-ID: <pkbdq059vnhst90ep9v27oaec53t90j83p@4ax.com>
Source record: 86202

I have read with interest the comments regarding the Cobra Ultralite. It's rare to see such unanimous praise on eHam so there must be something to it that people like so I guess that I will try to make one.

On the Radio Shack site I have found Catalog #: 15-1150 (3 conductor Rotator Cable - 100 ft. - $14.49)

My question to you guys is:

What do you think the impact of substituting 300 ohm twin-lead (RS Catalog #: 15-1175 - 100ft. - $10.49) for the 450 ohm ladder line would be?

If it would work, this antenna could be built for 25 bucks. Cheap enough to try it out and also much lighter than if made with ladder line.

Also, why is it necessary to have so much ladder line (K1JEK says to use the full 100ft.)? Seems like there might be a way to tune this antenna without so much lead- in wire. At my home I could easily get away with a 50 foot lead in. I guess that I just don't like the aesthetics of having to loosely coil up 50 ft of unused ladder-line or twin-lead and have it hanging on the outside of the house.

Appreciate any comments, thanks

Dave

# 2706. Re: Constructing a Cobra UltraLite Replica - Some Questions

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-26 04:55:19 UTC
From: Bob Miller <rmiller47@satx.rr.com>
Message-ID: <j8ddq0llda4jnftbe7eqbfrj5clmtg8gdg@4ax.com>
Source record: 86203

On Thu, 25 Nov 2004 23:33:23 -0500, Dave <dave@somehere.net> wrote:

>I have read with interest the comments regarding the Cobra Ultralite.
>It's rare to see such unanimous praise on eHam so there must be
>something to it that people like so I guess that I will try to make
>one.
>
>On the Radio Shack site I have found Catalog #: 15-1150 (3 conductor
>Rotator Cable - 100 ft. - $14.49)
>
>My question to you guys is:
>
>What do you think the impact of substituting 300 ohm twin-lead (RS
>Catalog #: 15-1175 - 100ft. - $10.49) for the 450 ohm ladder line
>would be?
>
>If it would work, this antenna could be built for 25 bucks. Cheap
>enough to try it out and also much lighter than if made with ladder
>line.
>
>Also, why is it necessary to have so much ladder line (K1JEK says to
>use the full 100ft.)? Seems like there might be a way to tune this
>antenna without so much lead- in wire. At my home I could easily get
>away with a 50 foot lead in. I guess that I just don't like the
>aesthetics of having to loosely coil up 50 ft of unused ladder-line or
>twin-lead and have it hanging on the outside of the house.

You might go to the mfj web site and download the user manual for the
mfj-989c antenna tuner. Pages 7 & 8 give you certain balanced feedline
lengths to avoid, as well as several optimum lengths, and that info
would be applicable no matter what tuner you use to tune your dipole.

bob
k5qwg

>
>Appreciate any comments, thanks
>
>Dave

# 2707. Re: FS: sma-to-bnc custom fit rubber covered antenna adapter

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-26 05:00:50 UTC
From: Ed <Huckleberry_REMOVE_@bigvalley.net>
Message-ID: <Xns95ACD5CC3ACD2spectrumhogstarbandn@207.106.92.175>
Source record: 86204
Cross-posted to: rec.radio.swap,rec.radio.scanner,rec.radio.amateur.equipment,rec.radio.amateur.antenna

> samw thing without rubber 3.75 at any electroncs store
>
> what a rip off

but you know you can get in serious trouble without your rubbers . . .

Ed

# 2708. Re: Mismatch Uncertainty and an EZNEC transmission line sudy

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-26 06:34:50 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <n9jdq0ln4d5e0ajnsi25scotofff5n36v5@4ax.com>
Source record: 86205

On Thu, 25 Nov 2004 14:47:40 -0800, Roy Lewallen <w7el@eznec.com>
wrote:

>I'm not sure what Zc is, but NEC sources have a definite, well-defined
>internal impedance: Zero. EZNEC gives you the choice of voltage sources,
>which are the same as NEC sources, with an impedance of zero; and
>current sources, which have an impedance of about 10^15 ohms --
>infinite, for practical purposes.

Hi Roy,

You are too modest by half, you are sure. Such a source makes for the
explicit source of Mismatch Uncertainty.

73's
Richard Clark, KB7QHC

# 2709. Re: Constructing a Cobra UltraLite Replica - Some Questions

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-26 06:49:20 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <vijdq0hbhavn80ki3apoerkau6i47kk9qf@4ax.com>
Source record: 86206

On Thu, 25 Nov 2004 23:33:23 -0500, Dave <dave@somehere.net> wrote:
>Appreciate any comments, thanks

Hi Dave,

Bob offers a good point, inferentially through and to MFJ. However, it seems a longshot that MFJ could anticipate every unique length that would be most suitably paired against the spectrum of all available antennas that are out there.

But then, on the other hand, as Frank and I have shown: using three wires tied together in series or just one wire hardly makes any difference. As far as that goes, you stand to achieve a better match by simply running all three wires in parallel as a "fat" conductor. Don't take this advice to the bank, tho', as much advantage as there is there will be as unnoticeable as any combination of those three wires woven into a cat's cradle.

If you want to believe in testimonials, you could as easily join the cfa cult.

If you want to try ____ (fill in the blank), this is certainly the group that has at least one, two, or more who've already been there - no shame in that either, no one comes here simply to find boring talk about dipoles. I've tried to make a lot of these suckers sing. ;-)

73's
Richard Clark, KB7QHC

# 2710. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-26 07:33:04 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <ogkdq09plva72s8l9co588na92vf7lpn93@4ax.com>
Source record: 86207

On Fri, 26 Nov 2004 04:19:06 GMT, w9dmk@crosslink.net (Robert Lay W9DMK) wrote:

>What does not
>make sense is that the high SWR is supposed to produce outrageous
>losses. I don't see values that I can interpret as high losses - quite
>the opposite. Maybe I just don't interpret it correctly, but I would
>expect it to be several ohms - not 0.57 ohms.

Hi Bob,

Thanx for the explicit results. Now what is needed is the explicit expectation. I note that you circumspectly describe it as being
>ARRL Antenna Book would lead me to believe that the above quarter wave
>line would exhibit 20 dB of total losses. In order to get those
>numbers the SWR at the load of say 8000 would have to decrease to
>1.01:1 at the source end in order to account for 20 dB in losses. (See
>the example on page 24-9 of the 17th Edition.)
which is an inference which being an interpretation is open to errors of mis-interpretation.

Reference Data for Radio Engineers, "Mismatch and Transducer Loss," "One End Mismatched," pg. 22-12:
Transducer Loss = A0 + 10 ï¿½ log (Pm/P) decibels
where
A0 = normal attenuation of the line
Pm = power that would be delivered were system matched
P = power delivered to the load

Of particular note is that this is one of my references as to the nature of Source Z which is often neglected in academic treatments with the presumption that the engineer has already been schooled in the nature of Real sources (this may shock some complaisant readers here). However, this citation offers that explicit lesson in figure 10 and makes use of this commonplace characteristic in illustrations of Mismatch Uncertainty. They go as far as to explicitly offer a section entitled "Generator and Load Mismatched." You may wish to review this treatment as it offers the math that would present the most loss available in a line, above and beyond the typical charts offered for line loss (which are confined to both ends being matched).

73's
Richard Clark, KB7QHC

# 2711. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-26 12:11:57 UTC
From: Dave <noone@nowhere.com>
Message-ID: <vq6dnXjiQMwvgDrcRVn-sw@crocker.com>
Source record: 86208

"Robert Lay W9DMK" <w9dmk@crosslink.net> wrote in message
news:41a6ae98.34937327@news.crosslink.net...
> On Fri, 26 Nov 2004 00:24:13 -0000, "Dave" <noone@nowhere.com> wrote:
>
> >the 1/4 wave open end coax looks like a short circuit at the feed point.
so
> >your reading makes perfect sense.
> >
> >
> Dear Dave,
>
> Yes, I believe it does - that is, it makes perfect sense to have a low
> resistance and to have a near zero reactive component. What does not
> make sense is that the high SWR is supposed to produce outrageous
> losses. I don't see values that I can interpret as high losses - quite
> the opposite. Maybe I just don't interpret it correctly, but I would
> expect it to be several ohms - not 0.57 ohms.
>
> In fact, and this is where it gets ridiculous, the examples in the
> ARRL Antenna Book would lead me to believe that the above quarter wave
> line would exhibit 20 dB of total losses. In order to get those
> numbers the SWR at the load of say 8000 would have to decrease to
> 1.01:1 at the source end in order to account for 20 dB in losses. (See
> the example on page 24-9 of the 17th Edition.)
>

the cases they talk about in there are figuring the loss in power that you
would be supplying to a load. in your case the load is an infinite
resistance so it receives zero power which is what the arrl book says... in
this case all the power that is sent down the line is reflected back minus a
little bit of heating so the swr at the feedpoint should be near infinite,
but not quite. the actual loss in the wave going down and coming back is
very small hence the very low impedance. this is an effect that is used to
make coaxial stub filters and transformers.

# 2712. Re: HE3RSI: An antenna simulation challenge

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-26 13:28:01 UTC
From: J Laub <wd0bka@netscape.net>
Message-ID: <10qebrlp330q087@news.supernews.com>
Source record: 86209

my interest is peaked now.

C.Aymon wrote:
> During the month of november 2004, a group of swiss radio-amateurs have the
> unique opportunity to use the antenna system of Swiss Radio International in
> Sottens. The call used for this special event is HE3RSI. Pictures of the
> antennas are available here http://www.hb9mm.com/photos/Sottens2004
>
> The antenna has been build in the in the beginning of the seventies. Today,
> using powerfull computers and software, it would be very interesing to
> modelize the antenna and check if the expected and measured gains and
> patterns can be retrieved. For all of us who are interested in antennas
> simulations, I post here the structure and the dimensions of the Sottens
> antenna.
>
> The antenna system consists of two antennas of the same structure. One
> antenna (A) is for the band 9..15 Mhz and one (B) for 15..21 Mhz. Both
> antennas are ''suspended'' on both sides of a reflector, please see the
> pictures to have a better view of the situation.
>
> Here is the antenna ''A'' structure (all dimensions in meters):
>
> 1) The antenna consists of 8 full-wave dipoles, each of length 19.7m
>
> 2) The 8 dipoles are organized in two identical groups of 4.
>
> 3) One group consists of 4 stacked dipoles, in a vertical plane. The lowest
> dipole is at 22m above ground, then the second is 9.2m above the first, the
> third is 11.40m above the second and the fourth is 9.2m above the third.
>
> 4) The two identical groups of 4 dipoles are put side by side in the same
> vertical plane. The horizontal distance between the centers of the dipoles
> of each group is 21.33m.
>
> 5) All dipole are center-fed in phase via (a system of) transmission lines
> of the same length.
>
> 6) Each dipole is actually made of 3 parallel wires of 4.1mm diameter and
> 0.66m apart. The three wires of a dipole are in an horizontal plane.
>
> 7) The dipole groups are ''suspended'' in front of a reflector at a distance
> of 7.4m of the reflector.
>
> 8) The reflector consists of (abt) 120 wires, of length (abt) 46m, stretched

> between two towers of (abt) 63m heigh.
>
> 9) The whole system is rotatable and weights about 135 tons.
>
> It would be interesting to have the gain and the pattern of the antenna on
> all amateurs bands from 7Mhz to 28Mhz.
>
> I am ready to (try to) answer to any question, or provide any missing
> information.
>
> To your keyboards ;)
>
> Best 73 de HB9DBC, Chris
>
>

# 2713. Re: Constructing a Cobra UltraLite Replica - Some Questions

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-26 13:45:19 UTC
From: Frank <ve6cb@NOSPAM.telus.net>
Message-ID: <PrGpd.8663$VL6.8365@clgrps13>
Source record: 86211

"Dave" <dave@somehere.net> wrote in message
news:pkbdq059vnhst90ep9v27oaec53t90j83p@4ax.com...
>I have read with interest the comments regarding the Cobra Ultralite.
> It's rare to see such unanimous praise on eHam so there must be
> something to it that people like so I guess that I will try to make
> one.
>
> On the Radio Shack site I have found Catalog #: 15-1150 (3 conductor
> Rotator Cable - 100 ft. - $14.49)
>
> My question to you guys is:
>
> What do you think the impact of substituting 300 ohm twin-lead (RS
> Catalog #: 15-1175 - 100ft. - $10.49) for the 450 ohm ladder line
> would be?
>
> If it would work, this antenna could be built for 25 bucks. Cheap
> enough to try it out and also much lighter than if made with ladder
> line.
>
> Also, why is it necessary to have so much ladder line (K1JEK says to
> use the full 100ft.)? Seems like there might be a way to tune this
> antenna without so much lead- in wire. At my home I could easily get
> away with a 50 foot lead in. I guess that I just don't like the
> aesthetics of having to loosely coil up 50 ft of unused ladder-line or
> twin-lead and have it hanging on the outside of the house.
>
> Appreciate any comments, thanks
>
> Dave

Hi Dave:

There is not the remotest possibility that the radiation efficiency of a "Cobra" antenna is any different than a conventional dipole of the same length. The antenna, admittedly, does have different impedance characteristics. With the specified length of transmission line, it may be easier to match with a typical antenna tuner. In particular at the low frequency end, resulting in a slight, but insignificant reduction of transmission line losses. I would recommend experimenting with transmission line length to determine the best match. The losses on 300 Ohm ribbon will be higher than with 450 Ohm line.

If anybody is interested I have an Excel spread sheet comparing the input impedance of a 140 ft Cobra with a conventional 140 ft dipole. It is then a

simple matter to predict the transmission line losses.

The use of zip cord for an antenna introduces another variable which is not easy to predict. The dielectric properties of the insulation may be less than ideal, and could introduce additional losses.

I would treat testimonials by users of the antenna with extreme caution.

73,

Frank

# 2714. Re: Hex Beam

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-26 13:45:43 UTC
From: kelly@dvol.com
Message-ID: <d22b54c3.0411260545.14c28cbc@posting.google.com>
Source record: 86210

bbnn <jl@fnn.gfd> wrote in message news:<co5di10jvr@enews3.newsguy.com>...
> Terry Ashland wrote:
>
> >I don't think there is one in EU. I do believe with a little
> >patience, a person could build one for a fraction of the cost. There
> >are some great links, files, pics, and a bunch of great guys on
> >Yahoo's Hexbeam group. There is an Excel spreadsheet that gives you
> >the dimensions for each band. In addition, there is a great website
> >by an EI who built one. I think his call is EI7BA and the article is
> >Hexbeam in 3 hours.
> >I own a commercially made hexbeam because I got a good price on it. I
> >would definitely consider building one. Don't expect miracles with
> >it, just good solid performance in a small package.
> >GL es 73,
> >Terry, WK0F
> >"John" <my-callsign@qsl.net> wrote in message
news:<368pd.187$zY5.168@newsfe5-gui.ntli.net>...
> >
> >
> >>Please can any one advise me of a european dealer for the Traffie HexBeam?
> >>
> >>Thanks
> >>
> >>John
> >>
> >>g4irn
> >>
> >>
> Could you elaborate on what you mean, "Don't expect miracles with it"?

'Scuse me for butting in here but the message is that a hexbeam will
not compete particularly well in the pileups against 2-3-4 element
full size yagis so don't expect any miracles with a hexbeam in this
respect. In general a full size 2 elemment yagi will outperform a
hexbeam by a few dB here and there. Which should be intuitively
obvious. Compacting any "beam" antenna results in performance
compromises vs. full size versions. On the forward gain side of the
hex it's only a tad better than either lobe from a simple dipole at
the same height. Which is to say that if you're S9+10 on the other
guy's S-meter with a simple dipole a hex can be expected to kick his
needle to maybe S9+13 or some such no-counter. The "miracles" in
hexbeams vs. simple dipoles lies in it's meager but often quite useful
F/B ratio, it's steerability with inexpensive rotators and a few other
attributes which make it a good choice given restricted installation

conditions which preclude the use of full size 2 element yagis. Google W4RNL and dig into his website for his analyses of hexbeams and their wire beam cousins.

w3rv

# 2715. TX Distance question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-26 15:14:46 UTC
From: James <Nonethanks@NOSPAM.com>
Message-ID: <KMHpd.58953$Ro.2196328@news20.bellglobal.com>
Source record: 86212
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.misc

Hi Folks

I have limited experience (ok almost none really) with respect to Amateur Radio outside of the 2M band. However I just recently got my code ticket & installed a radio on my sailboat. I am using a TS-50 with an automatic tuner and a long copper wire to the top of the mast (probably 50 feet or so long).

My ground plane/counterpoise consists of tying the ground to a large aluminium area in the stern of the boat with a copper foil.

My very first contacts were established with 2 land stations on 14300 at 100W that were about 1000 miles away. They both reported that my signal was good and that it sounded like I was "sitting right next to them". I have no idea if this was a good distance, great, or mediocre.

I realize that propogation variables prevent anyone from giving a really clear answer to this question, but in general, what sort of distance should I expect to achieve? I'm trying to decide whether I need to improve my antenna ground by adding a dynaplate (costly and requies the boat to be taken from the water for installation) or whether the range I am getting is decent.

Can anyone comment?

Thanks

## 2716. Short anchor bolt problem

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-26 15:53:42 UTC
From: gus <fertree@yahoo.com>
Message-ID: <jkqcq0dtrrh7adqtu8gob5k67bhe2sm4mr@4ax.com>
Source record: 86213

I am about to put up a tx-455 self supporting tower. The site
currently has a concrete pad, which has been described to me as
follows: The pad is 5' X 5' and about 3 feet deep. The pad is
heavily rebarred, and pinned to 30 feet of bedrock with 3 foot
epoxeyed bolts (4 of them). The bolts are about 24 inches into the
bedrock. There are 3 anchor bolts sticking out of the pad which
perfectly match the base plate of the tower. Here's the problem. Those
bolts are 12 inches in length 9 inches in the concrete and
3 inches extending out for th tower base. If I guy the bottom
section and use a fairly light antenna (HF quad) will I be okay?

# 2717. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-26 16:12:34 UTC
From: w9dmk@crosslink.net
Message-ID: <41a74b32.6971244@news.crosslink.net>
Source record: 86214

On Thu, 25 Nov 2004 20:51:16 -0700, Wes Stewart <n7ws_@_yahoo.com>
wrote:

>On Thu, 25 Nov 2004 20:20:32 GMT, w9dmk@crosslink.net (Robert Lay
>W9DMK) wrote:
>
>Bob,
>
>You might want to look at this paper:
>
>http://users.triconet.org/wesandlinda/AIEE_High_Swr.pdf

Dear Wes,

I have downloaded the pdf file and printed it out. It's tough reading. I hope that MacAlpine agrees with what Dave and Richard are telling me, because their responses seem to be correct and are exactly what I was afraid of - that I've been sucked into another example of the strange terminology used to describe "losses".

I have always thought of "loss" as a conversion to another form of energy (typically heat energy) which is lost from the system. Apparently, the kind of "loss" being described in the example that I gave is not a loss at all. It's more like "return loss", which is also not a true "loss" in my thinking. In other words, it seems that the "Additional Losses Due to SWR" are not losses at all, but are simply a measure of the power that "could" have been delivered to the load were it not for the mis-match.
Bob, W9DMK, Dahlgren, VA
http://www.qsl.net/w9dmk

# 2718. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-26 16:38:51 UTC
From: Cecil.A.Moore@ieee.org
Message-ID: <9001ac09.0411260838.1763971c@posting.google.com>
Source record: 86215

w9dmk@crosslink.net (Robert Lay W9DMK) wrote:
> Yes, I believe it does - that is, it makes perfect sense to have a low
> resistance and to have a near zero reactive component. What does not
> make sense is that the high SWR is supposed to produce outrageous
> losses. I don't see values that I can interpret as high losses - quite
> the opposite. Maybe I just don't interpret it correctly, but I would
> expect it to be several ohms - not 0.57 ohms.

Hi Bob, I'm still at my relatives' house posting through Google. I'll
expand on this when I get back to my computer.

Those equations in The ARRL Antenna Book (15th Edition) make an assumption
that may or may not be true - I don't know. What they are assuming is that
the losses are due to the additional power associated with high SWR. In
general, if the forward power is 100w for the matched case and the sum
of the forward and reflected power is 300w for the unmatched case, the
losses will be three times higher for the unmatched case. That seems a
reasonable assumption. However, rho at the shorted or open end of a stub
is equal to |1| so rho^2 will be equal to 1. That puts (1-rho^2) = 0 in
the denominator of the equation and makes the addditional losses undefined.

> In fact, and this is where it gets ridiculous, the examples in the
> ARRL Antenna Book would lead me to believe that the above quarter wave
> line would exhibit 20 dB of total losses. In order to get those
> numbers the SWR at the load of say 8000 would have to decrease to
> 1.01:1 at the source end in order to account for 20 dB in losses. (See
> the example on page 24-9 of the 17th Edition.)

Here's an example. Assume 100w is delivered to the load for both the
matched and unmatched conditions. Assume 3dB matched line loss in the
transmission line. Assume an SWR of 5.83:1 (rho=0.707) at the load for
the mismatched condition.

Forward 200w------------3dB loss-------------Matched Load 100w

Forward 400w------------3dB loss-------------Mismatched Load 100w
Reflected 50w both Forward 200w
directions Reflected 100w

The equations gives an additional loss of 5.44dB. This is based on an
assumption that the losses are directly proportional to forward power
plus reflected power.

Remember that at the mouth of the stub, the impedance is equal to
(Vf + Vr)/(If + Ir) so, knowing the Z0, that should allow you to
calculate those four values existing at the mouth of the stub. From
that, you can calculate the total losses. More when I get back.

--
73, Cecil, W5DXP

# 2719. Re: Constructing a Cobra UltraLite Replica - Some Questions

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-26 16:53:48 UTC
From: Craig Buck <k4ia@cox.net>
Message-ID: <wcJpd.4391$SA.1644@lakeread02>
Source record: 86216

The whole point of the Cobra Ultralite is not some magic achieved by using a fat piece of zip wire for the antenna.

The point is using linear loading to make a very short antenna that will work on all bands. The antenna uses 3 wire rotor cable - easily found at any Radio Shack store. Each side is constructed so as to connect the three wires into one long continuous wire. 35 feet on each side becomes 3x35 or 105 feet of wire. You can see this if you look closely at the picture on the website. It is a whole lot easier to tune 210 feet of wire on 160 - 10 meters than it is to tune 70 feet of wire.

```
------------| |----------
|-----------| |---------|
|------------center----------|
```

Go ahead and substitute the 300 ohm - there is no magic to the feedline but as others have pointed out, the 300 ohm cable will have higher losses. Whether it is so much you would be able to tell any difference is conjecture.

There is no magic to the length of feedline either. Certain lengths will transform the antenna impedance to something unacceptable. If you have trouble tuning on a particular band try adding or subtracting some feedline and you will get away from the problem. Cebik as an article on his website about this http://www.cebik.com/gup/gup7.html
--
Radio K4ia
Craig "Buck"
Fredericksburg, VA USA
FISTS 6702 cc 788 Diamond 64

"Dave" <dave@somehere.net> wrote in message
news:pkbdq059vnhst90ep9v27oaec53t90j83p@4ax.com...
>I have read with interest the comments regarding the Cobra Ultralite.
> It's rare to see such unanimous praise on eHam so there must be
> something to it that people like so I guess that I will try to make
> one.
>
> On the Radio Shack site I have found Catalog #: 15-1150 (3 conductor
> Rotator Cable - 100 ft. - $14.49)
>
> My question to you guys is:
>
> What do you think the impact of substituting 300 ohm twin-lead (RS
> Catalog #: 15-1175 - 100ft. - $10.49) for the 450 ohm ladder line
> would be?

>
> If it would work, this antenna could be built for 25 bucks. Cheap
> enough to try it out and also much lighter than if made with ladder
> line.
>
> Also, why is it necessary to have so much ladder line (K1JEK says to
> use the full 100ft.)? Seems like there might be a way to tune this
> antenna without so much lead- in wire. At my home I could easily get
> away with a 50 foot lead in. I guess that I just don't like the
> aesthetics of having to loosely coil up 50 ft of unused ladder-line or
> twin-lead and have it hanging on the outside of the house.
>
> Appreciate any comments, thanks
>
> Dave

# 2720. Re: TX Distance question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-26 16:59:03 UTC
From: Doug Smith W9WI <w9wi@invalid.invalid>
Message-ID: <41A760D3.3020402@invalid.invalid>
Source record: 86217
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.misc

James wrote:
> I have limited experience (ok almost none really) with respect to
> Amateur Radio outside of the 2M band. However I just recently got my
> code ticket & installed a radio on my sailboat. I am using a TS-50 with
> an automatic tuner and a long copper wire to the top of the mast
> (probably 50 feet or so long).
>
> My ground plane/counterpoise consists of tying the ground to a large
> aluminium area in the stern of the boat with a copper foil.
>
> My very first contacts were established with 2 land stations on 14300 at
> 100W that were about 1000 miles away. They both reported that my signal
> was good and that it sounded like I was "sitting right next to them". I
> have no idea if this was a good distance, great, or mediocre.
>
> I realize that propogation variables prevent anyone from giving a really
> clear answer to this question, but in general, what sort of distance
> should I expect to achieve? I'm trying to decide whether I need to
> improve my antenna ground by adding a dynaplate (costly and requies the
> boat to be taken from the water for installation) or whether the range I
> am getting is decent.

Propagation will have a HUGE effect on your distance capability. Under good conditions your station should be able to work any point on earth. On the other hand, when the 14MHz band "goes out" (which at this point in the sunspot cycle will happen pretty much every night) you'll be lucky to work 30 miles.

I think the ground you describe should be more than adequate. (many land-based mobiles settle for something MUCH, MUCH worse!)

You'll need lower frequencies for nighttime operation. 7MHz and 3.5MHz. The antenna *may* (or may not) be too short for effective operation on these bands. Try it, the worst that can happen is the automatic tuner will refuse to make a match. (I think you'll probably be OK on 7, 3.5 may be a problem)

Good luck!
--
Doug Smith W9WI
Pleasant View (Nashville), TN EM66
http://www.w9wi.com

# 2721. UK DAB homebrew aerial

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-26 17:55:41 UTC
From: Z <post@imaris.demon.co.uk>
Message-ID: <w64mEjqd42pBFwSR@imaris.demon.co.uk>
Source record: 86218

Hi,
I have a Videologic DAB tuner but no aerial for it except the random
wire supplied.
I am unable to put an aerial on the roof so am looking for a home brew
solution.
Anyone know of any site where I can find aerial solutions.

--
Z
Remove all Zeds in e-mail address to reply.

# 2722. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-26 17:57:25 UTC
From: Wes Stewart <n7ws_@_yahoo.com>
Message-ID: <8opeq01i961d2kt5adv6vhtb32thc5rcf4@4ax.com>
Source record: 86219

On Fri, 26 Nov 2004 16:12:34 GMT, w9dmk@crosslink.net (Robert Lay
W9DMK) wrote:

|On Thu, 25 Nov 2004 20:51:16 -0700, Wes Stewart <n7ws_@_yahoo.com>
|wrote:
|
|>On Thu, 25 Nov 2004 20:20:32 GMT, w9dmk@crosslink.net (Robert Lay
|>W9DMK) wrote:
|>
|>Bob,
|>
|>You might want to look at this paper:
|>
|>http://users.triconet.org/wesandlinda/AIEE_High_Swr.pdf
|
|
|Dear Wes,
|
|I have downloaded the pdf file and printed it out. It's tough reading.

Yes. But the ITT Reference Data For Radio Engineers uses this paper
as a reference.

If you have Mathcad, a sheet that implements some of the equations was
included as a reference in my Balanced Transmission line paper.

http://users.triconet.org/wesandlinda/LineCalc.mcd

|I hope that MacAlpine agrees with what Dave and Richard are telling
|me, because their responses seem to be correct and are exactly what I
|was afraid of - that I've been sucked into another example of the
|strange terminology used to describe "losses".
|
|I have always thought of "loss" as a conversion to another form of
|energy (typically heat energy) which is lost from the system.
|Apparently, the kind of "loss" being described in the example that I
|gave is not a loss at all.

Yes it is. A simple-minded way of looking at it is if the SWR is
greater than unity then increased current is flowing in the line. The
line has resistive loss, so the I^2*R loss increases. The current
isn't constant (there is a current standing ratio, ISWR, just like a
VSWR) so there are peaks and valleys in the current and as you have
figured out, the longer the line and the higher its nominal loss, the
lower the ISWR is at the line input.

So the loss per unit length is non-linear and varies with distance from the mismatch, but it is a real dissipative loss.

For those interested in the loss in the shorted or open stub case, maybe this will be of interest:

http://users.triconet.org/wesandlinda/Stub_Matching_Loss.pdf

## 2723. HF Antenna Pickup Truck

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-26 18:23:23 UTC
From: Gary Boyer <gboyer@columbus.rr.com>
Message-ID: <vwKpd.40978$sk2.32424@fe2.columbus.rr.com>
Source record: 86220

Has anyone tried mounting a magnet mount hf antenna (Hamstick) on the top of a metal toolbox, the kind that are used in the back of pickup trucks......just curious...I realize the best place is on top of the cab....tnx...Gary, K8BY

# 2724. Re: HF Antenna Pickup Truck

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-26 18:44:10 UTC
From: "Z.Z." <nobody@nowhere.com>
Message-ID: <Xns95AD7763B58EBnobodynowhere@68.6.19.6>
Source record: 86221

Gary Boyer wrote:

> Has anyone tried mounting a magnet mount hf antenna (Hamstick) on the
> top of a metal toolbox ...

No, but does your truck have stake pockets? There's an outfit that makes antenna mounts that fit in the stake pockets of pickups. I got one for my Ranger to mount a 10M Hamstick. Works pretty well and is a rugged mount. It would probably handle something a lot bigger than the Hamstick. Can't remember the name but they advertise in QST. I had tried a magmount in the middle of the bed but couldn't tune the Hamstick there. I'd guess you'd have the same problem due to the cab. Using the stake pocket mount (in the rear-most pocket on the pasenger side) it works great.

OTOH, a friend of mine runs a screwdriver antenna mounted to the rear wall of his toolbox in his big Dodge PU and it seems to work OK...

73.. Mark AA7TA

# 2725. Re: Zo and Ro

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-26 19:00:48 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <co7uh0$88l$1@titan.btinternet.com>
Source record: 86122

> Dear Reg,
>
> The Smith Chart only constrains the normalizing quantity to be purely
> resistive - not the characteristic impedance of a particular
> transmission line being shown on that chart. My program, SmartSmith,
> for example, allows the user to specify both an Ro and an Xo term for
> all transmission line sections.
>
> Bob, W9DMK, Dahlgren, VA

==========

Hi Bob,

But your program is not a Smith Chart. It's probably better than a Smith
Chart.
----
Reg.

# 2726. Re: HF Antenna Pickup Truck

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-26 19:44:55 UTC
From: dplatt@radagast.org
Message-ID: <10qf1tn4slj3d9a@corp.supernews.com>
Source record: 86123

>Has anyone tried mounting a magnet mount hf antenna (Hamstick) on the top of
>a metal toolbox, the kind that are used in the back of pickup
>trucks......just curious...I realize the best place is on top of the
>cab....tnx...Gary, K8BY

There are two aspects to this: mechanical and electrical.

Mechanically, I'd imagine you'll be OK. A Hamstick is pretty thin,
and wouldn't have a large amount of wind-drag force on it. Assuming
that the toolbox is solidly constructed, the magmount's grip on its
roof would be sufficient to keep the antenna in place, and the drag
and torque on the toolbox lid's hinges probably wouldn't be enough to
matter. If I were you I'd arrange to snub the feed cable - clamp it
down to the frame somehow, so that if the mag-mount does pop loose you
don't find yourself dragging the antenna on the road behind the vehicle.

Electrically, there are a couple of issues. For one thing, if the
tookbox is immediately behind the cab, this arrangement might put the
Hamstick quite close to metal portions of the cab roof or uprights.
This sort of close antenna-to-body coupling tends to reduce the
antenna efficiency. Keep the antenna as far away from the metal body
as you can safely manage.

From what I've read, HF magmounts often don't have enough coupling
capacitance to give a really satisfactory grounding, even when mounted
right on the roof. It's usually desirable (and often necessary) to
run a short, fat grounding lead from the antenna base/feedpoint to a
solid grounding location on the vehicle frame. You should probably do
something like this if you do decide to mag-mount on the toolbox.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

# 2727. Re: Zo and Ro

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-26 20:13:30 UTC
From: radio913@aol.com
Message-ID: <1d15af91.0411261213.6c32f9f9@posting.google.com>
Source record: 86124

Cecil.A.Moore@ieee.org (Cecil Moore) wrote in message
news:<9001ac09.0411250853.aedb932@posting.google.com>...
>
> Where have you been? We have been *USING* "G = C * R / L" for
> discussion in this thread for days now. Maybe you didn't ask
> the question that you thought you had asked?

Ok, kids, can you say:

"BULLSHIT"?

Slick

# 2728. Kenwood KAT-1 auto ATU - help?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-26 20:17:54 UTC
From: harrogate2 <harrogate2@ntlworld.com>
Message-ID: <SbMpd.604$mD4.368@newsfe2-gui.ntli.net>
Source record: 86125

Lucky chap that I am I have been given a Kenwood KAT-1 auto ATU but without manuals.

I have spoken to Kenwood UK who advise that there are two control lines, TS and TT, both of which are listed as 'in/out.' I intend to use it with an Icom 706 which has ATU control lines marked TKEY and TSTR - I have a fair idea what these do and how they work.

Does any kind soul out there have a user or service manual for the KAT-1 and could tell me the functions and voltage levels of the TS and TT lines are please, or have such an ATU and could pass on any experiences?

Thanks in advance.

--
Woody

harrogate2 at ntlworld dot com

# 2729. Re: TX Distance question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-26 20:56:01 UTC
From: Jack Painter <223bthp@cox.net>
Message-ID: <CLMpd.4393$SA.3070@lakeread02>
Source record: 86126

"James" wrote
> an automatic tuner and a long copper wire to the top of the mast
> (probably 50 feet or so long).
>
> My ground plane/counterpoise consists of tying the ground to a large
> aluminium area in the stern of the boat with a copper foil.
>
> My very first contacts were established with 2 land stations on 14300 at
> 100W that were about 1000 miles away. They both reported that my signal
> was good and that it sounded like I was "sitting right next to them". I
> have no idea if this was a good distance, great, or mediocre.
>
> I realize that propogation variables prevent anyone from giving a really
> clear answer to this question, but in general, what sort of distance
> should I expect to achieve? I'm trying to decide whether I need to
> improve my antenna ground by adding a dynaplate (costly and requies the
> boat to be taken from the water for installation) or whether the range I
> am getting is decent.

James, considering you most likely have an ungrounded counterpoise instead of a good ground commonly employed, I think that's outstanding distance from a sailboat. In many cases during daytime operation, I have heard the Mobile Maritime Nets have to shift around to various operators before they could have copy as good as you describe, and from a lot less distance. If all you intend to use the radio for is hobby work on the 40 meter band, why mess with success? However your 50' of wire should typically also tune up on 2182 khz sufficiently for the distance commonly covered by USCG Groups and Caribbean RCC's (about 200 miles). Canadian Coast Guard Radio stations will often answer vessels as far as 500 miles away. Higher bands of maritime mobile channels would be better of course. I'm sure you're aware those require a separate station license on your vessel. Good job on installing your station. If you come up on maritime mobile maybe we'll get to talk someday.

Jack Painter
Oceana Radio
Virginia Beach VA

# 2730. Re: Zo and Ro

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-26 22:05:13 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <co89ap$4kv$1@sparta.btinternet.com>
Source record: 86127

Bob, your program can probably calculate the input impedance, Rin + j*Xin,
of a line having Zo = Ro + j*Xo, with given attenuation Alpha dB, and given
phase-shift Beta radians, with a terminating impedance Rt + j*Xt.

Which is a commonly needed quantity on the way to calculating the ultimate,
all-important, single number, transmission efficiency.

But can you do it with nothing at hand except a Smith Chart?
----
Yours, Reg.

# 2731. Re: HF Antenna Pickup Truck

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-26 22:17:55 UTC
From: Chuck <nospam@nospam.com>
Message-ID: <nYNpd.338$6K5.6@newsread2.news.atl.earthlink.net>
Source record: 86128

Aren't these tool boxes generally aluminum or stainless steel?

Gary Boyer wrote:
> Has anyone tried mounting a magnet mount hf antenna (Hamstick) on the top of
> a metal toolbox, the kind that are used in the back of pickup
> trucks......just curious...I realize the best place is on top of the
> cab....tnx...Gary, K8BY
>
>

## 2732. Re: TX Distance question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-26 22:50:30 UTC
From: Dan/W4NTI <w4nti@get>
Message-ID: <WqOpd.364$6K5.113@newsread2.news.atl.earthlink.net>
Source record: 86129
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.misc

"Bill Turner" <noway@nohow.com> wrote in message
news:q7ueq0tirgcaqaofb6osj3bdqedtkp646g@4ax.com...
> On Fri, 26 Nov 2004 10:14:46 -0500, James <Nonethanks@NOSPAM.com> wrote:
>
> >I'm trying to decide whether I need to
> >improve my antenna ground by adding a dynaplate (costly and requies the
> >boat to be taken from the water for installation) or whether the range I
> >am getting is decent.
>
> ____________________________________________________
>
> I'd say your system is working pretty well. 50 feet is too long for a
> 20 meter antenna, however. Your auto tuner is correcting for it, but a
> shorter length will actually work better, since the auto tuner won't
> have to introduce as much correction and therefore will have lower loss
> in the tuner itself.
>
> The vertical part of a ground plane antenna (which is what you have) can
> be determined by the formula Feet=234/Freq, or for 14.3 MHz, 16.4 feet
> (rounded off). The exact footage depends on variables in the immediate
> environment, but that should be close enough. If you have to have a 50
> foot overall wire because of the height of the boat's mast, just put an
> egg insulator at the 16.4 foot length to break it up. For multiple
> bands, figure the length of each section and put egg insulators where
> needed, and then to change bands, just connect a jumper wire across
> various eggs to get the correct length. Neat, huh? :-)
>
> Also, you can't have too much ground area, within reason. More aluminum
> foil or copper is always better.
>
> If you have access to an SWR analyzer such as the MFJ 259, so much the
> better. They are highly recommended for making and troubleshooting
> antennas.
>
> --
> 73, Bill W6WRT
>
Bill,

50 foot is only too long if you are sticking with the resonant length
situation. Which is not really necessary with his setup. In fact he
probably gets better versatility with the longer length. Just an opinion.

Dan/W4NTI

# 2733. Need Telrex Manual

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-26 23:08:26 UTC
From: w2zr@aol.com.nospam
Message-ID: <20041126180826.06621.00000950@mb-m15.aol.com>
Source record: 86130

Hi,
Can anyone tell me where I might obtain the assembly instructions or
manual for a 3 element 20m Telrex yagi? Thanks.

73,
Steve W2ZR

# 2734. Re: HE3RSI: An antenna simulation challenge

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-26 23:32:43 UTC
From: David J Windisch <davidw@copper.net>
Message-ID: <41a7bd69_2@newsfeed.slurp.net>
Source record: 86131

Sig was alarmingly loud on 40 c-w.
N3HE
"J Laub" <wd0bka@netscape.net> wrote in message
news:10qebrlp330q087@news.supernews.com...
> my interest is peaked now.
>
> C.Aymon wrote:
>> During the month of november 2004, a group of swiss radio-amateurs have
>> the
>> unique opportunity to use the antenna system of Swiss Radio International
>> in
>> Sottens. The call used for this special event is HE3RSI. Pictures of the
>> antennas are available here http://www.hb9mm.com/photos/Sottens2004
SNIP

# 2735. Re: HF Antenna Pickup Truck

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-26 23:34:07 UTC
From: jgboyles@aol.com
Message-ID: <20041126183407.06204.00000614@mb-m21.aol.com>
Source record: 86132

>Has anyone tried mounting a magnet mount hf antenna (Hamstick) on the top of
>a metal toolbox?

Hi Gary, If your toolbox is like mine, it is Aluminum, and the mag mount won't stick. I attached a small steel plate on the top of the box and use it for a 2M mag mount.
For my homebrew HF mobile antenna I use a mounting system on the backside of the box. I get good results with my bugcatcher type antenna on 80m-17m mounted in this location. The loading coil is about 1 foot above the cab top. Since a Hamstick is continously loaded, and may not be as efficient as a bugcatcher, you may not have similar results, mounting at the rear of the box.

73 Gary N4AST

# 2736. Re: Zo and Ro

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-27 00:16:17 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <ajhfq0pnha7kdloa8ci06gi6optcmd3svt@4ax.com>
Source record: 86133

On Fri, 26 Nov 2004 22:05:13 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:
>But can you do it with nothing at hand except a Smith Chart?
Turn the chart over and write the math on the back - GEEZ

# 2737. Re: Zo and Ro

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-27 01:02:37 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <co8jnc$6g6$1@titan.btinternet.com>
Source record: 86134

> Turn the chart over and write the math on the back - GEEZ

==========
Can you do it yourself within 3 months? It will take that long to dig out
the formulae.

I've just realised this is the first occasion I've ever been at the bottom
end Z of a newsgroup message listing. You can't get any lower!
----
Yours, Punchinello.

# 2738. Re: Zo and Ro

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-27 01:50:43 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <8omfq010bqsofhdagvj474nfpj6s0qjule@4ax.com>
Source record: 86135

On Sat, 27 Nov 2004 01:02:37 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>> Turn the chart over and write the math on the back - GEEZ

>Can you do it yourself within 3 months? It will take that long to dig out
>the formulae.

Turn the chart back over and save yourself the time. Any more effort
will burn more calories than any transmission line.

>I've just realised this is the first occasion I've ever been at the bottom
>end Z of a newsgroup message listing. You can't get any lower!

You can if you start the thread and no one comes to the party.

It's been said that if you haven't failed - you aren't trying hard
enough.

73's
Richard Clark, KB7QHC

# 2739. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-27 05:16:22 UTC
From: "George, W5YR" <w5yr@att.net>
Message-ID: <G4Upd.63327$7i4.34315@bgtnsc05-news.ops.worldnet.att.net>
Source record: 86136

Keep in mind that real ohmic and dielectric losses measured in watts depend upon sqrt(SWR). Thus, the higher the SWR (load mismatch) the greater the I^2R losses in the conductors and similarly in the dielectric.

So, to me, a non-unity SWR connotes real power loss measurable in watts and attributable to well-known loss mechanisms.

Of course, any real power lost in the line materials represents power not delivered to the load, so this fits somewhat with the viewpoint that Line Loss is in fact the magnitude of power undelivered to the load due to the mismatch. But, I think that we are looking at real watts of loss here.

Another confusing factor is that one is usually interested in the total loss attributable to the use of a mismatched line and not especially in how that loss is distributed along the line from load to source. But there are applications where the loss distribution with line length is of concern. An example is the case of a complex Zo with rho > unity in which the majority of the power loss occurs in the section of the line nearest the load and decreases toward the source. In that case of probably limited application, the line nearest the load might be required to handle more power than that further toward the source.

A somewhat related example concerns the W2DU balun in which is it observed that the beads nearest the mismatched load endure the largest heat dissipation and are commonly larger that the remainder further toward the source.

However, since complex Zo is an issue of magnitude usually only at low r-f and more so at audio frequencies, this is seldom a practical consideration.

Thanks for bringing this topic to light, Bob. Like most engineers, I have been guilty of looking at "line loss" as a monolithic phenomenon and not being concerned with the micro-structure of its distribution.

--
73, George W5YR
Fairview, TX
w5yr@att.net
http://www.w5yr.com

"Robert Lay W9DMK" <w9dmk@crosslink.net> wrote in message
news:41a74b32.6971244@news.crosslink.net...
> On Thu, 25 Nov 2004 20:51:16 -0700, Wes Stewart <n7ws_@_yahoo.com>
> wrote:
>
> >On Thu, 25 Nov 2004 20:20:32 GMT, w9dmk@crosslink.net (Robert Lay
> >W9DMK) wrote:

> >
> >Bob,
> >
> >You might want to look at this paper:
> >
> >http://users.triconet.org/wesandlinda/AIEE_High_Swr.pdf
>
>
> Dear Wes,
>
> I have downloaded the pdf file and printed it out. It's tough reading.
> I hope that MacAlpine agrees with what Dave and Richard are telling
> me, because their responses seem to be correct and are exactly what I
> was afraid of - that I've been sucked into another example of the
> strange terminology used to describe "losses".
>
> I have always thought of "loss" as a conversion to another form of
> energy (typically heat energy) which is lost from the system.
> Apparently, the kind of "loss" being described in the example that I
> gave is not a loss at all. It's more like "return loss", which is also
> not a true "loss" in my thinking. In other words, it seems that the
> "Additional Losses Due to SWR" are not losses at all, but are simply a
> measure of the power that "could" have been delivered to the load were
> it not for the mis-match.
> Bob, W9DMK, Dahlgren, VA
> http://www.qsl.net/w9dmk

## 2740. Re: TX Distance question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-27 06:35:49 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <9fVpd.33452$Qv5.3907@newssvr33.news.prodigy.com>
Source record: 86137
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.misc

...Keep the 50 feet, use a tuner. Quit wasting good
'worry' on tuner losses, they don't amount to enough
to worry about. The 'additional' length (and that
tuner) gives you access to other bands. Will it be the
'best' possible antenna? Of course not, but it'll
certainly be adequate...
'Doc

# 2741. Re: TX Distance question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-27 13:10:11 UTC
From: James <None@NOSPAM.com>
Message-ID: <Z1%pd.65840$Ro.2532273@news20.bellglobal.com>
Source record: 86138
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.misc

'Doc wrote:
> ...Keep the 50 feet, use a tuner. Quit wasting good
> 'worry' on tuner losses, they don't amount to enough
> to worry about. The 'additional' length (and that
> tuner) gives you access to other bands. Will it be the
> 'best' possible antenna? Of course not, but it'll
> certainly be adequate...
> 'Doc

Thanks for the feedback folks. Doc is on the right track. THe tuner works really well (way to go SGC, nice product!) and the antenna length doesn't seem to be impeding transmission distance.

Furthermore, the length, although not electrically correct for all frequencies, is convenient physically for a sail boat.

Glad to hear that the 1000 mile distance I attained was acceptable performance. My actual planned use is for keeping in touch with other vessels (friends) that are within a couple of thousand miles tops. Hopefully it will do the trick.

Thanks for the feedback folks. Muuch appreciated.

Jimmy

# 2742. SWR meter calibration question - hooked up backwards?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-27 14:18:16 UTC
From: Ken Bessler <kg0wx@NOSPAMyahoo.com>
Message-ID: <H00qd.6746$3I.6059@okepread01>
Source record: 86139

I have a MFJ 864 SWR/power meter. It has
two main circuits - 1.8-60 mhz & 144/440 mhz.

I'm working on the HF section, trying to make
sure it's correct. I have a known good power
meter and a 1:1 load.

If I set the forward power to 5w, can I get away
with hooking up the meter backwards to read
reflected power?

I set forward power to 5 w then reversed the
connection and adjusted for 5 w reflected.

Is this ok?

Ken KG0WX

# 2743. Re: SWR meter calibration question - hooked up backwards?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-27 14:53:28 UTC
From: Ralph Mowery <rmowery28146@earthlink.net>
Message-ID: <lx0qd.1334$6K5.994@newsread2.news.atl.earthlink.net>
Source record: 86140

"Ken Bessler" <kg0wx@NOSPAMyahoo.com> wrote in message
news:H00qd.6746$3I.6059@okepread01...
> I have a MFJ 864 SWR/power meter. It has
> two main circuits - 1.8-60 mhz & 144/440 mhz.
>
> I'm working on the HF section, trying to make
> sure it's correct. I have a known good power
> meter and a 1:1 load.
>
> If I set the forward power to 5w, can I get away
> with hooking up the meter backwards to read
> reflected power?
>
> I set forward power to 5 w then reversed the
> connection and adjusted for 5 w reflected.
>
> Is this ok?
>
> Ken KG0WX
>
You can connect the wattmeter/swr meter either way. If hooked up
"backwards" then the forward and reverse scales become reversed.

You can adjust the 5 watt reflected power by hooking it up in reverse into a
dummy load and use a calibrated meter in series with it just as I think that
is your question.

# 2744. Re: TX Distance question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-27 15:22:49 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <z9ydnRUu1rpZBjXcRVn-uA@comcast.com>
Source record: 86141
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.misc

"Bill Turner" <noway@nohow.com> wrote in message
news:q7ueq0tirgcaqaofb6osj3bdqedtkp646g@4ax.com...
> On Fri, 26 Nov 2004 10:14:46 -0500, James <Nonethanks@NOSPAM.com> wrote:
>
>>I'm trying to decide whether I need to
>>improve my antenna ground by adding a dynaplate (costly and requies the
>>boat to be taken from the water for installation) or whether the range I
>>am getting is decent.
>
> ____________________________________________________
>
> I'd say your system is working pretty well. 50 feet is too long for a
> 20 meter antenna, however. Your auto tuner is correcting for it, but a
> shorter length will actually work better, since the auto tuner won't
> have to introduce as much correction and therefore will have lower loss
> in the tuner itself.
>
> The vertical part of a ground plane antenna (which is what you have) can
> be determined by the formula Feet=234/Freq, or for 14.3 MHz, 16.4 feet
> (rounded off). The exact footage depends on variables in the immediate
> environment, but that should be close enough. If you have to have a 50
> foot overall wire because of the height of the boat's mast, just put an
> egg insulator at the 16.4 foot length to break it up. For multiple
> bands, figure the length of each section and put egg insulators where
> needed, and then to change bands, just connect a jumper wire across
> various eggs to get the correct length. Neat, huh? :-)

Exactly what I was going to suggest. This will be easy to do if you have a
pully on the top end so you can easily drop the wire to change the shorting
straps. With the 50 foot wire, I would be concerned about getting high angle
radiation on 10/15/20 metters. Dog bone insulators might put less capacitive
loading on the top of the disconnected section.

Tam/WB2TT
>
> Also, you can't have too much ground area, within reason. More aluminum
> foil or copper is always better.
>
> If you have access to an SWR analyzer such as the MFJ 259, so much the
> better. They are highly recommended for making and troubleshooting
> antennas.
>
> --
> 73, Bill W6WRT

>

# 2745. Re: TX Distance question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-27 16:51:01 UTC
From: James <None@NOSPAM.com>
Message-ID: <_g2qd.83079$Le1.1702984@news20.bellglobal.com>
Source record: 86142
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.misc

Bill Turner wrote:
> On Sat, 27 Nov 2004 06:35:49 GMT, 'Doc <w5lz@cwis.net> wrote:
>
>
>>Will it be the
>>'best' possible antenna? Of course not, but it'll
>>certainly be adequate...
>> 'Doc
>
>
> ____________________________________________________
>
> More cost, less performance. Amazes me what some people think is
> "adequate".
>
> I'd lose the tuner and spend the money on more goodies for the boat.
>
> Oh, well.
>
> --
> Bill W6WRT
>

How about adequate performance and convenience?

Ever been aboard an ocean going sail boat when the waves hit 5 meters and the wind is howling like a freight train? If not you can't imagine the fury. I've been there. It's exhilirating but not easy to endure. In fact it's damned hard work. That is NOT the time to be playing with knobs and switches trying to tune for a particular band. Believe me, I will have more imporant things to do. But I do want to know that I can tranmsit immediately if something terrible happens by just keying the mic. No fuss.

No offence but I've always been intrigued watching amateur enthusiasts wiggling knobs and waggling switches. Reminds me of a scene from the wizard of oz for some reason. Seems so unnecessary in this day and age.

CONVENIENCE is a VERY good a reason as any to use a tuner. And they're not all that costly either. A few hundred bucks at best.

Just my 2 cents worth.

Jimmy

# 2746. Re: TX Distance question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-27 17:52:36 UTC
From: Me <Me@shadow.orgs>
Message-ID: <Me-526EEF.08523727112004@netnews.worldnet.att.net>
Source record: 86143
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.misc

In article <3tmfq0h8l0vs4bna6fb0mkb6fvft8grgav@4ax.com>,
Bill Turner <noway@nohow.com> wrote:

> If you're a purist, a simple L-network at the base will
> transform whatever impedance you have to exactly 50 ohms. L-networks of
> this type are quite broadbanded and one setting will usually cover the
> whole band.
>
> Tuners, begone! :-)
>
> --
> Bill W6WRT

In what world does an "L network" not equal exactly what a tuner does
for a wire antenna? An autotuner is nothing more than a binary
incremented L Network with autofeedback of directional power, and phase.
You suggestion is the same thing with no feedback or incremental changes.

Me

# 2747. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-27 18:03:11 UTC
From: Frank <ve6cb@NOSPAM.telus.net>
Message-ID: <zj3qd.216349$9b.60519@edtnps84>
Source record: 86145

Modeling a free space dipole made from a lossless conductor, 100 ft in length, at 1.8 MHz shows an input impedance of 6.694 - j1621 Ohms. As expected the radiation efficiency is 100%.

Adding 300 ft of 600 Ohm, 6" spaced, copper open wire transmission line degrades the radiation efficiency to 16.75 %. The result, therefore indicates a transmission line loss of 7.76 dB. The input impedance is calculated as 11 - j619.7 Ohms.

The ARRL, DOS based program, "TL" computes, for 300 ft of 600 Ohm line terminated with 6.694 - j1621 Ohms, a loss of 8.19 dB, and an input impedance of 18.35 - j805 Ohms.

Realizing that 6" spaced, #14 AWG, is not exactly 600 Ohms, and NEC's computation of parallel wire transmission lines is not 100% accurate; the results do seem to confirm the validity of the ARRL's program.

Another interesting experiment with the ARRL's program also seems to verify its accuracy:

RG8, 1000 ft, frequency 100 MHz. Matched line loss = 24.82 dB.
Load impedance 1 - j1000 Ohms. Total line loss = 61.82 dB.
The program computes the input impedance to by: 50.3 - j0.2 Ohms.

73,

Frank

"George, W5YR" <w5yr@att.net> wrote in message
news:G4Upd.63327$7i4.34315@bgtnsc05-news.ops.worldnet.att.net...
> Keep in mind that real ohmic and dielectric losses measured in watts
> depend
> upon sqrt(SWR). Thus, the higher the SWR (load mismatch) the greater the
> I^2R losses in the conductors and similarly in the dielectric.
>
> So, to me, a non-unity SWR connotes real power loss measurable in watts
> and
> attributable to well-known loss mechanisms.
>
> Of course, any real power lost in the line materials represents power not
> delivered to the load, so this fits somewhat with the viewpoint that
> Line Loss is in fact the magnitude of power undelivered to the load due to
> the mismatch. But, I think that we are looking at real watts of loss here.
>
> Another confusing factor is that one is usually interested in the total
> loss
> attributable to the use of a mismatched line and not especially in how

> that
> loss is distributed along the line from load to source. But there are
> applications where the loss distribution with line length is of concern.
> An
> example is the case of a complex Zo with rho > unity in which the majority
> of the power loss occurs in the section of the line nearest the load and
> decreases toward the source. In that case of probably limited application,
> the line nearest the load might be required to handle more power than that
> further toward the source.
>
> A somewhat related example concerns the W2DU balun in which is it observed
> that the beads nearest the mismatched load endure the largest heat
> dissipation and are commonly larger that the remainder further toward the
> source.
>
> However, since complex Zo is an issue of magnitude usually only at low r-f
> and more so at audio frequencies, this is seldom a practical
> consideration.
>
> Thanks for bringing this topic to light, Bob. Like most engineers, I have
> been guilty of looking at "line loss" as a monolithic phenomenon and not
> being concerned with the micro-structure of its distribution.
>
> --
> 73, George W5YR
> Fairview, TX
> w5yr@att.net
> http://www.w5yr.com
>
>
> "Robert Lay W9DMK" <w9dmk@crosslink.net> wrote in message
> news:41a74b32.6971244@news.crosslink.net...
>> On Thu, 25 Nov 2004 20:51:16 -0700, Wes Stewart <n7ws_@_yahoo.com>
>> wrote:
>>
>> >On Thu, 25 Nov 2004 20:20:32 GMT, w9dmk@crosslink.net (Robert Lay
>> >W9DMK) wrote:
>> >
>> >Bob,
>> >
>> >You might want to look at this paper:
>> >
>> >http://users.triconet.org/wesandlinda/AIEE_High_Swr.pdf
>>
>>
>> Dear Wes,
>>
>> I have downloaded the pdf file and printed it out. It's tough reading.
>> I hope that MacAlpine agrees with what Dave and Richard are telling
>> me, because their responses seem to be correct and are exactly what I

>> was afraid of - that I've been sucked into another example of the
>> strange terminology used to describe "losses".
>>
>> I have always thought of "loss" as a conversion to another form of
>> energy (typically heat energy) which is lost from the system.
>> Apparently, the kind of "loss" being described in the example that I
>> gave is not a loss at all. It's more like "return loss", which is also
>> not a true "loss" in my thinking. In other words, it seems that the
>> "Additional Losses Due to SWR" are not losses at all, but are simply a
>> measure of the power that "could" have been delivered to the load were
>> it not for the mis-match.
>> Bob, W9DMK, Dahlgren, VA
>> http://www.qsl.net/w9dmk
>
>

# 2748. Re: TX Distance question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-27 18:03:41 UTC
From: Bruce in Alaska <bruceg@btpost.net>
Message-ID: <bruceg-EEE182.09034227112004@netnews.worldnet.att.net>
Source record: 86144
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.misc

In article <Z1%pd.65840$Ro.2532273@news20.bellglobal.com>,
James <None@NOSPAM.com> wrote:

> Thanks for the feedback folks. Doc is on the right track. THe tuner
> works really well (way to go SGC, nice product!) and the antenna length
> doesn't seem to be impeding transmission distance.
>
> Furthermore, the length, although not electrically correct for all
> frequencies, is convenient physically for a sail boat.
>
> Glad to hear that the 1000 mile distance I attained was acceptable
> performance. My actual planned use is for keeping in touch with other
> vessels (friends) that are within a couple of thousand miles tops.
> Hopefully it will do the trick.
>
> Thanks for the feedback folks. Muuch appreciated.
>
> Jimmy

With a 50' antenna length and an adiquate RF Ground, one could
consider that a respectable Marine Radio Installation.

One thing that needs to be understood is that ALL Autotuners
have a REALLY BIG difficency that is inherent in their design.
They can NOT tune wires at the Half Wavelength point and 50Khz on each
side. At this point antenna impedance becomes Infinite and can't be
tuned. so a boater must make sure that he never intends to transmit
on the frequency that is at the electrical Half Wavelength of the
antenna. He may need to lengthen ot shorten the wire to adjust
for this condition.

Bruce in alaska
--
add a <2> before @

## 2749. S-meters (copied from the Homebrew newsgroup)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-27 18:05:48 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <coafls$slt$1@sparta.btinternet.com>
Source record: 86146

S-meters are nothing else but power (input) meters.

Amateurs and meter manufacturers long ago learned, that when giving signal strength reports, it is more convenient to refer to meter indications in terms of S-units rather than micro-watts or nano-watts.

At HF, when the meter reads S-9 the power entering the receiver is 50 pico-watts. There's a slight complication above S-9 when the meter scale changes to decibels above S-9.

When the reading is S-9 plus 40 dB the meter is actually indicating about S-16. It's just a matter of scale graduations and printing.

The S-meter does NOT measure or even indicate field strength. It indicates nothing except that an increase in meter reading corresponds to an increase in field strength. Which may be nice to know but by how much of an increase is anybody's guess.

Measured field strength depends on the type of antenna, its efficiency, ground losses, etc. It is possible, of course, to calculate field strength in the vicinity of the antenna from S-meter readings provided the antenna, its directivity, transmission line, tuner and ground characteristics are all known numerically. Which in the amateur situation they are seldom not! Or even in the professional situation.

You've all got one. To repeat - the S-meter is a power (input) meter.
----
Reg, G4FGQ

# 2750. Re: TX Distance question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-27 18:48:54 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <9fihq0dot5pba93459orutcf42bq742iqu@4ax.com>
Source record: 86147
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.misc

On Fri, 26 Nov 2004 10:14:46 -0500, James <Nonethanks@NOSPAM.com>
wrote:

>Can anyone comment?

Hi James,

Well, as to the DX range, that has been responded to. So, to add to
all the comments in regard to height of antenna, tuners, automatic
tuners and the rest - another comment.

Take a fishing reel full of the Wireman's Flex weave (no doubt this
will provoke comments about wire corrosion) and drive it. Use your
hoist to pull out the correct height for any band.

I do take note of your admonition about fumbling with knobs, dials,
switches when a rogue wave is overtaking you. Your knottage may vary.

73's
Richard Clark, KB7QHC

## 2751. Re: S-meters (copied from the Homebrew newsgroup)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-27 18:55:51 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <t1jhq090dpjomiqbu1pc50q4bemrmtvgjd@4ax.com>
Source record: 86148

On Sat, 27 Nov 2004 18:05:48 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:
>You've all got one. To repeat - the S-meter is a power (input) meter.

BAFFLEGAB!!!! It's a reception line indicator (RLI). If the line
falls down, so do the readings. ;-)

73's
Richard Clark, KB7QHC

## 2752. Re: S-meters (copied from the Homebrew newsgroup)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-27 19:43:24 UTC
From: Frank <ve6cb@NOSPAM.telus.net>
Message-ID: <wN4qd.217617$9b.158132@edtnps84>
Source record: 86149

I think S meters should be calibrated in dB uV/m, or at least dBm input.

Frank

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:t1jhq090dpjomiqbu1pc50q4bemrmtvgjd@4ax.com...
> On Sat, 27 Nov 2004 18:05:48 +0000 (UTC), "Reg Edwards"
> <g4fgq.regp@ZZZbtinternet.com> wrote:
>>You've all got one. To repeat - the S-meter is a power (input) meter.
>
> BAFFLEGAB!!!! It's a reception line indicator (RLI). If the line
> falls down, so do the readings. ;-)
>
> 73's
> Richard Clark, KB7QHC

## 2753. Re: S-meters (copied from the Homebrew newsgroup)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-27 20:11:14 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <coan12$pdn$1@hercules.btinternet.com>
Source record: 86150

Rich, your jestful response is an absolute confirmation that my description
of the function of S-meters is the correct one.

Thank you!
----
Yours, gratefully, Punchinello.

# 2754. Re: TX Distance question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-27 21:16:29 UTC
From: James <None@NOSPAM.com>
Message-ID: <U96qd.73079$Ro.2740348@news20.bellglobal.com>
Source record: 86152
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.misc

Bill Turner wrote:
> On Sat, 27 Nov 2004 11:51:01 -0500, James <None@NOSPAM.com> wrote:
>
>
>>Ever been aboard an ocean going sail boat when the waves hit 5 meters
>>and the wind is howling like a freight train? If not you can't imagine
>>the fury. I've been there. It's exhilirating but not easy to endure. In
>>fact it's damned hard work. That is NOT the time to be playing with
>>knobs and switches trying to tune for a particular band.
>
>
> ____________________________________________________
>
> Your point is well taken, but this is also NOT the time for equipment
> failure. If that nifty tuner gets dunked with a dollop of salt water,
> you are dead, RF wise. The KISS principle is your friend.
>
> Anyone who can do a sail change or heave to in 5 meter waves can clip or
> unclip a jumper, or better yet, will have the jumper set beforehand.
>
> To each his own.
>
> --
> Bill W6WRT
>
>
>

Thanks for the words of wisdom Bill.

In fact I made a point of purchasing a tuner that comes in a water tight (read that water PROOF according to the manfacturer) case. It's high up mounted in a lazerette that "theoretically" stays dry. The ground and antenna stud are both 316 Stainless (highly corrosion resistant and intended for use in salt air). Furthermore, the electrical connection between antenna stud and wire is soldered, crimped, and then heat shrunk with adhesive lined shrink. Instead of using high tension wire for the antenna connection to the backstay wire, I used tinned copper heavy gauge insulated electrical wire. The environment that I live in is so corrosive that, believe it or not I had to strip back the jacket to expose the tinned copper wire, and then seal the cut edge of the jacket to prevent salt water ingress between jacket and wire. If that isn't done even tinned copper wire will corrode. Salt water will creep under the jacket and corrosion will occur for a few feet distance from the

stripped jacket.

All connections (RF, power and control) between tuner and radio are made with crimp and solder, then sealed with liquid electrical tape, then adhesive lined heat shrink. I bought really big insulators to go at both ends of the wire antenna too. Salt water is conductive and the larger insulator with heavy ribbing will hopefully reduce the surface coating of salty water to a level that precludes conductivity. Hopefully. the copper wire I ran up the mast is on it's own pulley (well it will be when I find time to go up the mast) and is already a lovely shade of green. I have a spare, and hope this one lasts a year before needing replacement.

Even so, I expect to have to service the connections about once a year or so.

And you thought putting a beam on a tower was hard! Just thought you'd find the lengths we have to go to in the ocean environment interesting.

The KISS principle is followed where ever I can too. I sincerely agree. When things go badly on board, it's rarely one big bad thing that bites ya. It's a string of small problems that...when combined, lead to a bad day. I guess that's true in a lot of endeavors come to think of it. Last time I was in a bad storm (a really bad one at that) I was on the radio seeking information from someone else who had radar (I do not). My autohelm had failed (a lousy 25 cent pin broke) and so I had to hand steer in heavy seas. I couldn't leave the wheel. Fortunately the mic on my marine VHF radio ~just~ reached the wheel from inside. Unfortunately that is when I discovered that if I pulled on the mic cable it became very intermittent. And that led to me spending a half hour trying to raise a nearby boat with radar to ask which way the storm appeared to be moving. Then the lightning started hitting the water all around me...from there...well...let's just say it went downhill some.

Simple is good.

Thanks again for the feedback.

## 2755. Re: S-meters (copied from the Homebrew newsgroup)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-27 21:20:57 UTC
From: Allodoxaphobia <bit-bucket@config.com>
Message-ID: <slrncqhrtp.29g4.bit-bucket@shell.config.com>
Source record: 86151

```
On Sat, 27 Nov 2004 19:43:24 GMT, Frank hath writ:
>
> "Richard Clark" <kb7qhc@comcast.net> wrote in message
> news:t1jhq090dpjomiqbu1pc50q4bemrmtvgjd@4ax.com...
>> On Sat, 27 Nov 2004 18:05:48 +0000 (UTC), "Reg Edwards"
>> <g4fgq.regp@ZZZbtinternet.com> wrote:
>>>You've all got one. To repeat - the S-meter is a power (input) meter.
>>
>> BAFFLEGAB!!!! It's a reception line indicator (RLI). If the line
>> falls down, so do the readings. ;-)
>>
> I think S meters should be calibrated in dB uV/m, or at least dBm input.

Don't the S-meters on 11 Meter radios read out in pounds?

73
Jonesy
--
| Marvin L Jones | jonz | W3DHJ | linux
| Gunnison, Colorado | @ | Jonesy | OS/2 __
| 7,703' -- 2,345m | config.com | DM68mn SK
```

# 2756. Dumb Question Dept. - Antenna Angle

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-27 21:34:41 UTC
From: Zachary Taylor <zach56@bellsouth.net>
Message-ID: <0bshq0tm71lg6e1d9dvuf6g0s4s9cnl20d@4ax.com>
Source record: 86153

I have a sloper that is 73 feet long.
The high end is 34 feet high, and the low end is 8 feet high.
What angle is the antenna?

It's a shame I can't figure out something I should have learned
in the 6th grade; but I don't know how to set the problem up.

Thanks,
Zack

# 2757. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-27 21:43:12 UTC
From: w9dmk@crosslink.net
Message-ID: <41a8c913.22913377@news.crosslink.net>
Source record: 86155

On Fri, 26 Nov 2004 07:33:04 GMT, Richard Clark <kb7qhc@comcast.net>
wrote:

....snip
>Reference Data for Radio Engineers, "Mismatch and Transducer Loss,"
>"One End Mismatched," pg. 22-12:
> Transducer Loss = A0 + 10 log (Pm/P) decibels
>where
> A0 = normal attenuation of the line
> Pm = power that would be delivered were system matched
> P = power delivered to the load
>
>Of particular note is that this is one of my references as to the
>nature of Source Z which is often neglected in academic treatments
>with the presumption that the engineer has already been schooled in
>the nature of Real sources (this may shock some complaisant readers
>here). However, this citation offers that explicit lesson in figure
>10 and makes use of this commonplace characteristic in illustrations
>of Mismatch Uncertainty. They go as far as to explicitly offer a
>section entitled "Generator and Load Mismatched." You may wish to
>review this treatment as it offers the math that would present the
>most loss available in a line, above and beyond the typical charts
>offered for line loss (which are confined to both ends being matched).

Dear Richard,

I'm finally ready to comment on the above - it is my great fortune to be blessed with copies of both the Fourth and Fifth Editions of the ITT Handbook.

I studied over the first 13 pages of Chapter 22 and found that, just as Wes said, it's entirely the work of MacAlpine as published in 1953.

I went over Equations (1) through (4) in the Mismatch section very carefully and found no heartburn with anything in that section. This is NOT to say that I LIKE it, but I do understand it and have no problem with the math model and the figures. My problems with the two mismatch topics is simply that I just don't like to call it a loss when energy that COULD have been delivered to the load does NOT get delivered to the load as a result of mismatch. For me, lost energy in a transmission line problem is energy actually lost in the transmission line, not energy that is being lost elsewhere as a result of the transmission line not being matched properly. I realize that I'm probably alone in that thinking, but I like to feel that such terms as efficiency and losses should be associated strongly with the

item under evaluation, namely the transmission line, and not the ancillary equipment which feed it or terminate it. Those items get their own hearings relative to efficiency and losses and those evaluations do not require the presence of the transmission line. In fact, those items are usually evaluated as to their performance in ways that do not in any way relate to how well some transmission line is or is not working.

However, this is not the nub of the problem that I was encountering - a problem which has now been partly resolved. At least I think I have a far, far better understanding of the problem now than I had a few days ago. The problem centers on the Additional Losses Due to SWR and how to model them. Since it is, perhaps, more appropriate to continue that topic under the responses from Wes, I will not go into it here.

I want to thank you and Wes, both, for leading me to Chapter 22 - it is much more readable than MacAlpine's original paper.

Bob, W9DMK, Dahlgren, VA
http://www.qsl.net/w9dmk

# 2758. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-27 21:43:14 UTC
From: w9dmk@crosslink.net
Message-ID: <41a8f24e.33468134@news.crosslink.net>
Source record: 86154

On Fri, 26 Nov 2004 10:57:25 -0700, Wes Stewart <n7ws_@_yahoo.com>
wrote:

>Yes. But the ITT Reference Data For Radio Engineers uses this paper
>as a reference.
>
>If you have Mathcad, a sheet that implements some of the equations was
>included as a reference in my Balanced Transmission line paper.
>
>http://users.triconet.org/wesandlinda/LineCalc.mcd

Dear Wes,

I was happy to find that the MacAlpine paper is the first part of
Chapter 22 of the ITT Handbook, as the latter is much more readable.

I did not pick up on the MathCad files, because I do not have MathCd -
however, the material from MacAlpine and Ricardi have answered most of
my concerns.

>|I hope that MacAlpine agrees with what Dave and Richard are telling
>|me, because their responses seem to be correct and are exactly what I
>|was afraid of - that I've been sucked into another example of the
>|strange terminology used to describe "losses".
>|
>|I have always thought of "loss" as a conversion to another form of
>|energy (typically heat energy) which is lost from the system.
>|Apparently, the kind of "loss" being described in the example that I
>|gave is not a loss at all.

I was premature in those two paragraphs, above. I can see now that the
Additional Losses Due to SWR really are dissipative and are unrelated
to the "Mismatch Losses" and "Transducer Losses" defined on page 22-12
of the ITT Handbook, 5th Ed.

>Yes it is. A simple-minded way of looking at it is if the SWR is
>greater than unity then increased current is flowing in the line. The
>line has resistive loss, so the I^2*R loss increases. The current
>isn't constant (there is a current standing ratio, ISWR, just like a
>VSWR) so there are peaks and valleys in the current and as you have
>figured out, the longer the line and the higher its nominal loss, the
>lower the ISWR is at the line input.

My interpretation of your "Yes it is." is that you mean that the
Additional Losses Due to SWR are truly heat losses and are due to the
ohmic losses in the hot spots of the line. Then we agree on that
point. Your paragraph above is much more succinct than the papers by

MacAlpine and Ricardi, but it certainly tells the story.

>So the loss per unit length is non-linear and varies with distance
>from the mismatch, but it is a real dissipative loss.

I don't know that I would have used the term "non-linear", but I would certainly agree that it varies along the line in accordance with the current loops.

>For those interested in the loss in the shorted or open stub case,
>maybe this will be of interest:
>http://users.triconet.org/wesandlinda/Stub_Matching_Loss.pdf

I took that pdf and added it to the collection. There were several things about that paper that filled-in gaps of detail in MacAlpine. However, neither paper gives us much hope for a simple model of these losses. Nonetheless, it makes hash out of the material in The ARRL Antenna Book. In all fairness, the Antenna Book cannot cover all aspects of these topics in detail. Unfortunately, the material in the Antenna Book is, in my opinion, very misleading in several specific areas, as follows:
- The Antenna Book gives only one expression for Total Line Loss (combining ML loss and the Additional Loss Due to SWR). If we accept Macalpine's model, there are different relationships for the range of SWR from 0 to 6 and for the range from 6 upwards.
- Antenna Book does not explain that the hot spots are very localized and that the additional losses can be quite dependant upon the length of the line in wavelengths. For example, the losses in a segment of line less than 1/3 wavelength might be insignificant in comparison with a segment of line greater than 1/3 wavelength simply because the shorter segment may not contain a hot spot. In other words, one cannot apply the Antenna Book equations, blindly, because of several factors that are not even mentioned, and for short line segments it is quite possible that there would be no signicant losses due to SWR.
- The most misleading information in The Antenna Book is on pages 24-11 and 24-12 where it is shown that a 100 foot RG-213 feedline will suffer 25 dB of Additional Loss Due to SWR at 1.83 MHz because of the very short antenna. I believe that when the equations from the ITT Handbook are used instead, that the actual losses will be far, far less.

Just today, I made a careful measurement on an RG-8/U line of 5.33 meters length at 30 MHz and terminated with a 4700 + j 0 load. The Matched Line Loss of that line at 30 MHz is 0.9 dB per 100 feet, and its Velocity Factor is between 0.75 and 0.80 The input impedance was actually measured at 2.45 -j15 ohms for an SWR at the input of 22.25. The SWR at the load end was 94. Those two SWR's establish a total loss on the line of 0.15 dB. If one were to blindly apply the formula in The Antenna Book on page 24-9, the result obtained would be 4.323 dB.

Bob, W9DMK, Dahlgren, VA
http://www.qsl.net/w9dmk

# 2759. Re: Zo and Ro

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-27 21:58:31 UTC
From: w9dmk@crosslink.net
Message-ID: <41a8f851.35007027@news.crosslink.net>
Source record: 86156

On Fri, 26 Nov 2004 22:05:13 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>Bob, your program can probably calculate the input impedance, Rin + j*Xin,
>of a line having Zo = Ro + j*Xo, with given attenuation Alpha dB, and given
>phase-shift Beta radians, with a terminating impedance Rt + j*Xt.
>
>Which is a commonly needed quantity on the way to calculating the ultimate,
>all-important, single number, transmission efficiency.
>
>But can you do it with nothing at hand except a Smith Chart?

And the answer is...

an unequivocal NO.

However, just to satisfy my curiousity, exactly which of your
beautiful, zipped up Pascal programs will do that for me?
Bob, W9DMK, Dahlgren, VA
http://www.qsl.net/w9dmk

# 2760. Re: Dumb Question Dept. - Antenna Angle

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-27 22:04:53 UTC
From: James <None@NOSPAM.com>
Message-ID: <41A8FA05.3060505@NOSPAM.com>
Source record: 86159

Zachary Taylor wrote:

> I have a sloper that is 73 feet long.
> The high end is 34 feet high, and the low end is 8 feet high.
> What angle is the antenna?
>
> It's a shame I can't figure out something I should have learned
> in the 6th grade; but I don't know how to set the problem up.
>
> Thanks,
> Zack

Easy answer. Do a web search for Trigonometry angle solver and you'll discover that quite a few people have written little web sites where you can enter in side-side-side lengths or side-angle-side and the remaining angles and side lengths will be caluclated automatically.

I've used them. Don't feel bad, most of us have long forgotten trigonometry.

Jimmy

# 2761. Re: Dumb Question Dept. - Antenna Angle

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-27 22:08:48 UTC
From: "Dee D. Flint" <deeflint01@comcast.net>
Message-ID: <ha-dnQpfpLJpZzXcRVn-uw@comcast.com>
Source record: 86157

"Zachary Taylor" <zach56@bellsouth.net> wrote in message
news:0bshq0tm71lg6e1d9dvuf6g0s4s9cnl20d@4ax.com...
> I have a sloper that is 73 feet long.
> The high end is 34 feet high, and the low end is 8 feet high.
> What angle is the antenna?
>
> It's a shame I can't figure out something I should have learned
> in the 6th grade; but I don't know how to set the problem up.
>
> Thanks,
> Zack

Rise = 34-8 feet = 26 feet
hypotenuse = 73 feet

angle = arcsin of rise/hypotenuse = arcsin (28/73) = approximately 20.9ï¿½
between the ground and the wire.

The angle between a vertical support at the apex and the wire is then
90ï¿½-20.9ï¿½ or 69.1ï¿½

# 2762. Re: Dumb Question Dept. - Antenna Angle

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-27 22:10:34 UTC
From: "H. Adam Stevens, NQ5H" <NQ5H@ARRL.net>
Message-ID: <10qhuqpromor5d8@corp.supernews.com>
Source record: 86158

"Zachary Taylor" <zach56@bellsouth.net> wrote in message
news:0bshq0tm71lg6e1d9dvuf6g0s4s9cnl20d@4ax.com...
>I have a sloper that is 73 feet long.
> The high end is 34 feet high, and the low end is 8 feet high.
> What angle is the antenna?
>
> It's a shame I can't figure out something I should have learned
> in the 6th grade; but I don't know how to set the problem up.
>
> Thanks,
> Zack

arcsin(26/73)=20.86482
degrees

73, H.

# 2763. Re: Dumb Question Dept. - Antenna Angle

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-27 22:21:19 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10qhvf3dkbs9s7b@corp.supernews.com>
Source record: 86160

Make a right triangle, with the sloper as the hypotenuse. One apex of the triangle is the higher sloper wire end. Go straight downward from there 34 - 8 = 26 feet to form the second side of the triangle. Then go from there straight horizontally to the lower sloper wire end to form the third side. The following isn't to scale, but it should give you the idea. View it with your browser set to a fixed, not porportional, font:

```
/
/ |
sloper / |
73' / | 26'
/ |
/ |
/__A_____________|
```

The answer to your question requires basic trigonometry, usually taught in high school in the U.S., so 6th grade math won't quite cut it. Of course, you could draw it to scale on a piece of paper and use a protractor to determine the angle, and that would be adequately accurate for most purposes.

Angle A is the angle the sloper is tilted upward or downward from horizontal. The sine of an angle in a right triangle = the length of the side opposite the angle divided by the length of the hypotenuse, which for angle A is 26/73. So we know that the sine of A = 26/73 = 0.356. In this day and age, the way to find the angle once we know its sine is to use a (scientific) pocket calculator. The function we want is "arcsin", "ASIN", "inverse sine", or "SIN^-1", all of which mean "the angle whose sine has this value". I notice that the calculator which comes with my XP operating system (in the Accessories folder) has this function. If you have one in your operating system, first make sure the "Degrees" selection is made in the upper right (assuming you want the answer in degrees). Then enter .356 into the calculator, check the Inv box (so you'll get the inverse sine), and finally click the "sin" button. The answer, with a ridiculous number of digits, is about 21 degrees.

You don't have to take a course in trig to learn and use the basic functions sine, cosine, and tangent, which are just ratios of the various sides of right triangles. (The cosine is the length of the adjacent side divided by the length of the hypotenuse, and the tangent is the length of the opposite side divided by the length of the adjacent side.) With that knowledge and an inexpensive (or free) calculator, you can easily solve problems like this.

Roy Lewallen

Zachary Taylor wrote:
> I have a sloper that is 73 feet long.
> The high end is 34 feet high, and the low end is 8 feet high.
> What angle is the antenna?
>
> It's a shame I can't figure out something I should have learned
> in the 6th grade; but I don't know how to set the problem up.
>
> Thanks,
> Zack

# 2764. Re: Dumb Question Dept. - Antenna Angle

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-27 22:22:20 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <7duhq0lhlvng2kobpe0eu85je0674v7h8o@4ax.com>
Source record: 86161

On Sat, 27 Nov 2004 21:34:41 GMT, Zachary Taylor
<zach56@bellsouth.net> wrote:

>I have a sloper that is 73 feet long.
>The high end is 34 feet high, and the low end is 8 feet high.
>What angle is the antenna?
>
>It's a shame I can't figure out something I should have learned
>in the 6th grade; but I don't know how to set the problem up.
>
>Thanks,
> Zack

Hi Zack,

Well, not 6th grade material, but for my students in the Navy (and I
sure didn't invent this memory aid):

For the conventional usage
S sine C cosine T tangent O opposite A adjacent H hypotenuse
where you choose one corner or angle (but not the right angle) of any
right triangle and the terms mean:
O the length of the side Opposite that angle
A the length of the side Adjacent to the angle
H the length of the Hypotenuse

O
S = ----
H

A
C = ----
H

O
T = ----
A

What kept it in memory. Reading down columns gives
S C T O H A H O A
or
Sally Could Tell Oscar/Had A/Hard On/Always

You know the Opposite (26) and the Hypotenuse (73) which would give
you the sine (0.3562), take the arcsin of this value to find the angle
(21ï¿½).

73's
Richard Clark, KB7QHC

# 2765. Re: Dumb Question Dept. - Antenna Angle

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-27 22:48:30 UTC
From: John Smith <kd5yikes@mindspring.com>
Message-ID: <cob07r024if@enews2.newsguy.com>
Source record: 86164

"Zachary Taylor" <zach56@bellsouth.net> wrote in message
news:0bshq0tm71lg6e1d9dvuf6g0s4s9cnl20d@4ax.com...
>I have a sloper that is 73 feet long.
> The high end is 34 feet high, and the low end is 8 feet high.
> What angle is the antenna?
>
> It's a shame I can't figure out something I should have learned
> in the 6th grade; but I don't know how to set the problem up.
>
> Thanks,
> Zack

About 21 degrees. For calculation purposes, mentally move the antenna down 8 feet. So you now have a triangle with altitude of 26 feet and a hypotenuse of 73 feet. The sine of the angle you want is 26/73 or .3562. The cosine of .3562 is 20.86 degrees.

If you don't frequently use what you have learned, it evaporates. I know exactly how you feel.

73,
John - KD5YI

# 2766. Re: Dumb Question Dept. - Antenna Angle

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-27 23:02:06 UTC
From: Zachary Taylor <zach56@bellsouth.net>
Message-ID: <1c1iq0hlenbs8k9tspq3a35q6ebt2ph61b@4ax.com>
Source record: 86162

>On Sat, 27 Nov 2004 21:34:41 GMT, Zachary Taylor <zach56@bellsouth.net> wrote:

[snip]

I'd like to thank everyone for the good (and quick!) answers.

This is a great group.

P.S. I just looked up someone I heard on the CW contest. Check out
his little antenna farm:
http://andor.net/ve6jy/ve6jy-siteinfo.html

And don't miss his little 80 meter yagi; it only weighs 1,200 pounds,
and yes, it rotates:
http://andor.net/ve6jy/ve6jy-80m.html

I'm glad envy can't kill, or we'd all be dead men

Zack

# 2767. Re: Dumb Question Dept. - Antenna Angle

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-27 23:04:49 UTC
From: SideBand <AINO8SPAMW@cac.net>
Message-ID: <lK7qd.360$nE7.139@newssvr17.news.prodigy.com>
Source record: 86163

Zachary Taylor wrote:
> I have a sloper that is 73 feet long.
> The high end is 34 feet high, and the low end is 8 feet high.
> What angle is the antenna?
>
> It's a shame I can't figure out something I should have learned
> in the 6th grade; but I don't know how to set the problem up.
>
> Thanks,
> Zack

SOH CAH TOA

Sin = Opposite over Hypotenuse
Cos = Adjacent over Hypotenuse
Tan = Opposite over Adjacent

34-8=26

So the Opposite is 26
the Hypotenuse is 73
Sin(theta) = 26/73 = 0.35616438356164383561643835616438

So Theta = ArcSin(0.35616438356164383561643835616438) =
20.864823641018812055586761532415 degrees

Or somewhere close to 21 degrees, if you're into rounding.

HTH

de AI8W, Chris

# 2768. Re: S-meters (copied from the Homebrew newsgroup)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-27 23:39:06 UTC
From: Old Ed <eXseniorsDeleteThisAndTheX@earthlink.net>
Message-ID: <ue8qd.1903$u81.388@newsread3.news.pas.earthlink.net>
Source record: 86165

Hello All -

This reads like a tongue-in-cheek bit of good-natured trolling... but I have added a few comments, just in case some newbie takes it all too seriously.

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message news:coafls$slt$1@sparta.btinternet.com...
>
> S-meters are nothing else but power (input) meters.
>
Actually, the tradition has been to characterize S-meter calibration (if I may call it that) in terms of voltage, not power. Of course, the two may be translated freely if one assumes an input impedance.

More significantly, the typical signal-strength indicators on receivers are not ANY kind of "meters"--in the sense of comprising calibrated test equipment. A minority of higher-end receivers MAY receive a quick stab at meter calibration in the alignment process; and they MAY have flat enough gain versus frequency for that calibration to apply roughly across their frequency coverage. But I wouldn't count on it.

> Amateurs and meter manufacturers long ago learned, that when giving signal
> strength reports, it is more convenient to refer to meter indications in
> terms of S-units rather than micro-watts or nano-watts.
>
Amen to that.

> At HF, when the meter reads S-9 the power entering the receiver is 50
> pico-watts. There's a slight complication above S-9 when the meter scale
> changes to decibels above S-9.
>
The "at HF" qualifier is curious, since the propositions are not frequency dependent. But 50 pW does indeed match up to the traditional 50 uV, if I did my math right.

> When the reading is S-9 plus 40 dB the meter is actually indicating about
> S-16. It's just a matter of scale graduations and printing.
>
A very important omission here is the traditional assumption that each S-unit should represent a 6 dB change. My FT-1000D shows substantial departures from this ideal, BTW.

But since the S-unit scale is an attempt to quantify the S1 through S9 range of the classic RST signal reporting scheme, there is no such thing as "S units" above S9, the highest. Hence the "dB over" nomenclature.

> The S-meter does NOT measure or even indicate field strength. It
> indicates nothing except that an increase in meter reading corresponds
> to an increase in field strength. Which may be nice to know but by
> how much of an increase is anybody's guess.
>
This is more realistic, although nits could be picked.

> Measured field strength depends on the type of antenna, its efficiency,
> ground losses, etc. It is possible, of course, to calculate field
> strength in the vicinity of the antenna from S-meter readings provided
> the antenna, its directivity, transmission line, tuner and ground
> characteristics are all known numerically. Which in the amateur
> situation they are seldom not! Or even in the professional situation.
>
> You've all got one. To repeat - the S-meter is a power (input) meter.

S-meters are relative signal strength indicators. Some of them MAY match
the "ideal" response at a few input levels and input frequencies.

> ----
> Reg, G4FGQ
>
>

# 2769. Re: S-meters (copied from the Homebrew newsgroup)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-28 00:48:21 UTC
From: Bob Bob <bcnntp@optusnet.com.au>
Message-ID: <mrjn72-go6.ln1@p400bob.lse.com.au>
Source record: 86166

So I cant resist

We had a similar discussion on the VK-VHF NG (a closed NG). The general consensus for VHF/UHF SSB use as summarized by Gordon VK2ZAB was;
---
The scale is:
S9 = -93 dbm = 5 uV into 50 ohms.
S8 = -99 dbm = 2.5 uV
S7 = -105 dbm = 1.25 uV
S6 = -111 dbm = 0.625 uV
S5 = -117 dbm = 0.313 uV
S4 = -123 dbm = 0.156 uV
S3 = -129 dbm = 0.078 uV
S2 = -135 dbm = 0.039 uV
S1 = -141 dbm = 0.02 uV - Note that this fortuitously corresponds to the level, on Earth, of the power due to thermal noise in a bandwidth of 2000 Hz.
And if you like:
S0 = -147 dbm = 0.01 uV
S-1 = -153 dbm = 0.005 uv
S-2 = -159 dbm
S-3 = -165 dbm
S-4 = -171 dbm
S-4.5 = - 174 dbm Note that this fortuitously corresponds to the level, on Earth, of the noise power due to thermal noise in a bandwidth of 1Hz.
Those that wish to do so may exercise their arithmetic skills by determining what S point and /or dbm level corresponds to the noise power at say one [1] degree above absolute zero - which may exist somewhere in space.
---

Note that there was a lot more discussion about the use/misuse of S meter reports. I thought the scale the more useful though.

Cheers Bob VK2YQA

Old Ed wrote:
> Hello All -
>
> This reads like a tongue-in-cheek bit of good-natured trolling... but I have
> added a few comments, just in case some newbie takes it all too seriously.
>
> "Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
> news:coafls$slt$1@sparta.btinternet.com...
>

..... etc

# 2770. Re: Dumb Question Dept. - Antenna Angle

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-28 01:19:15 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10qi9so3lafq9fd@corp.supernews.com>
Source record: 86167

John Smith wrote:
>
> About 21 degrees. For calculation purposes, mentally move the antenna down 8
> feet. So you now have a triangle with altitude of 26 feet and a hypotenuse
> of 73 feet. The sine of the angle you want is 26/73 or .3562. The cosine of
> .3562 is 20.86 degrees.
>
> If you don't frequently use what you have learned, it evaporates. . .

True enough -- "cosine" above should be "arcsin". The arcsin of a number is the inverse sine, or the angle whose sine is the number. Cosine is a different trigonometric function, defined by a ratio of different sides than the sine.

Roy Lewallen, W7EL

# 2771. Re: Zo and Ro

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-28 02:03:57 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cobbmd$g5h$1@sparta.btinternet.com>
Source record: 86168

> >Bob, your program can probably calculate the input impedance, Rin + j*Xin,
> >of a line having Zo = Ro + j*Xo, with given attenuation Alpha dB, and given
> >phase-shift Beta radians, with a terminating impedance Rt + j*Xt.
> >
> >Which is a commonly needed quantity on the way to calculating the ultimate,
> >all-important, single number, transmission efficiency.

==========

Bob asked -
> However, just to satisfy my curiousity, exactly which of your
> beautiful, zipped up Pascal programs will do that for me?

==========
Bob,

I thought nobody would ever ask. But they've been available from my website for years.

Look at Programs -

RJELINE2
RJELINE3
RJELINE4
COAXPAIR
COAXRATE

and give yourself a few practical examples.

There is a one-line description after each program's name on the download page in my website.

The above programs are dedicated to transmission lines. Input data includes one or two physical dimensions which avoids restriction to particular type-of-line numbers. Users are given a free hand to design cables to their own specifications. Nevertheless, they are practical in nature and simple to use. There are other programs which incorporate the same calculations but which are not explicitly apparent to the user.

They use exact classical transmission line formulae and so are as accurate as the input data over the stated frequency ranges. Usually from power frequencies up to UHF. They take skin effect and the increase in inductance at low frequencies and other subtle factors such as conductor proximity effect in twin-lines in their stride.

They are good enough for the highest precision engineering applications. I have not disclosed the source code to prevent it falling into the hands of argumentative vandals, so-called guru's, and technically ignorant old-wives who would ruin the programs' reputation, not forgetting mine, for RELIABILITY. Reliability is Quality versus Time.

For references I quote my only tutors - Ohm, Ampere and Volta.

When considering transmission lines you can check your's and other programs against mine for accuracy with confidence. You will discover the effects of both your known and other, unsuspected approximations.

Readers should bear in mind I'm not getting paid for this.

Bob, I'm on MontGras, Chilean, Reserve Merlot, tonight. Nuff said.
---
.....
Regards from Reg, G4FGQ
For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp
.....

# 2772. Re: Zo and Ro

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-28 02:52:16 UTC
From: w9dmk@crosslink.net
Message-ID: <41a93cf6.52579996@news.crosslink.net>
Source record: 86169

On Sun, 28 Nov 2004 02:03:57 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>Bob, I'm on MontGras, Chilean, Reserve Merlot, tonight. Nuff said.

There's nothing that can top vintage Reg.
Tnx, I'll visit the site and pick up my free samples.

Tschuss!
Bob, W9DMK, Dahlgren, VA
http://www.qsl.net/w9dmk

# 2773. Re: S-meters (copied from the Homebrew newsgroup)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-28 03:10:20 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <Unbqd.4490$KO5.3803@fed1read02>
Source record: 86171

"Frank" <ve6cb@NOSPAM.telus.net> wrote in message
news:wN4qd.217617$9b.158132@edtnps84...
>I think S meters should be calibrated in dB uV/m, or at least dBm input.
>
> Frank

You cannot do that. Even on a good meter (like a spectrum analyzer or an EMI receiver), the meter is calibrated only for input power at its front panel connector. You still have to add a frequency dependent correction factor for cable loss and antenna efficiency. Very expensive measurement systems operate under computer control, with a calibrated analyzer and the computer adding the appropriate factors for cable loss and antenna factor. (This allows for flexibility; a different coax or antenna can be substituted at any time, so long as the computer has a table of factors for the new device.)

As for how you mark the S-meter scale, I agree that we use an archaic system with S-units. It would be more rational to use a simple dB scale referenced to something like 1 picowatt (which would then become 0 dBpW). OTOH, the purpose of an S-meter is not to provide absolute measurements. It is used as a tuning indicator and for relative signal strength comparisons. And the archaic marking system works fine for that need.

Ed
wb6wsn

# 2774. Re: S-meters (copied from the Homebrew newsgroup)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-28 03:14:01 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <Vnbqd.4491$KO5.2116@fed1read02>
Source record: 86170

"Old Ed" <eXseniorsDeleteThisAndTheX@earthlink.net> wrote in message
news:ue8qd.1903$u81.388@newsread3.news.pas.earthlink.net...
> Hello All -
>
> This reads like a tongue-in-cheek bit of good-natured trolling... but I
> have
> added a few comments, just in case some newbie takes it all too seriously.
>
> "Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
> news:coafls$slt$1@sparta.btinternet.com...
>>
>> S-meters are nothing else but power (input) meters.
>>
> Actually, the tradition has been to characterize S-meter calibration
> (if I may call it that) in terms of voltage, not power. Of course, the
> two may be translated freely if one assumes an input impedance.
>
> More significantly, the typical signal-strength indicators on receivers
> are not ANY kind of "meters"--in the sense of comprising calibrated
> test equipment. A minority of higher-end receivers MAY receive a
> quick stab at meter calibration in the alignment process; and they MAY
> have flat enough gain versus frequency for that calibration to apply
> roughly across their frequency coverage. But I wouldn't count on it.
>
>> Amateurs and meter manufacturers long ago learned, that when giving
>> signal
>> strength reports, it is more convenient to refer to meter indications in
>> terms of S-units rather than micro-watts or nano-watts.

Hams can use S-units, but I really prefer antenna manufacturers to stick
closer to physics and give me real gain in dB or numeric.

Ed
wb6wsn

# 2775. Re: Dumb Question Dept. - Antenna Angle

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-28 03:30:44 UTC
From: John Smith <kd5yikes@mindspring.com>
Message-ID: <cobgp1015mp@enews3.newsguy.com>
Source record: 86072

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:10qi9so3lafq9fd@corp.supernews.com...
>
> John Smith wrote:
>>
>> About 21 degrees. For calculation purposes, mentally move the antenna
>> down 8 feet. So you now have a triangle with altitude of 26 feet and a
>> hypotenuse of 73 feet. The sine of the angle you want is 26/73 or .3562.
>> The cosine of .3562 is 20.86 degrees.
>>
>> If you don't frequently use what you have learned, it evaporates. . .
>
> True enough -- "cosine" above should be "arcsin". The arcsin of a number
> is the inverse sine, or the angle whose sine is the number. Cosine is a
> different trigonometric function, defined by a ratio of different sides
> than the sine.
>
> Roy Lewallen, W7EL

I _knew_ I would screw it up! Thanks, Roy.

John

# 2776. Re: S-meters (copied from the Homebrew newsgroup)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-28 03:53:04 UTC
From: Old Ed <eXseniorsDeleteThisAndTheX@earthlink.net>
Message-ID: <AYbqd.5316$NU3.3572@newsread1.news.pas.earthlink.net>
Source record: 86073

Hi Other Ed -

I have to agree that S-units have little or no role in specifying antennas.

Ed

"Ed Price" <edprice@cox.net> wrote in message
news:Vnbqd.4491$KO5.2116@fed1read02...
>
> Hams can use S-units, but I really prefer antenna manufacturers to stick
> closer to physics and give me real gain in dB or numeric.
>
> Ed
> wb6wsn
>

# 2777. Re: S-meters (copied from the Homebrew newsgroup)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-28 03:53:05 UTC
From: Old Ed <eXseniorsDeleteThisAndTheX@earthlink.net>
Message-ID: <BYbqd.5317$NU3.2754@newsread1.news.pas.earthlink.net>
Source record: 86074

Hi Bob -

Thanks for your input!

I can understand the basic idea of a VHF/UHF offset for the "S-scale,"
based on the much lower ambient noise levels in that frequency range.
Twenty dB seems like a pretty large offset, though--but who am I to tell
the VK-VHF crowd how to do their "S-scale?" ;-)

Roger on your themal noise estimate. It's been a few years, but I recall
using -114 dBm/MHz as the thermal noise level back in my radar design
days. That would track with your figure. But S1 for you is 0 dB SNR
with a 0 dB NF? Wow, you VKs must have good ears!

73, Ed, W6LOL

"Bob Bob" <bcnntp@optusnet.com.au> wrote in message
news:mrjn72-go6.ln1@p400bob.lse.com.au...
> So I cant resist
>
> We had a similar discussion on the VK-VHF NG (a closed NG). The general
> consensus for VHF/UHF SSB use as summarized by Gordon VK2ZAB was;
> --------------
> The scale is:
> S9 = -93 dbm = 5 uV into 50 ohms.
> S8 = -99 dbm = 2.5 uV
> S7 = -105 dbm = 1.25 uV
> S6 = -111 dbm = 0.625 uV
> S5 = -117 dbm = 0.313 uV
> S4 = -123 dbm = 0.156 uV
> S3 = -129 dbm = 0.078 uV
> S2 = -135 dbm = 0.039 uV
> S1 = -141 dbm = 0.02 uV - Note that this fortuitously corresponds to the
> level, on Earth, of the power due to thermal noise in a bandwidth of
> 2000 Hz.
> And if you like:
> S0 = -147 dbm = 0.01 uV
> S-1 = -153 dbm = 0.005 uv
> S-2 = -159 dbm
> S-3 = -165 dbm
> S-4 = -171 dbm
> S-4.5 = - 174 dbm Note that this fortuitously corresponds to the level,
> on Earth, of the noise power due to thermal noise in a bandwidth of 1Hz.
> Those that wish to do so may exercise their arithmetic skills by
> determining what S point and /or dbm level corresponds to the noise
> power at say one [1] degree above absolute zero - which may exist

> somewhere in space.
> -------------
>
> Note that there was a lot more discussion about the use/misuse of S
> meter reports. I thought the scale the more useful though.
>
> Cheers Bob VK2YQA
>
>
>
> Old Ed wrote:
> > Hello All -
> >
> > This reads like a tongue-in-cheek bit of good-natured trolling... but I
have
> > added a few comments, just in case some newbie takes it all too
seriously.
> >
> > "Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
> > news:coafls$slt$1@sparta.btinternet.com...
> >
> ..... etc

# 2778. Re: S-meters (copied from the Homebrew newsgroup)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-28 03:56:49 UTC
From: Frank <ve6cb@NOSPAM.telus.net>
Message-ID: <50cqd.195361$df2.91514@edtnps89>
Source record: 86075

"Ed Price" <edprice@cox.net> wrote in message
news:Unbqd.4490$KO5.3803@fed1read02...
>
> "Frank" <ve6cb@NOSPAM.telus.net> wrote in message
> news:wN4qd.217617$9b.158132@edtnps84...
>>I think S meters should be calibrated in dB uV/m, or at least dBm input.
>>
>> Frank
>
>
> You cannot do that. Even on a good meter (like a spectrum analyzer or an
> EMI receiver), the meter is calibrated only for input power at its front
> panel connector. You still have to add a frequency dependent correction
> factor for cable loss and antenna efficiency. Very expensive measurement
> systems operate under computer control, with a calibrated analyzer and the
> computer adding the appropriate factors for cable loss and antenna factor.
> (This allows for flexibility; a different coax or antenna can be
> substituted at any time, so long as the computer has a table of factors
> for the new device.)
>
> As for how you mark the S-meter scale, I agree that we use an archaic
> system with S-units. It would be more rational to use a simple dB scale
> referenced to something like 1 picowatt (which would then become 0 dBpW).
> OTOH, the purpose of an S-meter is not to provide absolute measurements.
> It is used as a tuning indicator and for relative signal strength
> comparisons. And the archaic marking system works fine for that need.
>
> Ed
> wb6wsn
>

Yes, I agree with your comments, and am familiar with EMC and ATR
measurement techniques. Mentioning dBuV/m was a bit tongue in cheek, but
just the same if you could add the antenna factor etc. it would be nice to
give accurate reports of field strength. Still dBm (or dBpW) is certainly
no big deal. Even if not laboratory accurate, it still means so much more
that the S signal strength scale.

Frank

# 2779. Inverted V Noise Problem

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-28 06:20:56 UTC
From: Warren Bowery <kc8ykq@arrl.net>
Message-ID: <Xns95AFDB0EA6C2wbowerybrightnet@216.196.97.142>
Source record: 86076

Hello, all....

My first HF antenna (still in use) is an inverted V cut for 40 meters. This very quiet antenna is constructed suspended from three trees in front of my home - the tree in the middle supports the apex while two somewhat evenly spaced trees support the ends. The center of the antenna is approximately 30' above the ground, and the angle of the V is about 120 degrees. The antenna is constructed of #14 stranded jacketed wire fed with 450 ohm window line. This antenna has worked quite well for me on 10-40 meters using a transmatch.

Several months ago, I tried to raise the antenna's center to around 40'in order to improve performance. I also raised the antenna's ends proportionately. My transceiver's noise level increased dramatically. I then tried a "flat top" dipole configuration without any lessening of the noise. When I returned my antenna to its original configuration, all was quiet again. To me, the noise sounded electrical in nature.

There is a power line feeding a street lamp about 25' away and perpendicular to the original dipole. The street lamp power line is about 35' high. Power lines to all of the homes in our neighborhood are buried except for the home adjoining our back lot. The power company strung a conventional pole-to-house feed to their home. The feed to the street light also runs from this pole.

I am planning on stringing an 80 meter dipole in our back yard. This new antenna would be constructed of the same components, and parallel to my original wire antenna. The apex would be strung between trees with the middle about 40' above the ground. However, I am leery of doing this project considering the noise problem experienced when I raised my original antenna. I would like to add a 80/75 meter antenna however.

Is my problem related to a noisy power line feeding the street light, or is it be something else?

Thanks in advance for your suggestions!

Warren - KC8YKQ

# 2780. Re: Inverted V Noise Problem

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-28 06:38:25 UTC
From: Lee Hopper <leehopp@centurytel.net>
Message-ID: <41A97261.1070607@centurytel.net>
Source record: 86077

Warren Bowery wrote:
> ... My transceiver's noise level increased dramatically...
> Warren - KC8YKQ

Warren -

To solve this kind of problem in the real world, you need to eliminate things one by one.

With the antenna back up in the noise, see what happens when the street light comes on at dusk - is this when the noise starts? Or is the noise there before the light turns on?

If it's there without the light, some device in your neighbor's house may be sending the noise back up the power line. Thermostats, fishtank heaters, yard lights - the variety of noise sources is impressive.

Could also be loose or rusted connections on the pole/transformer.

You might be able to trace the source with a pocket transistor radio tuned between stations.

ARRL has some good stuff on interference - have you checked their website?

Would like to hear other opinions on this one - I'm still learning.

73 -

Lee H, NB7F

# 2781. Re: Inverted V Noise Problem

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-28 11:27:08 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <coccmc$41u$1@hercules.btinternet.com>
Source record: 86078

Warren,

You may not have a problem.

The signals level MUST also have increased with the increase in height.

Did the signals go up together with the noise, the signal-to-noise ratio
remaining unchanged?
----
Reg

# 2782. Re: Inverted V Noise Problem

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-28 12:47:45 UTC
From: Warren Bowery <kc8ykq@arrl.net>
Message-ID: <Xns95AF4F4589584wbowerybrightnet@216.196.97.142>
Source record: 86079

Reg - any increase in signals certainly did not increase enough to overcome
the noise. Like I mentioned, the original configuration I is very quiet.
In fact, the noise level went from not registering on the meter at all at
the lower height to an S9+ when I raised the antenna.

Warren

Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in
news:coccmc$41u$1@hercules.btinternet.com:

> Warren,
>
> You may not have a problem.
>
> The signals level MUST also have increased with the increase in height.
>
> Did the signals go up together with the noise, the signal-to-noise ratio
> remaining unchanged?
> ----
> Reg
>
>
>

# 2783. Re: surveillance receiver aerial

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-28 14:20:12 UTC
From: zentace63@yahoo.co.uk
Message-ID: <a406d859.0411280620.14771dd@posting.google.com>
Source record: 86080

Gidday Bob

Thanks very much for replying to my questions.
I take it then, that if you connect a screened cable between the aerial and the receiver, the length of the cable itself does not act as an aerial because the screening prevents this?
So if the aerial is only one "core" where do I connect the screen? I know I could connect it at the aerial end to the car body (earth) but what about at the receiver end? Does it have to connect at all at that end as long as the screen is connected to the car body?
By the way, the car itself will be stationary and switched off so hopefully I won't have the problem of interference from the car electrics.
Also the transmitter is apparently fixed frequency 100-125MHz and the receiver switched to this.
I'll experiment and see!
Let me know if you have any thoughts about the screen.

Thanks again

Iain (Scotland)

Bob Bob <bcnntp@optusnet.com.au> wrote in message news:<8jod72-aoe.ln1@p400bob.lse.com.au>...
> Gidday
>
> I would suspect that the recorder unit you have is not really intended
> to take a remote antenna.
>
> Generally speaking an aerial will be a single core. The core and screen
> thing you are thinking of is likely to be coaxial cable, what you could
> join a aerial to a receiver with. It isnt normally suppose to pickup or
> radiate signal.
>
> Connecting the existing wing mounted aerial *might* work but you may
> receive a lot of noise from car accessories/ignition etc. If your
> receiver had a coaxial connector on it things would be a lot easier!
>
> The length of the aerial is nominally a function of the operating
> frequency but I doubt the unit you have would be critical in that
> regard. It wont hurt to extend the aerial anyway you like. Try it!
> "Real" aerials connected to transmitters tend to require tuning to work
> efficiently, but since you dont know the parameters of the device you
> are connecting to it there isnt much point trying to work it out..
>

> Your biggest enemy of receiving a good signal will be if the aerial is
> inside the car metalwork.. If you cant stick it out the window then at
> least have it at glass level. You may find that mounting it on the sun
> visor would be a good position.
>
> Also note that mounting the transmitter and its aerial is also
> important. Try and not bury it in a metalwork and if possible put it
> next to a window.
>
> Apologies for not being much help.
>
> Cheers Bob VK2YQA (Sydney Australia)
>
> zentace wrote:
> > Hello
> >
> > Hope someone out there can help!
> > I've just started a private investigator business.
> > Part of the equipment I use is a recorder/receiver unit (basically a
> > sony tape machine with a receiver built on to it). The aerial appears
> > to be a black plastic coated, bendy single wire 16cm long with a small
> > 3mm (approx) screw thread on the end which screws into the receiver.
> > It appears to be single core, in that, the screw thread is a solid
> > piece (not like a two piece jack plug for example).
> >
> > I want to be able to connect an external car ariel to the receiver as
> > at present the receiver with the aerial screwed in is hidden inside
> > the car and the reception is very poor.
> >
> > Some questions:
> > Is the aerial single core? I naively thought all aerials had a core
> > and screen.
> >
> > Could I take a connection from the centre core of an existing wing
> > mounted car aerial and run a single wire to the receiver inside the
> > car?
> >
> > If I used this method would the external car aerial have to be 16cm,
> > same as the plastic aerial?
> >
> > Can these small 3mm screw threads on the end of the existing aerial be
> > bought from somewhere so I could connect my external aerial to the
> > receiver?
> >
> > I hope this all makes sense and I would be very grateful for any
> > advice.
> >
> > Thank you

# 2784. Re: Inverted V Noise Problem

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-28 14:53:57 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <9Elqd.411$nE7.182@newssvr17.news.prodigy.com>
Source record: 86081

"If it's there without the light, some device in your neighbor's house
may be sending the noise back up the power line. Thermostats, fishtank
heaters, yard lights - the variety of noise sources is impressive.
Could also be loose or rusted connections on the pole/transformer."

To the above, add the photocell on the street light. depending on how
it was designed, it could make noise waiting to turn 'on', or when 'on'.
'Doc

# 2785. Re: TX Distance question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-28 15:17:53 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <B_lqd.414$nE7.354@newssvr17.news.prodigy.com>
Source record: 86082
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.misc

Bill,
In most cases, anything you do on a boat is a compromise between what it 'ought to be' and what's possible. Since the backstay (or frontstay) is ~there~ anyway, why not use it? Certainly not the 'best' thing in the world (whatever that is), but 'better' than most alternative$.
Some people have a 'phobia' about tuners. If you don't want to use one, that's fine. They do make 'things' much easier and the difference in performance is 'acceptible' in most cases (acceptible being relative). Since there are alternatives, pick the one you think you can 'live' with and go with it. "You pays your money and takes your choice", as they used to say in the house with the red velvet wall paper...
'Doc

PS - Not that I've ever been in one of those houses, I've just read about them...

## 2786. Re: TX Distance question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-28 15:21:51 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <j2mqd.415$nE7.50@newssvr17.news.prodigy.com>
Source record: 86083
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.misc

Oops, sorry.

The idea is to make it as 'idiot' proof as possible. That does
not, and will never mean the 'best'...
- 'Doc

# 2787. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-28 15:38:28 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41a9eef1_4@127.0.0.1>
Source record: 86084

Robert Lay W9DMK wrote:
> Just today, I made a careful measurement on an RG-8/U line of 5.33
> meters length at 30 MHz and terminated with a 4700 + j 0 load. The
> Matched Line Loss of that line at 30 MHz is 0.9 dB per 100 feet, and
> its Velocity Factor is between 0.75 and 0.80 The input impedance was
> actually measured at 2.45 -j15 ohms for an SWR at the input of 22.25.
> The SWR at the load end was 94. Those two SWR's establish a total loss
> on the line of 0.15 dB. If one were to blindly apply the formula in
> The Antenna Book on page 24-9, the result obtained would be 4.323 dB.

For your 1/4WL open stub on 10.6 MHz, with a stub impedance of 0.57 ohms,
I calculate total losses of about 0.2 dB.
--
73, Cecil http://www.qsl.net/w5dxp

# 2788. Re: Inverted V Noise Problem

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-28 16:14:14 UTC
From: Bob Miller <rmiller47@satx.rr.com>
Message-ID: <p9ujq0h3rtj9nobl2a7gb4g5abh23c0t0m@4ax.com>
Source record: 86085

On Sun, 28 Nov 2004 00:20:56 -0600, Warren Bowery <kc8ykq@arrl.net>
wrote:

>Hello, all....
>
> My first HF antenna (still in use) is an inverted V cut for 40
>meters. This very quiet antenna is constructed suspended from three trees
>in front of my home - the tree in the middle supports the apex while two
>somewhat evenly spaced trees support the ends. The center of the antenna
>is approximately 30' above the ground, and the angle of the V is about 120
>degrees. The antenna is constructed of #14 stranded jacketed wire fed with
>450 ohm window line. This antenna has worked quite well for me on 10-40
>meters using a transmatch.
>
> Several months ago, I tried to raise the antenna's center to around
>40'in order to improve performance. I also raised the antenna's ends
>proportionately. My transceiver's noise level increased dramatically. I
>then tried a "flat top" dipole configuration without any lessening of the
>noise. When I returned my antenna to its original configuration, all was
>quiet again. To me, the noise sounded electrical in nature.
>
> There is a power line feeding a street lamp about 25' away and
>perpendicular to the original dipole. The street lamp power line is about
>35' high. Power lines to all of the homes in our neighborhood are buried
>except for the home adjoining our back lot. The power company strung a
>conventional pole-to-house feed to their home. The feed to the street light
>also runs from this pole.
>
> I am planning on stringing an 80 meter dipole in our back yard. This
>new antenna would be constructed of the same components, and parallel to my
>original wire antenna. The apex would be strung between trees with the
>middle about 40' above the ground. However, I am leery of doing this
>project considering the noise problem experienced when I raised my original
>antenna. I would like to add a 80/75 meter antenna however.
>
> Is my problem related to a noisy power line feeding the street light,
>or is it be something else?
>
> Thanks in advance for your suggestions!
>
>
>Warren - KC8YKQ

C.Crane Co. has a helpful page on receiving noise:

http://www.ccrane.com/radio-noise-problems.aspx

bob
k5qwg

# 2789. Re: Inverted V Noise Problem

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-28 16:20:22 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <k0ujq01o8eflar0c686nq7mboq2bkb0f0o@4ax.com>
Source record: 86086

On Sun, 28 Nov 2004 06:47:45 -0600, Warren Bowery <kc8ykq@arrl.net>
wrote:
>Reg - any increase in signals certainly did not increase enough to overcome
>the noise. Like I mentioned, the original configuration I is very quiet.
>In fact, the noise level went from not registering on the meter at all at
>the lower height to an S9+ when I raised the antenna.

Hi Warren,

Then it appears you upset the balance of the antenna (hard to believe
it was balanced before) such that common mode noise is finding its way
in.

It seems entirely unlikely that you achieved any more gain, nor more
highly resolved angular discrimination to now be focused on a source
of noise that has "always" been there.

The way I read your statements, it's as if you raised your antenna to
the equal horizon of a noise your antenna in its former position just
couldn't see. At HF and at those heights, this just isn't in the
cards. Signal intensity follows square law and for your noise to rise
from nothing to S-9 does not correspond to any dimensional change (or
if it does, there's your clue, but you are within inches of it now
where you were 10's of feet away formerly).

73's
Richard Clark, KB7QHC

# 2790. Re: Inverted V Noise Problem

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-28 17:15:40 UTC
From: - XC - <nobody@home.net>
Message-ID: <OPmdnVWNTJhcmjfcRVn-iw@comcast.com>
Source record: 86087

Sounds to me like its a not so simple case of more power line noise coupled into the antenna at it increased height, which at its new height is also closer to the height of the power line. But the comments about the large difference in noise observed and also the contradiction to the square law effect are interesting.

Maybe the question we should be pondering is NOT what the changes in the antenna pattern are, but what the antenna pattern of the *power line* at the observed freq is. These things are by nature antennas as well which also exhibit directivity and gain (I'm cringing at the thought of future BPL "dx"), but would probably be impossible to model since there are too many unknowns.

So my 2 cent theory is that the original antenna location lies in a power line noise pattern null (or no low angle) and at the new height it's now in a lobe.

John

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:k0ujq01o8eflar0c686nq7mboq2bkb0f0o@4ax.com...
> On Sun, 28 Nov 2004 06:47:45 -0600, Warren Bowery <kc8ykq@arrl.net>
> wrote:
> >Reg - any increase in signals certainly did not increase enough to
overcome
> >the noise. Like I mentioned, the original configuration I is very quiet.
> >In fact, the noise level went from not registering on the meter at all at
> >the lower height to an S9+ when I raised the antenna.
>
> Hi Warren,
>
> Then it appears you upset the balance of the antenna (hard to believe
> it was balanced before) such that common mode noise is finding its way
> in.
>
> It seems entirely unlikely that you achieved any more gain, nor more
> highly resolved angular discrimination to now be focused on a source
> of noise that has "always" been there.
>
> The way I read your statements, it's as if you raised your antenna to
> the equal horizon of a noise your antenna in its former position just
> couldn't see. At HF and at those heights, this just isn't in the
> cards. Signal intensity follows square law and for your noise to rise
> from nothing to S-9 does not correspond to any dimensional change (or
> if it does, there's your clue, but you are within inches of it now

> where you were 10's of feet away formerly).
>
> 73's
> Richard Clark, KB7QHC

# 2791. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-28 17:22:25 UTC
From: w9dmk@crosslink.net
Message-ID: <41aa06f6.14006920@news.crosslink.net>
Source record: 86088

On Sun, 28 Nov 2004 09:38:28 -0600, Cecil Moore <w5dxp@hotmail.com>
wrote:

>Robert Lay W9DMK wrote:
>> Just today, I made a careful measurement on an RG-8/U line of 5.33
>> meters length at 30 MHz and terminated with a 4700 + j 0 load. The
>> Matched Line Loss of that line at 30 MHz is 0.9 dB per 100 feet, and
>> its Velocity Factor is between 0.75 and 0.80 The input impedance was
>> actually measured at 2.45 -j15 ohms for an SWR at the input of 22.25.
>> The SWR at the load end was 94. Those two SWR's establish a total loss
>> on the line of 0.15 dB. If one were to blindly apply the formula in
>> The Antenna Book on page 24-9, the result obtained would be 4.323 dB.
>
>For your 1/4WL open stub on 10.6 MHz, with a stub impedance of 0.57 ohms,
>I calculate total losses of about 0.2 dB.
>--
>73, Cecil http://www.qsl.net/w5dxp

Dear Cecil,

I hope I'm not misinterpreting your values - I assume that you are
starting with a theoretical open circuit and a theoretical RG-8 line
and calculating a theoretical impedance seen looking into that line of
0.57 + j 0. From that you then calculate a theoretical 0.2 dB. When I
say calculate, I assume that you may instead by using a nomogram.
Anyway, based on all of that being the situation up to but not
including the loss figure, when I take the 0.57 + j0 and calculate the
SWR as 87.7 I get a loss more like .05 dB, theoretically, so I'm not
sure in what ways we are coming up with these numbers. I can explain
exactly how I got mine, which was via measurements followed by a
theoretical cacluation of loss based on the two SWR's formula which is
built into all Smith Charts.

Bob, W9DMK, Dahlgren, VA
http://www.qsl.net/w9dmk

# 2792. Re: Zo and Ro

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-28 18:01:17 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cod3pd$o0q$1@sparta.btinternet.com>
Source record: 86089

Who the heck are Ramo and Whinnery. Never heard of them! Presumably,
because you refer to them, they are or were people who make or made a living
out of re-iterating old wive's tales in book-form.

It was obvious I introduced G = C * R / L simply to show that a line's Zo
can be purely resistive even when it is NOT lossless. It can have any loss
you like.

Apparently you have not yet grasped the idea.

And, despite what R and W or YOU may have to say on the subject, it is an
exact expression at all frequencies from DC to almost infinity.

My only references are Ohm, Ampere and Volta who I'm sure you have heard of.

But no hard feelings. ;o)

Tonight I'm on Chilean, dry, 2004, MontGras, Reserve Chardonnay. I didn't
choose it myself. My loving daughter does my shopping. But it's quite a
pleasant, refreshing plonk.
----
Regards, Reg.

==========

"Cecil Moore" wrote
> Reg Edwards wrote:
> > The condition for which Zo of a transmission line is always purely
resistive
> > (Zo = Ro) is extremely simple. It is -
> >
> > G = C * R / L
>
> Wonder why Ramo and Whinnery say that's an approximation for low-loss
> lines? If the R+jwL angle is equal to the G+jwC angle, doesn't that
> make Z0 purely resistive?
> --
> 73, Cecil

# 2793. Re: Inverted V Noise Problem

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-28 18:03:16 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <fg3kq0pnatfdf4n8khcie5qg2n89161v7a@4ax.com>
Source record: 86090

On Sun, 28 Nov 2004 12:15:40 -0500, "- XC -" <nobody@home.net> wrote:

>So my 2 cent theory is that the original antenna location lies in a power
>line noise pattern null (or no low angle) and at the new height it's now in
>a lobe.

Hi John,

The simple wavelength mechanics of that negate the premise. For any structure, much less a power line, to exhibit a null due to a dipolar distribution; then that would have to arise from certain constraints. Chief among them is isolation from ground by a significant portion of one wavelength, in this power line case 5000000 meters.

However, the noise is not 60Hz. In the case of the actual frequency of the interference, it is equally unlikely to be emanating from the power lines - from the 60 Hz generation end. It would necessarily be emanating from a load that is using the line as an antenna (although, not purposely except in your nightmare of BPL).

In this case of higher frequency nuisance, the same powerlines would present an enormously long structure (unless the noise were snubbed at the nearest isolation transformer). that would create a huge number of lobes. And still, it is unlikely that any null to peak of those lobes would match the characteristic of no noise to S-9 variation. As such, the odds are on square-law ruled proximity. Where in quieter times past the noise was 10's of feet away, with change that noise got within inches. That, or the description of noise levels has been exaggerated.

A noise survey should be performed with a simple handheld transistor SW receiver. Walk around and listen. If push comes to shove, then tie a string to the receiver, turn up the volume and hoist it up. More can be determined by this than all the arm-chair prognosis.

73's
Richard Clark, KB7QHC

## 2794. Re: TX Distance question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-28 18:08:14 UTC
From: "H. Adam Stevens, NQ5H" <NQ5H@ARRL.net>
Message-ID: <10qk50kl5h6585f@corp.supernews.com>
Source record: 86091
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.misc

"'Doc" <w5lz@cwis.net> wrote in message
news:j2mqd.415$nE7.50@newssvr17.news.prodigy.com...
> Oops, sorry.
>
> The idea is to make it as 'idiot' proof as possible. That does
> not, and will never mean the 'best'...
> - 'Doc
>

Make something "idiot-proof" and Nature will just make a better idiot.

73 - H

# 2795. Re: Zo and Ro

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-28 18:22:48 UTC
From: "H. Adam Stevens, NQ5H" <NQ5H@ARRL.net>
Message-ID: <10qk5rqpfq5fp7d@corp.supernews.com>
Source record: 86092

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:cod3pd$o0q$1@sparta.btinternet.com...
>
> Who the heck are Ramo and Whinnery. Never heard of them! Presumably,
> because you refer to them, they are or were people who make or made a
> living
> out of re-iterating old wive's tales in book-form.
>
> It was obvious I introduced G = C * R / L simply to show that a line's Zo
> can be purely resistive even when it is NOT lossless. It can have any
> loss
> you like.
>
> Apparently you have not yet grasped the idea.
>
> And, despite what R and W or YOU may have to say on the subject, it is an
> exact expression at all frequencies from DC to almost infinity.
>
> My only references are Ohm, Ampere and Volta who I'm sure you have heard
> of.
>
> But no hard feelings. ;o)
>
> Tonight I'm on Chilean, dry, 2004, MontGras, Reserve Chardonnay. I didn't
> choose it myself. My loving daughter does my shopping. But it's quite a
> pleasant, refreshing plonk.
> ----
> Regards, Reg.
>
> ==========================================
>
> "Cecil Moore" wrote
>> Reg Edwards wrote:
>> > The condition for which Zo of a transmission line is always purely
> resistive
>> > (Zo = Ro) is extremely simple. It is -
>> >
>> > G = C * R / L
>>
>> Wonder why Ramo and Whinnery say that's an approximation for low-loss
>> lines? If the R+jwL angle is equal to the G+jwC angle, doesn't that
>> make Z0 purely resistive?
>> --
>> 73, Cecil

>
>

Fields & Waves in Communication Electronics, by S. Ramo, J.R. Whinnery, and T. Van Duzer, Wiley, 3rd edition, 1994

107 proof Baker's for me

73, H.

# 2796. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-28 18:41:44 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <v75kq09q94690lasu0herltdhtho7io2k1@4ax.com>
Source record: 86093

On Sat, 27 Nov 2004 21:43:14 GMT, w9dmk@crosslink.net (Robert Lay
W9DMK) wrote:

> I can see now that the
>Additional Losses Due to SWR really are dissipative and are unrelated
>to the "Mismatch Losses" and "Transducer Losses" defined on page 22-12
>of the ITT Handbook, 5th Ed.

Hi Bob,

I've let this simmer for a while, but I have to return to this because
you've erred in interpretation of this particular page and those
particular subjects. They are entirely caloric losses, not what you
dismiss as the myth of mismatch loss.

You need only review the math offered to observe they use the
conventional "real" line loss and add more "real" line loss in
proportion to the reflections at either one or two interfaces. The
equations are quite literal to this and explicitly state:
A0 = normal attenuation of line

If you want deeper math, one source can be found in Chipman's (as
unread as any here) "Transmission Lines."

This is yet another of my references that attend to my recent, short
thread on the nature of power determination error, and mismatched
loads AND sources. In fact ALL of these references I've offered
explicitly describe that the source MUST be matched for ANY of these
equations about transmission lines bandied about to accurately offer
true answers. The naive presumptions that Source Z is immaterial to
the outcome of analysis is quite widespread here.

Chipman offers the rigorous math that attends explicitly to the Smith
Chart loss nomograph you reference elsewhere in this thread. If you
lack access to this work, I can munge up the equations here for you.
I will add, this math is for "lossless" lines, as is the implication
of the Smith Chart nomograph; but it only requires you to add that in
for yourself by restructuring the math to include loss. At that level
of granularity, it won't be pretty; but you can rest assured it will
be complete.

73's
Richard Clark, KB7QHC

## 2797. Re: TX Distance question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-28 19:20:29 UTC
From: Bruce in Alaska <bruceg@btpost.net>
Message-ID: <bruceg-3F2686.10203128112004@netnews.worldnet.att.net>
Source record: 86094
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.misc

In article <U96qd.73079$Ro.2740348@news20.bellglobal.com>,
James <None@NOSPAM.com> wrote:

> the
> copper wire I ran up the mast is on it's own pulley (well it will be
> when I find time to go up the mast) and is already a lovely shade of
> green.

You should replace the copper wire with the stuff the BIG BOYS use.
It is called Phospher/Bronze Antenna wire and it Doesn't turn green
when in contact with Seawater or salt air. Stuff was designed for this
spacific purpose.

Bruce in alaska
--
add a <2> before @

# 2798. Re: FS: sma-to-bnc custom fit rubber covered antenna adapter

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-28 19:24:19 UTC
From: John P Vassel <heckufaguy@hotmail.com>
Message-ID: <Xns95AF928981CA7heckufaguyhotmailcom@216.196.97.142>
Source record: 86095
Cross-posted to: rec.radio.swap,rec.radio.scanner,rec.radio.amateur.equipment,rec.radio.amateur.antenna

Brian <victhedog@hotmail.com> wrote in
news:0ubdq0hbv87iunjfnm8615eh3ao337a3h7@4ax.com:

> samw thing without rubber 3.75 at any electroncs store
>
> what a rip off
>

And without the rubber, the flex and bending of the antenna gets directly transferred to the sma connector. You'll be wishing you'd had some sort of support before long, as the rig is in the shop with a broken sma connector. Stephens connectors work well, I've had one for years, and think it was one of the smarter accessories I've purchased. (Ft-50)

john

# 2799. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-28 19:28:52 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41aa24f1$1_5@127.0.0.1>
Source record: 86096

Robert Lay W9DMK wrote:
.>>For your 1/4WL open stub on 10.6 MHz, with a stub impedance of 0.57 ohms,
>>I calculate total losses of about 0.2 dB.
>
> I hope I'm not misinterpreting your values - I assume that you are
> starting with a theoretical open circuit and a theoretical RG-8 line
> and calculating a theoretical impedance seen looking into that line of
> 0.57 + j 0. From that you then calculate a theoretical 0.2 dB. When I
> say calculate, I assume that you may instead by using a nomogram.

Not using a nomogram but everything is 100% theoretical. It doesn't
matter what line is being used as long as it's Z0 is 50 ohms. Matched
line loss didn't enter into my calculations. It's only total loss.

> Anyway, based on all of that being the situation up to but not
> including the loss figure, when I take the 0.57 + j0 and calculate the
> SWR as 87.7 I get a loss more like .05 dB, theoretically, so I'm not
> sure in what ways we are coming up with these numbers.

Is that the additional loss due to SWR or the total loss? My theoretical
loss is total loss and the matched line loss need not be known. The
measured resistance of the resonant stub is all one needs to know besides
Z0.

> I can explain
> exactly how I got mine, which was via measurements followed by a
> theoretical cacluation of loss based on the two SWR's formula which is
> built into all Smith Charts.

I can't remember where the following formula came from. I think it
was from an RF guru at Intel, but I can't be sure. I have a hand-
written notebook of useful formulas covering 25 years but I didn't
record where they all came from.

The formula for theoretical TOTAL losses in a *resonant* stub:

Total loss = 10*log{[(Z0-R)/(Z0+R)]^2}

where R is the measured resistance of the resonant stub and Z0
is the characteristic impedance of the stub material. You can
see the [(Z0-R)/(Z0+R)]^2 term is akin to a virtual rho^2 at
the mouth of the stub. Since rho^2 = Pref/Pfor, the losses in
the stub are equivalent to the losses in an equivalent resistance
equal to the measured virtual resistance at the mouth of the stub.
--
73, Cecil http://www.qsl.net/w5dxp

# 2800. Re: surveillance receiver aerial

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-28 19:39:50 UTC
From: Bob Bob <bcnntp@optusnet.com.au>
Message-ID: <75mp72-40d.ln1@p400bob.lse.com.au>
Source record: 86098

Hi Iain

Without going into a lot of transmission line theory.... <grin>

For the purposes of this post, coax is the same as "screened cable". I'd suggest you use coax though (RG58 will do) as its impedance doesnt vary along its length and it is a known value... unlike plain screened cable.

When you setup a radio in a car the antenna attachment on the radio end is normally a coaxial connector. The centre conductor goes into the "live" part of the box and the screen goes to the metal chassis of the radio itself. At the antenna end the centre coax conductor connects to the whip itself and the screen is connected to the car body at the point where the whip starts. The whip is of course insulated from the car body.

In a correctly installed and tuned installation (usually the whip length) the coax doesnt pickup any noise.

You dont need to connect the radio end screen to the car body. In your case you might be able to use a nearby metal screw on the radio. The last alternative maybe to use the negative power line where it enters the radio. The idea is to get the screen connection as close to the receiver input ground as possible. The more exposed centre conductor there is at the radio end the less efficient the system is.

Given the frequency you have mentioned a "good" whip length will be around 570mm. There are of course a number of unknowns in setting up this system so dont try playing with the whip length too much.

Cheers Bob VK2YQA

zentace wrote:
> Gidday Bob
>
> Thanks very much for replying to my questions.
> I take it then, that if you connect a screened cable between the
> aerial and the receiver, the length of the cable itself does not act
> as an aerial because the screening prevents this?
> So if the aerial is only one "core" where do I connect the screen? I
> know I could connect it at the aerial end to the car body (earth) but
> what about at the receiver end? Does it have to connect at all at that
> end as long as the screen is connected to the car body?
> By the way, the car itself will be stationary and switched off so
> hopefully I won't have the problem of interference from the car
> electrics.
> Also the transmitter is apparently fixed frequency 100-125MHz and the
> receiver switched to this.

> I'll experiment and see!
> Let me know if you have any thoughts about the screen.
>
> Thanks again
>
> Iain (Scotland)
>
>

# 2801. Re: Zo and Ro

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-28 19:42:36 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41aa2828$1_2@127.0.0.1>
Source record: 86097

Reg Edwards wrote:

> Who the heck are Ramo and Whinnery. Never heard of them! Presumably,
> because you refer to them, they are or were people who make or made a living
> out of re-iterating old wive's tales in book-form.
>
> It was obvious I introduced G = C * R / L simply to show that a line's Zo
> can be purely resistive even when it is NOT lossless. It can have any loss
> you like.
>
> Apparently you have not yet grasped the idea.

Ramo and Whinnery are the authors of my 50's college textbook on fields and waves. Of course it could be a misprint, but they say your above formula is an approximation that is good for low-loss lines.

Apparently, something additional happens for high-loss lines. Chipman seems to agree with Ramo and Whinnery when he introduces some additional interference terms (discussed some time ago on this newsgroup). At the time, I didn't realize the additional terms were interference terms but the impedance of the load apparently somehow interacts with the characteristic impedance of the high-loss transmission line to upset the ideal relationships in your equation above.
--
73, Cecil http://www.qsl.net/w5dxp

## 2802. Re: TX Distance question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-28 20:50:46 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41aa3822$1_1@127.0.0.1>
Source record: 86099
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.misc

Bill Turner wrote:
> Once the antenna is resonant, a simple L-C network will transform the
> impedance to 50 ohms resistive and you are all set. Simple, cheap and
> reliable, all the things a tuner is not.

And single-banded, one thing a tuner is not. :-)

The antenna need not be resonant. Under certain easily obtainable
conditions, the length of the open-wire transmission line can tune
a non-resonant antenna to system resonance and better the losses in
the coax feeding a resonant antenna. How to do that is described
on my web page.
--
73, Cecil http://www.qsl.net/w5dxp

# 2803. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-28 21:00:32 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41aa3a6c$1_1@127.0.0.1>
Source record: 86100

Cecil Moore wrote:
> The formula for theoretical TOTAL losses in a *resonant* stub:
>
> Total loss = 10*log{[(Z0-R)/(Z0+R)]^2}
>
> where R is the measured resistance of the resonant stub and Z0
> is the characteristic impedance of the stub material. You can
> see the [(Z0-R)/(Z0+R)]^2 term is akin to a virtual rho^2 at
> the mouth of the stub. Since rho^2 = Pref/Pfor, the losses in
> the stub are equivalent to the losses in an equivalent resistance
> equal to the measured virtual resistance at the mouth of the stub.

In other words, replace the stub with a resistor having the same
value of measured resistance as the stub, and calculate the I^2*R
losses in the resistor. That will be the same value as the total
losses in the stub.
--
73, Cecil http://www.qsl.net/w5dxp

# 2804. Re: TX Distance question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-28 21:01:47 UTC
From: Keyboard In The Wilderness <Key@Kennel.net>
Message-ID: <_0rqd.178485$hj.46934@fed1read07>
Source record: 86101
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.misc

Back to TX distance - you really need to get a good book on propagation and understand the solar cycle and the characteristics of each band.

For example -- on 10M with the right time in the 11 year solar cycle -- a minimum antenna and a few watts will work the world (at the right time of day)

On 160M in the day time in the summer with low power -- you ain't going anywhere

--
The Anon Keyboard
I doubt, therefore I might be

"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:41aa3822$1_1@127.0.0.1...
> Bill Turner wrote:
>> Once the antenna is resonant, a simple L-C network will transform the
>> impedance to 50 ohms resistive and you are all set. Simple, cheap and
>> reliable, all the things a tuner is not.
>
> And single-banded, one thing a tuner is not. :-)
>
> The antenna need not be resonant. Under certain easily obtainable
> conditions, the length of the open-wire transmission line can tune
> a non-resonant antenna to system resonance and better the losses in
> the coax feeding a resonant antenna. How to do that is described
> on my web page.
> --
> 73, Cecil http://www.qsl.net/w5dxp

## 2805. Re: TX Distance question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-28 21:15:13 UTC
From: Gary Schafer <gaschafer@comcast.net>
Message-ID: <mtfkq0t4ls63nbfku1h22vfl2q87viu00p@4ax.com>
Source record: 86102
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.misc

On Sun, 28 Nov 2004 12:06:48 -0800, Bill Turner <noway@nohow.com>
wrote:

>On Sun, 28 Nov 2004 15:17:53 GMT, 'Doc <w5lz@cwis.net> wrote:
>
>>Since the backstay (or
>>frontstay) is ~there~ anyway, why not use it? Certainly not the
>>'best' thing in the world (whatever that is), but 'better' than most
>>alternative$.
>
>There are insulators designed just for backstays which one could place
>at the 16.4 foot level for 20 meters, or multiple locations for multiple
>bands. In a home situation, I wouldn't care much but on a small boat on
>the open sea, KISS could save your life, IMO.
>
>
>> Some people have a 'phobia' about tuners. If you don't want to
>>use one, that's fine.
>
>The word "phobia" means a fear of. I'm certainly not afraid of tuners,
>but I believe making the antenna right is better than using a device to
>compensate for one that isn't. "Bias" would be a better word.
>
>Once the antenna is resonant, a simple L-C network will transform the
>impedance to 50 ohms resistive and you are all set. Simple, cheap and
>reliable, all the things a tuner is not.
>
>
>>They do make 'things' much easier and the
>>difference in performance is 'acceptible' in most cases (acceptible
>>being relative).
>
>Sigh.

It's kind of difficult to get a resonant quarter wave into a back stay
as you don't usually know where ground is. Ground can be any number of
feet from where the feed point is on a boat. Every thing above real
ground is antenna.

73
Gary K4FMX

# 2806. Re: TX Distance question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-28 22:01:33 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41aa48b9$1_2@127.0.0.1>
Source record: 86103
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.misc

Bill Turner wrote:
> A simple pigtail with a banana plug would make the L-network as multi
> banded as you have L-networks. Still simple, cheap and reliable.

Let's see, would I rather switch knife switches at my operating
position or go outside in a Texas Thunder Storm to attach the
pigtails? At my age, I could develop pneumonia or catch the flu
(no flu shot this year). Pneumonia and/or flu is not simple or
cheap. Think I'll stick with my Ladder-Line Length Selector. :-)

Moral: Use virtually lossless transmission line and do all the
matching in the comfort of the shack.
--
73, Cecil http://www.qsl.net/w5dxp

# 2807. Re: FS: sma-to-bnc custom fit rubber covered antenna adapter

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-28 22:30:10 UTC
From: nick smith <NickS@ntlworld.com>
Message-ID: <Sjsqd.221$P23.121@newsfe5-gui.ntli.net>
Source record: 86104
Cross-posted to: rec.radio.swap,rec.radio.scanner,rec.radio.amateur.equipment,rec.radio.amateur.antenna

> And without the rubber, the flex and bending of the antenna gets directly
> transferred to the sma connector. You'll be wishing you'd had some sort of
> support before long, as the rig is in the shop with a broken sma connector.
> Stephens connectors work well, I've had one for years, and think it was one
> of the smarter accessories I've purchased. (Ft-50)
>
>
> john

What are "Stephens connectors" ?
Any pics and where to buy ?

Thanks,

Nick

# 2808. Re: TX Distance question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-28 22:31:23 UTC
From: Keyboard In The Wilderness <Key@Kennel.net>
Message-ID: <%ksqd.178791$hj.57180@fed1read07>
Source record: 86105
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.misc

Bill I agree But
The original poster sed:

"My very first contacts were established with 2 land stations on 14300 at
100W that were about 1000 miles away. They both reported that my signal
was good and that it sounded like I was "sitting right next to them". I
have no idea if this was a good distance, great, or mediocre."

So I assume he was after contacts of several hundred (thousand) miles - not
ground wave.

My point was this for the 160M band (From a book on propagation)

"160 meters. Daytime conditions for this band suffer from extreme D-layer
absorption, reducing the amount of signal to levels far below the noise
floor of our receivers. This limits daytime coverage to essentially
ground-wave coverage. At night, the D layer dissipates rapidly and worldwide
160-meter communication becomes possible via the F2-layer and in ducts in
the electron density valley above the E region peak. Depending on the
propagation mode, high or low elevation angles may be required. A limiting
factor is the noise levels prevalent at these frequencies, both atmospheric
and man-made as well as tropical and mid-latitude thunderstorms which cause
high levels of static in the summer season. Winter conditions are much
better, making winter evenings the best time to work 160-meter DX.

So you might have ground wave on 160M during the day to 100 miles or so.

See URL for details and formulas on ground wave distances
http://www.qsl.net/g3cwi/Downloads/Propagation%201.doc

As I sed --- way too much on propagation to put on a post and cover all the
variables and details -- the original poster needs to get a good book or at
least look at this free URL
http://www.ae4rv.com/tn/propflash.htm

And of course -- "on 10 meters at the
> bottom of the sunspot cycle 10 is open nearly every day to
> somewhere."

Sure -- ground wave and perhaps sporadic-E

--
The Anon Keyboard
I doubt, therefore I might be

"Bill Turner" <noway@nohow.com> wrote in message
news:blgkq0tjn0tvjccn8aaggtgbriej15an2e@4ax.com...

> On Sun, 28 Nov 2004 13:01:47 -0800, "Keyboard In The Wilderness"
> <Key@Kennel.net> wrote:
>
>>On 160M in the day time in the summer with low power -- you ain't going
>>anywhere
>
> ----------
>
> This is true but not for the reason you might think. 160 meters has
> excellent groundwave propagation; better than any other amateur band in
> fact, but the lack of stations is the real reason 160 is mostly dead in
> the daytime. It's a self fulfilling prophecy - nobody is on, so I'm not
> going to get on either. The same thing happens on 10 meters at the
> bottom of the sunspot cycle even though 10 is open nearly every day to
> somewhere.
>
> --
> Bill W6WRT
>

# 2809. Re: TX Distance question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-28 22:36:00 UTC
From: Keyboard In The Wilderness <Key@Kennel.net>
Message-ID: <jpsqd.178792$hj.138093@fed1read07>
Source record: 86106
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.misc

OOppps you are right -- I shouldn't have sed anywhere.
Of course ground wave may get out to 100 miles.

See my other post

--
The Anon Keyboard
I doubt, therefore I might be

"Bill Turner" <noway@nohow.com> wrote in message
news:blgkq0tjn0tvjccn8aaggtgbriej15an2e@4ax.com...
> On Sun, 28 Nov 2004 13:01:47 -0800, "Keyboard In The Wilderness"
> <Key@Kennel.net> wrote:
>
>>On 160M in the day time in the summer with low power -- you ain't going
>>anywhere
>
> ----------
>
> This is true but not for the reason you might think. 160 meters has
> excellent groundwave propagation; better than any other amateur band in
> fact, but the lack of stations is the real reason 160 is mostly dead in
> the daytime. It's a self fulfilling prophecy - nobody is on, so I'm not
> going to get on either. The same thing happens on 10 meters at the
> bottom of the sunspot cycle even though 10 is open nearly every day to
> somewhere.
>
> --
> Bill W6WRT
>

# 2810. Re: Zo and Ro

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-28 22:49:54 UTC
From: Bart Rowlett <bart@wb6hqk.ampr.org>
Message-ID: <41AA5612.3010503@wb6hqk.ampr.org>
Source record: 86107

Cecil Moore wrote:
> Reg Edwards wrote:
>
>> It was obvious I introduced G = C * R / L simply to show that a line's Zo
>> can be purely resistive even when it is NOT lossless. It can have any
>> loss
>> you like.
>>
>
> Ramo and Whinnery are the authors of my 50's college textbook on fields
> and waves. Of course it could be a misprint, but they say your above
> formula is an approximation that is good for low-loss lines.

Certainly good at HF and UHF when the skin depth is likely to be a small
fraction of the conductor radius.

> Apparently, something additional happens for high-loss lines.

Not so much high loss, as low frequency. Both L and R are frequency
dependent assuming normal (non superconducting) metallic conductors. G
and C may have a frequency dependency depending on the dielectric
characteristics.

Once the frequency is high enough so that the current can be considered
to flow only on the skin of the conductor, the effective AC resistance
is proportional to the square root of the frequency and the inductance
is constant. At frequencies below the above defined 'critical
frequency', the internal inductance must be considered as well as the
complicated frequency dependence of resistance.

Chipman
> seems to agree with Ramo and Whinnery when he introduces some additional
> interference terms (discussed some time ago on this newsgroup).

Yep.

At the
> time, I didn't realize the additional terms were interference terms but
> the impedance of the load apparently somehow interacts with the
> characteristic impedance of the high-loss transmission line to upset
> the ideal relationships in your equation above.

The relationship is correct for all frequencies and standing wave ratios
as long as the correct frequency dependent values of transmission line
parameters are used. The wave equation still describes the relationship
between current and voltage. The additional 'interference' terms appear
when calculating the energy distribution and loss characteristics.

bart
wb6hqk

## 2811. Re: I passed

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-28 23:22:49 UTC
From: Shadow_998 <hrd998cc@yahoo.nospam.com>
Message-ID: <d5tqd.34540$6q2.11694@newssvr14.news.prodigy.com>
Source record: 86108

That's the next hurdle, Robert. The code was the biggest leap. The extra
test is not easy, but I am planning on taking it by next Spring or Summer.

Thanks.

Russ KG6TDX legitimate General Class now.

"Robert Casey" <wa2ise@ix.netcom.com> wrote in > >
> Congrads. When you get a chance get the extra. Then
> the entire ham radio allocations are at your fingertips.
>

# 2812. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-28 23:53:59 UTC
From: Wes Stewart <n7ws_@_yahoo.com>
Message-ID: <6ookq01qulf9t2ls9d8fp7fgspi1sfgsfd@4ax.com>
Source record: 86109

On Sun, 28 Nov 2004 18:41:44 GMT, Richard Clark <kb7qhc@comcast.net>
wrote:

|On Sat, 27 Nov 2004 21:43:14 GMT, w9dmk@crosslink.net (Robert Lay
|W9DMK) wrote:
|
|> I can see now that the
|>Additional Losses Due to SWR really are dissipative and are unrelated
|>to the "Mismatch Losses" and "Transducer Losses" defined on page 22-12
|>of the ITT Handbook, 5th Ed.
|
|Hi Bob,
|
|I've let this simmer for a while, but I have to return to this because
|you've erred in interpretation of this particular page and those
|particular subjects. They are entirely caloric losses, not what you
|dismiss as the myth of mismatch loss.
|
|You need only review the math offered to observe they use the
|conventional "real" line loss and add more "real" line loss in
|proportion to the reflections at either one or two interfaces. The
|equations are quite literal to this and explicitly state:
| A0 = normal attenuation of line
|
|If you want deeper math, one source can be found in Chipman's (as
|unread as any here) "Transmission Lines."
|
|This is yet another of my references that attend to my recent, short
|thread on the nature of power determination error, and mismatched
|loads AND sources. In fact ALL of these references I've offered
|explicitly describe that the source MUST be matched for ANY of these
|equations about transmission lines bandied about to accurately offer
|true answers. The naive presumptions that Source Z is immaterial to
|the outcome of analysis is quite widespread here.
|
|Chipman offers the rigorous math that attends explicitly to the Smith
|Chart loss nomograph you reference elsewhere in this thread. If you
|lack access to this work, I can munge up the equations here for you.

Richard,

If you wouild cite the pages to which you refer, I would gladly scan
then to pdf and post them for all to reference.

Wes

|I will add, this math is for "lossless" lines, as is the implication
|of the Smith Chart nomograph; but it only requires you to add that in
|for yourself by restructuring the math to include loss. At that level
|of granularity, it won't be pretty; but you can rest assured it will
|be complete.
|
|73's
|Richard Clark, KB7QHC

# 2813. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-29 00:02:10 UTC
From: w9dmk@crosslink.net
Message-ID: <41aa653f.38144288@news.crosslink.net>
Source record: 86110

On Sun, 28 Nov 2004 18:41:44 GMT, Richard Clark <kb7qhc@comcast.net>
wrote:

>On Sat, 27 Nov 2004 21:43:14 GMT, w9dmk@crosslink.net (Robert Lay
>W9DMK) wrote:
>
>> I can see now that the
>>Additional Losses Due to SWR really are dissipative and are unrelated
>>to the "Mismatch Losses" and "Transducer Losses" defined on page 22-12
>>of the ITT Handbook, 5th Ed.
>
>Hi Bob,
>
>I've let this simmer for a while, but I have to return to this because
>you've erred in interpretation of this particular page and those
>particular subjects. They are entirely caloric losses, not what you
>dismiss as the myth of mismatch loss.
>
>You need only review the math offered to observe they use the
>conventional "real" line loss and add more "real" line loss in
>proportion to the reflections at either one or two interfaces. The
>equations are quite literal to this and explicitly state:
> A0 = normal attenuation of line

I goofed on the part that is talking about transducer loss. I should
NOT have included the "Transducer Losses" in my statement above. The
Transducer losses do, as you say, include the normal attenuation of
the line, which is indeed a dissipative loss.

>If you want deeper math, one source can be found in Chipman's (as
>unread as any here) "Transmission Lines."
>
>This is yet another of my references that attend to my recent, short
>thread on the nature of power determination error, and mismatched
>loads AND sources. In fact ALL of these references I've offered
>explicitly describe that the source MUST be matched for ANY of these
>equations about transmission lines bandied about to accurately offer
>true answers. The naive presumptions that Source Z is immaterial to
>the outcome of analysis is quite widespread here.
>
>Chipman offers the rigorous math that attends explicitly to the Smith
>Chart loss nomograph you reference elsewhere in this thread. If you
>lack access to this work, I can munge up the equations here for you.
>I will add, this math is for "lossless" lines, as is the implication
>of the Smith Chart nomograph; but it only requires you to add that in

>for yourself by restructuring the math to include loss. At that level
>of granularity, it won't be pretty; but you can rest assured it will
>be complete.

I'm not sure what you are saying about the loss nomograph on the Smith Chart. If that's wrong too, then we're in big trouble. Everything ever written that I have seen about the Smith Charts agrees that the actual losses in the transmission line are indicated by the collapsing of the circle as one traverses the transmission line. All you have to do is read the "loss in 1 dB steps" scale to determine those losses.

Bob, W9DMK, Dahlgren, VA
http://www.qsl.net/w9dmk

# 2814. Re: TX Distance question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-29 00:10:51 UTC
From: James <None@NOSPAM.com>
Message-ID: <lPtqd.2758$kl6.207737@news20.bellglobal.com>
Source record: 86111
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.misc

Bill Turner wrote:
> On Sun, 28 Nov 2004 16:01:33 -0600, Cecil Moore <w5dxp@hotmail.com>
> wrote:
>
>
>>Let's see, would I rather switch knife switches at my operating
>>position or go outside in a Texas Thunder Storm to attach the
>>pigtails? At my age, I could develop pneumonia or catch the flu
>>(no flu shot this year). Pneumonia and/or flu is not simple or
>>cheap. Think I'll stick with my Ladder-Line Length Selector. :-)
>
>
> ----------
>
> You misunderstand. On a sailboat, the pigtails for selecting L-networks
> could (and should) be inside the boat, right under the eyepad for the
> antenna.
>
> Pneumonia not required.
>
> --
> Bill W6WRT
>

No possible way that could be accomodated with any degree of safety or convenience at all Bill.

On a sailboat, the conventional way to run a long piece of wire is up the mast at the stern. Either a wire or an insultated backstay is used. The backstay is the guy wire at the back of the boat holding the mast up. Insulators can be cut into the backstay allowing it to be used as an antenna. I don't care for that much as it seems possible for the backstay insulators to fail (even though the manufacturers claim otherwise), leading to a dismasting. People die that way. So I run a simple copper wire up the back between the 2 backstays.

At the stern of most sailboats, there are exterior storage lockers. A very heavy stainless steel "chain plate" is attached to the hull at the stern, and the back stay (or in my case stays, as I have two) are attached to those chain plates. My chain plates are right on the transom which is typical of most sailboats. That's RIGHT at the back of the boat. There is a stern locker nearby for storage of stuff you want to use in the cockpit. That is a typical layout for most sailboats. Then, heading forward there is a cockpit area, then the companionway down into

the cabin. Below the cockpit is engine, and no living space. The livingspace typically begins at the companionway.

Typically, the radio is located at the nav station, which is midship in the cabin, in my case about 15 feet from the stern locker where the tuner is located. My boat is quite typical of most sailboats. There is no living space in the vicinity of the transom nor is there living space under the cockpit. Some sailboats feature a center cockpit, in which case a large master stateroom is usually under the back of the boat. That's not where a radio belongs either. It belongs at the nav station.

In other words, in order to use pigtails "right under the antenna" as you suggest I would have to go outside of the cabin by climbing up the companionway, walk to the very back of the boat (a place you do not want to be when in heavy weather), open a stern locker, get down on my hands and knees and fiddle with the pigtails whilst pitching about as if in a washing machine of the spin cycle. Then go (stagger really) back inside to use the radio. Switch bands? Do the whole thing again. By the way in heavy weather, leaving the cabin also entails strapping on a heavy safety harness, possibly foul weather wear, and then attaching the safety harness to a line that is attached to the boat, before exiting the cabin. As you can surely appreciate, pigtails or any other mechanical connections to be messed with would simply not work in the environmnent.

Simply put, the only practical solution on a sailboat is a tuner. That is why I have never yet (in over 25 years of serious messing with boats and countless sea miles under my keel) seen a ham or marine SSB equipped boat without a tuner.

It is the ONLY practical solution.

# 2815. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-29 00:28:22 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <8cqkq0ttok9gd7s3i5e33kk3b0bn9arn8c@4ax.com>
Source record: 86112

On Sun, 28 Nov 2004 16:53:59 -0700, Wes Stewart <n7ws_@_yahoo.com>
wrote:

>If you wouild cite the pages to which you refer, I would gladly scan
>then to pdf and post them for all to reference.

Hi Wes,

The math is on the bottom of pg. 203 which is supporting Fig. 9-26.

There is also a section entitled 8.8 Multiple reflections on ppg
174...176.

Then there is the specific math of fully specified matches at both
ends, that is at the source and the load, found in Fig. 10-7 that is
supported by discussion on ppg. 225...227.

All of this bears on discussion around and about the necessary
treatment of the Z of the Source, but I haven't supplied all the
citations within this one reference by any means.

Thanx, Wes. You needn't do all these scans. The group needs to do
their own heavy lifting to escape their naivety about source Z.

73's
Richard Clark, KB7QHC

# 2816. Re: What's the best Source of Info On Rhombics?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-29 00:43:48 UTC
From: Mike Luther <mike.luther@ziplog.com>
Message-ID: <10qks66qsli7m6d@corp.supernews.com>
Source record: 86113

You might have a look at,

MailfrmPA wrote:
> What book/mag article would you recommend as the best "how to " source of info
> on rhombics for the low bands? The comming cold dark nights put me in a mind
> for dreaming of big antennas. For bedtime reading I don't want a lot of
> formulas, just nuts and bolts info
>
> K0MB

"Antenna Engineering Handbook", by Hery Jasik - starting at 4.12 - The
topic 4.6 ' Rhombic Antenna in Free Space and go from there in that book.

W5WQN

Mike Luther

# 2817. Re: TX Distance question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-29 00:49:57 UTC
From: Chuck <nospam@nospam.com>
Message-ID: <Vmuqd.8656$Ua.2175@newsread3.news.atl.earthlink.net>
Source record: 86114
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.misc

There should be no problem at all with some of the antenna being below deck. It would be good to keep it away from metal stuff of course. Longer horizontal runs tend to raise issues, though. Probably a greater chance of coupling rf into the boat's other electrical systems, and a long run of 20 feet or so (say from the backstay to a nav station amidships) can radically alter the radiation pattern. Maybe for the good, maybe not. And that is the main reason that manual tuners are questionable choices for use with backstay antennas. Nobody wants to try to manually tune a backstay antenna located at the stern if the rig is 15=20 feet away.

To avoid this run, some of us have resorted to loading the shrouds (and the whole rig as well) with an L-network quite successfully. I believe a separate wire run up a flag halyard would be an easier antenna to tune, but it would introduce other issues.

As Gary has said, it is difficult (but only mildly so) to get a resonant quarter-wave in a backstay. It would probably require an antenna impedance analyzer to find resonance. Make it a bit short and add a few turns of wire (cheap and reliable) to bring it to resonance.

Chuck

Bill Turner wrote:
> On Sun, 28 Nov 2004 21:15:13 GMT, Gary Schafer <gaschafer@comcast.net>
> wrote:
>
>
>>It's kind of difficult to get a resonant quarter wave into a back stay
>>as you don't usually know where ground is. Ground can be any number of
>>feet from where the feed point is on a boat. Every thing above real
>>ground is antenna.
>
>
> ----------
>
> Correct. For simplicity, figure the feed point is right where the coax
> shield connects to the ground plane. As you said, everything above that
> is antenna. On a fiberglass sailboat, the hull is quite transparent to
> RF on HF frequencies, so the presence of a few feet of antenna inside
> the hull is of no consequence.
>
> --
> Bill W6WRT

>

# 2818. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-29 01:08:21 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <jiskq0h4hv9cp8ki7oc7atek4dfiivgbv2@4ax.com>
Source record: 86115

On Mon, 29 Nov 2004 00:02:10 GMT, w9dmk@crosslink.net (Robert Lay W9DMK) wrote:
>I'm not sure what you are saying about the loss nomograph on the Smith >Chart. If that's wrong too, then we're in big trouble.

Hi Bob,

Chipman devotes an entire chapter on the Smith Chart, covering each scale completely (I wonder why Reg thinks it would take so many months to accumulate this information if he, as he alludes, is already aware of Chipman's work.).

However, the nomograph discusses nothing in terms of any particular line's dissipative loss as that is outside of purpose of the chart. I'm afraid you are back in the mythical mismatch loss there. When Wes puts that particular page online, then perhaps you may find a way to fully describe your situation - including loss specific to your tests.

Chipman states quite bluntly:
"IF the transmission line of Fig. 9-26 is lossless...."

The point of my posts is that few actually read this material to appreciate the very carefully stated premises. The problems arise when derivative work is used as a source wherein that author presumes that the reader is educated in the particulars that go left unsaid.... like all Sources' Z MUST match the line for any analysis to be valid. Instead we get these trivializations of the matter that this is only a concern inhabiting only specialty sources in specialty labs.

However, as applied to your recent work, the degree of mismatch offered by your source is low enough to be negligible; but as you are not aware of its degree, then neither are you aware of the scope of your error.

73's
Richard Clark, KB7QHC

# 2819. Re: Inverted V Noise Problem

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-29 01:19:57 UTC
From: SideBand <AINO8SPAMW@cac.net>
Message-ID: <1Puqd.25361$Rf1.10495@newssvr19.news.prodigy.com>
Source record: 86116

Richard:

Don't forget the harmonics that may be caused and radiated by the power lines...

Just a thought.

-SSB

Richard Clark wrote:
> On Sun, 28 Nov 2004 12:15:40 -0500, "- XC -" <nobody@home.net> wrote:
>
>
>>So my 2 cent theory is that the original antenna location lies in a power
>>line noise pattern null (or no low angle) and at the new height it's now in
>>a lobe.
>
>
> Hi John,
>
> The simple wavelength mechanics of that negate the premise. For any
> structure, much less a power line, to exhibit a null due to a dipolar
> distribution; then that would have to arise from certain constraints.
> Chief among them is isolation from ground by a significant portion of
> one wavelength, in this power line case 5000000 meters.
>
> However, the noise is not 60Hz. In the case of the actual frequency
> of the interference, it is equally unlikely to be emanating from the
> power lines - from the 60 Hz generation end. It would necessarily be
> emanating from a load that is using the line as an antenna (although,
> not purposely except in your nightmare of BPL).
>
> In this case of higher frequency nuisance, the same powerlines would
> present an enormously long structure (unless the noise were snubbed at
> the nearest isolation transformer). that would create a huge number of
> lobes. And still, it is unlikely that any null to peak of those lobes
> would match the characteristic of no noise to S-9 variation. As such,
> the odds are on square-law ruled proximity. Where in quieter times
> past the noise was 10's of feet away, with change that noise got
> within inches. That, or the description of noise levels has been
> exaggerated.
>
> A noise survey should be performed with a simple handheld transistor
> SW receiver. Walk around and listen. If push comes to shove, then
> tie a string to the receiver, turn up the volume and hoist it up.

> More can be determined by this than all the arm-chair prognosis.
>
> 73's
> Richard Clark, KB7QHC

# 2820. Re: TX Distance question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-29 03:10:35 UTC
From: Gary Schafer <gaschafer@comcast.net>
Message-ID: <ql4lq092caupkig9m7hktah3m5b9ia4o6b@4ax.com>
Source record: 86117
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.misc

On Sun, 28 Nov 2004 19:10:51 -0500, James <None@NOSPAM.com> wrote:

>Bill Turner wrote:
>> On Sun, 28 Nov 2004 16:01:33 -0600, Cecil Moore <w5dxp@hotmail.com>
>> wrote:
>>
>>
>>>Let's see, would I rather switch knife switches at my operating
>>>position or go outside in a Texas Thunder Storm to attach the
>>>pigtails? At my age, I could develop pneumonia or catch the flu
>>>(no flu shot this year). Pneumonia and/or flu is not simple or
>>>cheap. Think I'll stick with my Ladder-Line Length Selector. :-)
>>
>>
>> ------------------------------------------------------------
>>
>> You misunderstand. On a sailboat, the pigtails for selecting L-networks
>> could (and should) be inside the boat, right under the eyepad for the
>> antenna.
>>
>> Pneumonia not required.
>>
>> --
>> Bill W6WRT
>>
>
>No possible way that could be accomodated with any degree of safety or
>convenience at all Bill.
>
>On a sailboat, the conventional way to run a long piece of wire is up
>the mast at the stern. Either a wire or an insultated backstay is used.
>The backstay is the guy wire at the back of the boat holding the mast
>up. Insulators can be cut into the backstay allowing it to be used as an
>antenna. I don't care for that much as it seems possible for the
>backstay insulators to fail (even though the manufacturers claim
>otherwise), leading to a dismasting. People die that way. So I run a
>simple copper wire up the back between the 2 backstays.
>
>At the stern of most sailboats, there are exterior storage lockers. A
>very heavy stainless steel "chain plate" is attached to the hull at the
>stern, and the back stay (or in my case stays, as I have two) are
>attached to those chain plates. My chain plates are right on the transom
>which is typical of most sailboats. That's RIGHT at the back of the

>boat. There is a stern locker nearby for storage of stuff you want to
>use in the cockpit. That is a typical layout for most sailboats. Then,
>heading forward there is a cockpit area, then the companionway down into
>the cabin. Below the cockpit is engine, and no living space. The
>livingspace typically begins at the companionway.
>
>Typically, the radio is located at the nav station, which is midship in
>the cabin, in my case about 15 feet from the stern locker where the
>tuner is located. My boat is quite typical of most sailboats. There is
>no living space in the vicinity of the transom nor is there living space
>under the cockpit. Some sailboats feature a center cockpit, in which
>case a large master stateroom is usually under the back of the boat.
>That's not where a radio belongs either. It belongs at the nav station.
>
>In other words, in order to use pigtails "right under the antenna" as
>you suggest I would have to go outside of the cabin by climbing up the
>companionway, walk to the very back of the boat (a place you do not want
>to be when in heavy weather), open a stern locker, get down on my hands
>and knees and fiddle with the pigtails whilst pitching about as if in a
>washing machine of the spin cycle. Then go (stagger really) back inside
>to use the radio. Switch bands? Do the whole thing again. By the way in
>heavy weather, leaving the cabin also entails strapping on a heavy
>safety harness, possibly foul weather wear, and then attaching the
>safety harness to a line that is attached to the boat, before exiting
>the cabin. As you can surely appreciate, pigtails or any other
>mechanical connections to be messed with would simply not work in the
>environmnent.
>
>Simply put, the only practical solution on a sailboat is a tuner. That
>is why I have never yet (in over 25 years of serious messing with boats
>and countless sea miles under my keel) seen a ham or marine SSB equipped
>boat without a tuner.
>
>It is the ONLY practical solution.

Aman James! The autotuner is the bet thing since sliced bread for a
boat.

73
Gary K4FMX

# 2821. Re: TX Distance question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-29 03:18:01 UTC
From: Gary Schafer <gaschafer@comcast.net>
Message-ID: <v35lq0pn7u00t0udpln25cjlfs8nvf7li0@4ax.com>
Source record: 86118
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.misc

On Sun, 28 Nov 2004 15:20:37 -0800, Bill Turner <noway@nohow.com>
wrote:

>On Sun, 28 Nov 2004 21:15:13 GMT, Gary Schafer <gaschafer@comcast.net>
>wrote:
>
>>It's kind of difficult to get a resonant quarter wave into a back stay
>>as you don't usually know where ground is. Ground can be any number of
>>feet from where the feed point is on a boat. Every thing above real
>>ground is antenna.
>
>_____
>
>Correct. For simplicity, figure the feed point is right where the coax
>shield connects to the ground plane. As you said, everything above that
>is antenna. On a fiberglass sailboat, the hull is quite transparent to
>RF on HF frequencies, so the presence of a few feet of antenna inside
>the hull is of no consequence.

When I said "you don't usually know where ground is" I meant that on a
boat what may look like real ground may not be. Usually there are a
lot of different things tied together to try and get a decent ground
for the radio. The length of those leads are a factor. There is no way
to know for sure how long the actual ground lead is without measuring
where your antenna resonates.

Cut and try with a backstay is not practical.

73
Gary K4FMX

# 2822. Re: FS: sma-to-bnc custom fit rubber covered antenna adapter

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-29 03:52:04 UTC
From: John P Vassel <heckufaguy@hotmail.com>
Message-ID: <Xns95AFE89F97947heckufaguyhotmailcom@216.196.97.142>
Source record: 86119
Cross-posted to: rec.radio.swap,rec.radio.scanner,rec.radio.amateur.equipment,rec.radio.amateur.antenna

"nick smith" <NickS@ntlworld.com> wrote in news:Sjsqd.221$P23.121
@newsfe5-gui.ntli.net:

> What are "Stephens connectors" ?
> Any pics and where to buy ?
>
> Thanks,
>
> Nick
>

Sizes to fit radio models:
Yaesu: VX-5R, VX-7R, VX-2R, VX-1R, FT-50-R, FT-60-R, VX-10, VX-150,
VX-110, VXA-100, VXA-120, VX-800, VXA-700
Icom: IC-T90A, IC-R5, IC-R2, IC-T8A, IC-T81A, IC-Q7A, IC-M1V
Kenwood: TH-D7, TH-G71, TH-F6A, TH-59, TH-K2AT
Alinco: DJ-V5, DJ-X3, DJ-S40
Midland : G-11
Maycom : AR108
Standard: C508A, C510, HX-460S
Uniden : Atlantis(marine)
Tate Orca : Excel
Radio Shack: HTX-200, HTX-400, HTX-245, HTX-420

Previewed in the May 2000 Issue of CQ Magazine, and the Nov. 2000
Issue of QST Magazine.

$11.95 ea. + $1.50 S+H(One to unlimited)
(Check or money order only in U.S.Funds)
(Specify-radio-model)

STEPHEN G.GULYAS
706 LALOR ST.
TRENTON, N.J. 08610
U.S.A.

A photo of the adapter is available upon request.

I welcome any questions or comments at my email:
gulyas@earthlink.net

Thanks for looking at my posting.
S.G.G. KC2BHO 73's

# 2823. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-29 04:09:50 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <coe7ee$rf1$1@hercules.btinternet.com>
Source record: 86120

Just a few meandering thoughts -

For anyone assembling a collection of exact transmission line formulae, of which there are dozens, some more applicable to practical problems than others, it is best to begin with the most commonly used and the most complicated formulae. Don't incorporate approximate formulae or you will later wish that you hadn't.

Clear your minds of superfluous Smith Charts, standing waves, reflected power, virtual short circuits, conjugate matches, etc. A clear understanding of how transmission lines work is essential. You should be familiar with complex hyperbolic functions. Only metric line dimensions should be used.

What are required are calculating procedures which accepts all possible input data and finish with preferably a single number. In some cases, if not needed, input data can be set to zero but the facility must exist.

You will then have designed a set of step-by-step routines as in computer programs but which can be tediously and logically worked through with a pocket calculator. The number of intermediate variables can be large. But there can be only one unambiguous straight-line path through subroutines.

For example, in a large number of cases the single output quantity is related to line loss, such as insertion loss in dB, or load power in watts, or transmission efficiency in percent, or percent of input power lost in the line itself.

But before this can be calculated it is essential to calculate input impedance Rin+jXin for given attenuation in dB or nepers, given phase shift in radians and given terminating impedance Rt+jXt. Then include generator impedance Rg+jXg and internal generator volts. Having done this you are half-way through.

Some intermediate results may be useful. Such as input impedance which terminates a tuner or provides a source for a receiver.

Such intermediate results as reflection coefficient magnitudes and angles may be explicitly available but may be of no practical use. What can you do with them? The calculation is already complete. You might find an SWR somewhere in there if you recognise it but who cares.

Well, you get the idea. But if you had the source codings of some of my programs I can assure you they would not be of the slightest use. You may just as well start at the begining. There are many ways of accomplishing the same task. A mathematical program is a work of art as much as it is a set of logical rules. But only the programmer can fully appreciate the beauty.

First prepare a list of proposed interrelated calculating formulae or
routines.
Then write the routines on paper.
Then test them on a computer.
Then spend the next 12 months removing the bugs.
Ditto, removing the bugs caused by the debugging operations.
Then publish them in the ARRL Handbook, 2009 edition, using a better
printer.
---
Reg.

# 2824. Re: Zo and Ro

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-29 05:01:04 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41aaab0e_1@127.0.0.1>
Source record: 86121

Bart Rowlett wrote:
> The relationship is correct for all frequencies and standing wave ratios
> as long as the correct frequency dependent values of transmission line
> parameters are used.

Here's the equation that Ramo and Whinnery says is an approximation
for low-loss lines.

Z0 = SQRT(L/C)[1 + j(G/2wC - R/2wL)]

If G = C * R / L then Z0 = SQRT(L/C)

So why did Ramo and Whinnery say it is an approximation for low-loss
lines?
--
73, Cecil http://www.qsl.net/w5dxp

## 2825. Trucker babe antenna topper

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-29 05:48:24 UTC
From: Gina-in-Ky@webtv.net
Message-ID: <21084-41AAB828-233@storefull-3158.bay.webtv.net>
Source record: 86022

I have searched all the sites and can NOT find an antenna topper that has the trucker babe/mud flap girl on it.If ANYONE can link me to anybody selling them please do! My addy is GinaJ45@hotmail.com
Thanks!

# 2826. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-29 07:50:33 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <h8klq091rabjgi9c4kp0i450i1m03v7o3f@4ax.com>
Source record: 86023

On Mon, 29 Nov 2004 04:09:50 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>But only the programmer can fully appreciate the beauty.

Hi Reggie,

Nice posting.

Once, some many (few in your perspective) years ago, you once retorted
to my style with "this is not rec.radio.amateur.antenna.poetry."
There is more than the bouquet of that romantic tendency in your last
posting. However, neither of us is really surprised to find that in
the other. ;-)

73's
Richard Clark, KB7QHC

# 2827. Re: Zo and Ro

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-29 07:52:25 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <i1llq0ll1muvbqn6p8tsqn53j8g20ton7u@4ax.com>
Source record: 86024

On Sun, 28 Nov 2004 23:01:04 -0600, Cecil Moore <w5dxp@hotmail.com>
wrote:
>Here's the equation that Ramo and Whinnery says is an approximation
>for low-loss lines.
So you keep saying. Is it that difficult to find their exact solution
for any lines?

# 2828. FS: Cushcraft Vertical HF MA5V Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-29 13:23:24 UTC
From: David Hawkins <res6mlv3@verizon.net>
Message-ID: <gpFqd.13512$%C6.12556@trnddc02>
Source record: 86026

Cushcraft Vertical HF MA5V Antenna
http://www.cushcraft.com/amateur/details.asp?catid=92

Bought new and installed a year ago. Nice antenna, works fine. Just didn't use it much. I took it down this weekend, and its all assembled and you will need a pickup truck with a long bed to haul away. They sell this item for $230 new.

Price: $100

Location: Plano Texas, near Hwy 75 and Parker Rd exit.

Call: 972-881-2997 or email.

# 2829. Re: TX Distance question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-29 13:55:51 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <HTFqd.25654$Rf1.7381@newssvr19.news.prodigy.com>
Source record: 86025
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.misc

Cecil,
Changing feed line length is a viable option for a land
station, but a not-so-viable option for a sailboat. Where/how
do you place it to keep it out of the way?
'Doc

# 2830. Re: TX Distance question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-29 15:25:20 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <KJWdnTYRIbHKojbcRVn-ow@comcast.com>
Source record: 86028
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.misc

"James" <None@NOSPAM.com> wrote in message
news:lPtqd.2758$kI6.207737@news20.bellglobal.com...
> Bill Turner wrote:
>> On Sun, 28 Nov 2004 16:01:33 -0600, Cecil Moore <w5dxp@hotmail.com>
>> wrote:
>>
>>
>>>Let's see, would I rather switch knife switches at my operating
>>>position or go outside in a Texas Thunder Storm to attach the
>>>pigtails? At my age, I could develop pneumonia or catch the flu
>>>(no flu shot this year). Pneumonia and/or flu is not simple or
>>>cheap. Think I'll stick with my Ladder-Line Length Selector. :-)
>>
>>
>> ------------------------------------------------------
>>
>> You misunderstand. On a sailboat, the pigtails for selecting L-networks
>> could (and should) be inside the boat, right under the eyepad for the
>> antenna.
>>
>> Pneumonia not required.
>>
>> --
>> Bill W6WRT
>>
>
> No possible way that could be accomodated with any degree of safety or
> convenience at all Bill.
>
> On a sailboat, the conventional way to run a long piece of wire is up the
> mast at the stern. Either a wire or an insultated backstay is used. The
> backstay is the guy wire at the back of the boat holding the mast up.
> Insulators can be cut into the backstay allowing it to be used as an
> antenna. I don't care for that much as it seems possible for the backstay
> insulators to fail (even though the manufacturers claim otherwise),
> leading to a dismasting. People die that way. So I run a simple copper
> wire up the back between the 2 backstays.
>
> At the stern of most sailboats, there are exterior storage lockers. A very
> heavy stainless steel "chain plate" is attached to the hull at the stern,
> and the back stay (or in my case stays, as I have two) are attached to
> those chain plates. My chain plates are right on the transom which is
> typical of most sailboats. That's RIGHT at the back of the boat. There is

> a stern locker nearby for storage of stuff you want to use in the cockpit.
> That is a typical layout for most sailboats. Then, heading forward there
> is a cockpit area, then the companionway down into the cabin. Below the
> cockpit is engine, and no living space. The livingspace typically begins
> at the companionway.
>
> Typically, the radio is located at the nav station, which is midship in
> the cabin, in my case about 15 feet from the stern locker where the tuner
> is located. My boat is quite typical of most sailboats. There is no living
> space in the vicinity of the transom nor is there living space under the
> cockpit. Some sailboats feature a center cockpit, in which case a large
> master stateroom is usually under the back of the boat. That's not where a
> radio belongs either. It belongs at the nav station.
>
> In other words, in order to use pigtails "right under the antenna" as you
> suggest I would have to go outside of the cabin by climbing up the
> companionway, walk to the very back of the boat (a place you do not want
> to be when in heavy weather), open a stern locker, get down on my hands
> and knees and fiddle with the pigtails whilst pitching about as if in a
> washing machine of the spin cycle. Then go (stagger really) back inside to
> use the radio. Switch bands? Do the whole thing again. By the way in heavy
> weather, leaving the cabin also entails strapping on a heavy safety
> harness, possibly foul weather wear, and then attaching the safety harness
> to a line that is attached to the boat, before exiting the cabin. As you
> can surely appreciate, pigtails or any other mechanical connections to be
> messed with would simply not work in the environmnent.
>
> Simply put, the only practical solution on a sailboat is a tuner. That is
> why I have never yet (in over 25 years of serious messing with boats and
> countless sea miles under my keel) seen a ham or marine SSB equipped boat
> without a tuner.
>
> It is the ONLY practical solution.

I notice nobody has mentioned traps. That would be another way. 50 feet is long enough to have it work 75 meters, if there are several traps in line. From what I understand, the antenna is mostly vertical. Tuner or not, a 50 foot vertical is getting to be too long for low angle radiation at the higher bands.

Tam/WB2TT

# 2831. Re: Zo and Ro

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-29 15:26:50 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41ab3db5$1_5@127.0.0.1>
Source record: 86027

Richard Clark wrote:

> Cecil Moore <w5dxp@hotmail.com> wrote:
>>Here's the equation that Ramo and Whinnery says is an approximation
>>for low-loss lines.
>
> So you keep saying.

This is the first time I have posted the equation.

> Is it that difficult to find their exact solution
> for any lines?

Maybe the math is easier for the approximation?
--
73, Cecil http://www.qsl.net/w5dxp

# 2832. Re: Zo and Ro

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-29 17:12:26 UTC
From: Bart Rowlett <bart@wb6hqk.ampr.org>
Message-ID: <41AB587A.4050801@wb6hqk.ampr.org>
Source record: 86033

Cecil Moore wrote:

> Here's the equation that Ramo and Whinnery says is an approximation
> for low-loss lines.
>
> Z0 = SQRT(L/C)[1 + j(G/2wC - R/2wL)]
>
> If G = C * R / L then Z0 = SQRT(L/C)
>
> So why did Ramo and Whinnery say it is an approximation for low-loss
> lines?

My response was to your earlier post:

+Reg Edwards wrote:

+> It was obvious I introduced G = C * R / L simply to show that a
+line's Zo
+> can be purely resistive even when it is NOT lossless. It can have
+any loss
+> you like.

To which you responded:

+Ramo and Whinnery are the authors of my 50's college textbook on fields
+and waves. Of course it could be a misprint, but they say your above
+formula is an approximation that is good for low-loss lines.

+Apparently, something additional happens for high-loss lines. Chipman
+seems to agree with Ramo and Whinnery when he introduces some +additional
+interference terms (discussed some time ago on this newsgroup). At the
+time, I didn't realize the additional terms were interference terms but
+the impedance of the load apparently somehow interacts with the
+characteristic impedance of the high-loss transmission line to upset
+the ideal relationships in your equation above.

As Reg points out, if G = C * R / L then Zo is purely resistive for any
frequency for which the relationship holds. This is the well known
'distortionless' condition.

The formula just introduced to the thread

Z0 = SQRT(L/C)[1 + j(G/2wC - R/2wL)]

is an approximation of the well known exact formula:

Z0 = sqrt( (R + jwL) / (G + jwC)) which can be found in any treatise on
transmission lines.

The equation just introduced from Ramo & Whinnery consists of the first two terms of a particular series expansion of the exact formula for Zo, and is therefore an approximation to Zo.

Reg's exact formula for the distortionless condition can be easily derived by noting Zo is purely real when arctan(wL/R) = arctan(wC/G) and working through the algebra.

Setting the imaginary part of Zo to zero in the approximate formula for Zo will in general result in an approximation of the conditions required for the distortionless case (Zo purely real). In this particular case it turns out that the conditions derived from the approximation to Zo are in fact exact. A fact which can be easily verified by direct algebraic manipulation of the exact formula for Zo. Use of an approximation developed for a specific purpose to draw conclusions outside the validity of the approximation will likely lead to incorrect conclusions and provide very little insight into the system being analyzed.

bart
wb6hqk

## 2833. Trifilar winding -- twist or plait?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-29 17:23:53 UTC
From: Ken <cprstn54zz@att.net>
Message-ID: <lgmmq0t904uf75m0bjunjdfjkovsfobmru@4ax.com>
Source record: 86036

I may be obsessing.

When putting trifilar winds around a toroid, does it matter how the three wires are twisted before they are wound?

The easiest way is to just twist the two "outside" wires around the "center" wire. The outside wires would wind up a little longer. It would just a moment longer to plait or braid them, which would make them equal length. Does it matter?

Ken KC2JDY

Ken
(to reply via email
remove "zz" from address)

# 2834. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-29 17:27:37 UTC
From: Wes Stewart <n7ws_@_yahoo.com>
Message-ID: <ttmmq0dnjimijqb8t1up621fecl8pvlqmb@4ax.com>
Source record: 86040

On Mon, 29 Nov 2004 00:28:22 GMT, Richard Clark <kb7qhc@comcast.net>
wrote:

|On Sun, 28 Nov 2004 16:53:59 -0700, Wes Stewart <n7ws_@_yahoo.com>
|wrote:
|
|>If you wouild cite the pages to which you refer, I would gladly scan
|>then to pdf and post them for all to reference.
|
|Hi Wes,
|
|The math is on the bottom of pg. 203 which is supporting Fig. 9-26.
|
|There is also a section entitled 8.8 Multiple reflections on ppg
|174...176.
|
|Then there is the specific math of fully specified matches at both
|ends, that is at the source and the load, found in Fig. 10-7 that is
|supported by discussion on ppg. 225...227.
|
|All of this bears on discussion around and about the necessary
|treatment of the Z of the Source, but I haven't supplied all the
|citations within this one reference by any means.
|
|Thanx, Wes. You needn't do all these scans. The group needs to do
|their own heavy lifting to escape their naivety about source Z.

Hi Richard,

I did it anyway. [g] Hope this covers it:

http://users.triconet.org/wesandlinda/RichardClarkRef.pdf

Regards,

Wes

# 2835. Re: Zo and Ro

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-29 17:35:27 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <53nmq055k6ju91vh6umsaphbgio3h387p0@4ax.com>
Source record: 86037

On Mon, 29 Nov 2004 09:26:50 -0600, Cecil Moore <w5dxp@hotmail.com>
wrote:
>> Is it that difficult to find their exact solution for any lines?
>Maybe the math is easier for the approximation?
Can only guess? That's OK, Bart did it for you. You should at least
thank him for filling this gap.

# 2836. Re: Trifilar winding -- twist or plait?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-29 17:42:15 UTC
From: Rick Karlquist N6RK <richard@karlquist.removethis.com>
Message-ID: <XbJqd.415670$wV.302581@attbi_s54>
Source record: 86035

Yes it does matter, if you are trying to hold a particular Zo to
get maximum bandwidth. I use ribbon cable or multiwire
rotator cable to get the spacing between the wires to be
consistent. The bandwidth is MUCH wider than you
get with twisting or braiding.

Rick N6RK
"Ken" <cprstn54zz@att.net> wrote in message
news:lgmmq0t904uf75m0bjunjdfjkovsfobmru@4ax.com...
> I may be obsessing.
>
> When putting trifilar winds around a toroid, does it matter how the
> three wires are twisted before they are wound?
>
> The easiest way is to just twist the two "outside" wires around the
> "center" wire. The outside wires would wind up a little longer. It
> would just a moment longer to plait or braid them, which would make
> them equal length. Does it matter?
>
> Ken KC2JDY
>
>
> Ken
> (to reply via email
> remove "zz" from address)

# 2837. Re: What's the best Source of Info On Rhombics?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-29 17:46:49 UTC
From: Rick Karlquist N6RK <richard@karlquist.removethis.com>
Message-ID: <dgJqd.415691$wV.134141@attbi_s54>
Source record: 86032

> MailfrmPA wrote:
> > What book/mag article would you recommend as the best "how to " source
of info
> > on rhombics for the low bands? The comming cold dark nights put me in a
mind
> > for dreaming of big antennas. For bedtime reading I don't want a lot of
> > formulas, just nuts and bolts info
> >
> > K0MB

Rhombics are "big" in the physical sense, but you can the same gain in much
less
space with a Yagi, plus much less sidelobe power. Also, I'm not sure what
you
mean by "low bands". On 160 and 80 meters, you either need verticals or a
lot
of height. A 160 meter rhombic would require 20 to 40 acres of land.

Now are you still sure you want to build rhombics?

Rick N6RK

# 2838. Re: Trucker babe antenna topper

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-29 18:02:12 UTC
From: raiar@bbs.galilei.com.nospam
Message-ID: <41ab5c0d.158631890@news.galilei.com>
Source record: 86030

Hi Nana

I won't be much help, but have seen what you are looking for at one of these two truck stops. Don't remember which one for sure so I'll name both of them.
It was either the BP at 1897 Genesis Road, Crossville, TN or the BP at 121-A Luyben Hills, Kingstonsprings, TN
I had stopped both places for fuel last week and one of those had the antenna topper your looking for.
So at least you know they are still in production and for sale somewhere.
Sorry, I don't remember the distributors name on the display cards they were packaged in.
Brockman Custom Parts had some a few years ago, but that's no help is it.

Instead of searching for Trucker Babe, try Naked Lady it might bring up more results.

TTUL
Gary

# 2839. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-29 18:02:13 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <nknmq0po42rr0f4mhvbppjq0iebkupkj03@4ax.com>
Source record: 86034

On Mon, 29 Nov 2004 10:27:37 -0700, Wes Stewart <n7ws_@_yahoo.com>
wrote:
>I did it anyway. [g] Hope this covers it:
>http://users.triconet.org/wesandlinda/RichardClarkRef.pdf

Hi Wes,

Thanx very much. I can see one of two results from this general
availability. The readership here can:
1. Avoid it in stunned shame (the embarrassment in coming of age);
2. Accept it as a remarkable revelation (because it's on the web).

I would hope for a third response from those who could argue what
follows from these first principles, but the lazier ones would
complain of my "attitude" and hobble back to their beauty contests on
their crutches. ;-)

To quote one of my favorite authors, Raymond Chandler, when in "The
Big Sleep" Doghouse Reilly is admonished about the same defect, he
avers "I don't mind if you don't like my manners. They're pretty bad.
I grieve over them during the long winter evenings."

73's
Richard Clark, KB7QHC

# 2840. Re: Trifilar winding -- twist or plait?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-29 18:09:53 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <htomq0l5d8790t04kjn8qrjh78c9rgijas@4ax.com>
Source record: 86029

On Mon, 29 Nov 2004 12:23:53 -0500, Ken <cprstn54zz@att.net> wrote:
>Does it matter?

Hi Ken,

The technique matters at the peripheries of what you seek to accomplish. The tight conjunction of wires (the are properly transmission line) reduces their characteristic Z. This is a positive attribute if you seek that characteristic. Recall that the best line Z is found through the math of finding the root of the product of the two Zs being transformed (in other words, does that tight conjunction lend itself to this root of the product).

However, there are many topologies in winding these items, and not all conform to this technique. For some, you want separation so that the loss and isolation characteristics are maximized at the margins of frequency operation (typically high end use).

So, yes it matters. The real question is: Does it matter for you?

73's
Richard Clark, KB7QHC

# 2841. Re: Zo and Ro

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-29 18:34:06 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41ab699b_1@127.0.0.1>
Source record: 86031

Bart Rowlett wrote:
> Z0 = SQRT(L/C)[1 + j(G/2wC - R/2wL)]
>
> is an approximation of the well known exact formula:
>
> Z0 = sqrt( (R + jwL) / (G + jwC)) which can be found in any treatise on
> transmission lines.
>
> The equation just introduced from Ramo & Whinnery consists of the first
> two terms of a particular series expansion of the exact formula for Zo,
> and is therefore an approximation to Zo.

Thanks, Bart, that answers my question. I jumped to the conclusion that
since [(G/2wC - R/2wL) = 0] satisfied Reg's equation, it followed that it
must be part of the approximation mentioned by Ramo and Whinnery. I just
didn't read far enough: "For many important problems, losses are finite
but relatively small. If R/wL << 1 and G/wC << 1, the following approximations
are obtained by retaining up to second-order terms in the binomial expansions ...
it is often sufficient to retain only first-order correction terms ..."
which is what the above equation does.
--
73, Cecil http://www.qsl.net/w5dxp

## 2842. Re: Zo and Ro

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-29 18:36:13 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41ab6a18$2_1@127.0.0.1>
Source record: 86038

Richard Clark wrote:

> Cecil Moore <w5dxp@hotmail.com> wrote:
>>Maybe the math is easier for the approximation?
>
> Can only guess?

Nope, rhetorical question.

# 2843. Re: Zo and Ro

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-29 19:02:59 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cofrp2$83i$1@hercules.btinternet.com>
Source record: 86039

> Use of an
> approximation developed for a specific purpose to draw conclusions
> outside the validity of the approximation will likely lead to incorrect
> conclusions and provide very little insight into the system being
> analyzed.
>
> bart
> wb6hqk
>
==========

. . . . . and there are still people about who think the Smith Chart is
the best thing since sliced bread.
----
Reg.

# 2844. Re: Trifilar winding -- twist or plait?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-29 20:48:55 UTC
From: Ian Jackson <IanJacksonRemoveThisBit@g3ohx.demon.co.uk>
Message-ID: <nQIIN4L3s4qBFwr0@g3ohx.demon.co.uk>
Source record: 86042

In message <lgmmq0t904uf75m0bjunjdfjkovsfobmru@4ax.com>, Ken
<cprstn54zz@att.net> writes
>I may be obsessing.
>
>When putting trifilar winds around a toroid, does it matter how the
>three wires are twisted before they are wound?
>
>The easiest way is to just twist the two "outside" wires around the
>"center" wire. The outside wires would wind up a little longer. It
>would just a moment longer to plait or braid them, which would make
>them equal length. Does it matter?
>
>Ken KC2JDY
>
>
>Ken
>(to reply via email
>remove "zz" from address)

From my experiences with winding small torroids for CATV, the bandwidth (at least at the HF end) definitely better when you interwind (interleave) the windings.

We put this down to the fact that it probably minimises the capacitance between the turns of the same wire. For example, suppose you use red, green and blue wires. As you progress around the circumference, you have a regular sequence of red, green, blue - red, green, blue etc etc. You will never have a red adjacent to a red etc.

Note that, in principle, you could wind bifilar and trifilar using bare wire, and (with care) never have the adjacent turns touching.

One manufacturer used to use special bifilar and trifilar wire (like miniature flat twin (and triple).

If you do want to twist, we found that twisting the wires would give you a more consistent (and lower) characteristic impedance. This is probably because, if the wires are kept in good contact with each other, the capacity per length is consistent. However, there is no point in twisting any more than is sufficient to keep the surfaces of the wires in intimate contact.

I never thought of braiding (also called 'platting' in the UK). Sound like hard work to me!

Ian.

- -

# 2845. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-29 20:57:16 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10qn39hsirk9s23@corp.supernews.com>
Source record: 86041

I offer a third third response.

On p. 175, Chipman states:

"Equation (8.27) demonstrates explicitly that the shape of a standing wave pattern representing |V(d)| as a function of d on a transmission line is in no way affected by the quantities Vs, Zs and [rho]s at the source."

And equation 8.29 on p. 176, the calculation of reflection coefficient, contains no source-dependent terms. I'm sure that somewhere in the book, the author derives SWR in terms of reflection coefficient.

These are the facts:

1. The SWR, positions of the standing waves, reflection coefficient seen looking into the line, impedance seen looking into the line, and dB line loss are independent of source impedance.
2. The actual amount of power delivered to a line for a given Thevenin source voltage will, of course, depend on the source impedance, just as it would if the source were directly connected to a load. Therefore, the absolute amount of power dissipated in the load depends on source impedance. The dB line loss, however, doesn't. Also, the length of time the line requires to reach equilibrium after initially turning on the source depends on the source impedance.

These can be found, explicitly stated and/or in easily interpreted equation form, in a host of references.

I see nothing in the text Wes has kindly posted which contradicts these facts, and I'm sure there's nothing elsewhere in the text that does.

I often have a hard time understanding Richard's postings, so it's possible that he's not disagreeing with the statements I've made, either. If so, I apologize for the misinterpretation.

Roy Lewallen, W7EL

Richard Clark wrote:

> On Mon, 29 Nov 2004 10:27:37 -0700, Wes Stewart <n7ws_@_yahoo.com>
> wrote:
>
>>I did it anyway. [g] Hope this covers it:
>>http://users.triconet.org/wesandlinda/RichardClarkRef.pdf
>
>
> Hi Wes,

>
> Thanx very much. I can see one of two results from this general
> availability. The readership here can:
> 1. Avoid it in stunned shame (the embarrassment in coming of age);
> 2. Accept it as a remarkable revelation (because it's on the web).
>
> I would hope for a third response from those who could argue what
> follows from these first principles, but the lazier ones would
> complain of my "attitude" and hobble back to their beauty contests on
> their crutches. ;-)
>
> To quote one of my favorite authors, Raymond Chandler, when in "The
> Big Sleep" Doghouse Reilly is admonished about the same defect, he
> avers "I don't mind if you don't like my manners. They're pretty bad.
> I grieve over them during the long winter evenings."
>
> 73's
> Richard Clark, KB7QHC

# 2846. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-29 21:26:24 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10qn8gm6884dq6f@corp.supernews.com>
Source record: 86045

Thanks.

So between equations 8.29 and 8.30 the author calculates VSWR without
any source-related terms -- as every other textbook author does.

Roy Lewallen, W7EL

Wes Stewart wrote:
> On Mon, 29 Nov 2004 12:57:16 -0800, Roy Lewallen <w7el@eznec.com>
> wrote:
>
> |I offer a third third response.
> |
> |On p. 175, Chipman states:
> |
> |"Equation (8.27) demonstrates explicitly that the shape of a standing
> |wave pattern representing |V(d)| as a function of d on a transmission
> |line is in no way affected by the quantities Vs, Zs and [rho]s at the
> |source."
> |
> |And equation 8.29 on p. 176, the calculation of reflection coefficient,
> |contains no source-dependent terms. I'm sure that somewhere in the book,
> |the author derives SWR in terms of reflection coefficient.
>
> Indeed he does---on the next page.
>
> http://users.triconet.org/wesandlinda/ChipmanPage177.pdf
>
> Equation (8.30)
>
> 1 + |rho|
> VSWR -------------
> 1 - |rho|
>
>
>

# 2847. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-29 21:58:10 UTC
From: Wes Stewart <n7ws_@_yahoo.com>
Message-ID: <eb6nq01csbbqat3mbff9mjrkfdslkolu97@4ax.com>
Source record: 86043

On Mon, 29 Nov 2004 12:57:16 -0800, Roy Lewallen <w7el@eznec.com>
wrote:

|I offer a third third response.
|
|On p. 175, Chipman states:
|
|"Equation (8.27) demonstrates explicitly that the shape of a standing
|wave pattern representing |V(d)| as a function of d on a transmission
|line is in no way affected by the quantities Vs, Zs and [rho]s at the
|source."
|
|And equation 8.29 on p. 176, the calculation of reflection coefficient,
|contains no source-dependent terms. I'm sure that somewhere in the book,
|the author derives SWR in terms of reflection coefficient.
|
|These are the facts:
|
|1. The SWR, positions of the standing waves, reflection coefficient seen
|looking into the line, impedance seen looking into the line, and dB line
|loss are independent of source impedance.
|2. The actual amount of power delivered to a line for a given Thevenin
|source voltage will, of course, depend on the source impedance, just as
|it would if the source were directly connected to a load. Therefore, the
|absolute amount of power dissipated in the load depends on source
|impedance. The dB line loss, however, doesn't. Also, the length of time
|the line requires to reach equilibrium after initially turning on the
|source depends on the source impedance.
|
|These can be found, explicitly stated and/or in easily interpreted
|equation form, in a host of references.
|
|I see nothing in the text Wes has kindly posted which contradicts these
|facts, and I'm sure there's nothing elsewhere in the text that does.
|
|I often have a hard time understanding Richard's postings, so it's
|possible that he's not disagreeing with the statements I've made,
|either. If so, I apologize for the misinterpretation.

In an earlier post to this thread, Richard stated:

|"This is yet another of my references that attend to my recent, short
|thread on the nature of power determination error, and mismatched
|loads AND sources. In fact ALL of these references I've offered
|explicitly describe that the source MUST be matched for ANY of these

|equations about transmission lines bandied about to accurately offer
|true answers. The naive presumptions that Source Z is immaterial to
|the outcome of analysis is quite widespread here."

I almost demurred, much as Roy did, because this statement is not universal, but I held off because I believe (and hope) that Richard is talking only about *power* measurement errors.

Wes

# 2848. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-29 22:10:21 UTC
From: Wes Stewart <n7ws_@_yahoo.com>
Message-ID: <547nq0d32ej4tp19uvbij4ftq3mhi5foe9@4ax.com>
Source record: 86044

On Mon, 29 Nov 2004 12:57:16 -0800, Roy Lewallen <w7el@eznec.com>
wrote:

|I offer a third third response.
|
|On p. 175, Chipman states:
|
|"Equation (8.27) demonstrates explicitly that the shape of a standing
|wave pattern representing |V(d)| as a function of d on a transmission
|line is in no way affected by the quantities Vs, Zs and [rho]s at the
|source."
|
|And equation 8.29 on p. 176, the calculation of reflection coefficient,
|contains no source-dependent terms. I'm sure that somewhere in the book,
|the author derives SWR in terms of reflection coefficient.

Indeed he does---on the next page.

http://users.triconet.org/wesandlinda/ChipmanPage177.pdf

Equation (8.30)

```
1 + |rho|
VSWR -------------
1 - |rho|
```

# 2849. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-29 23:14:42 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10qneroj5auq926@corp.supernews.com>
Source record: 86048

Once again, it's not clear to me just what you're trying to prove.

Do you disagree with either of the two numbered statements made in my posting? If so, which part(s) of which one(s) -- I'm sure I can demonstrate their correctness. If not, we probably don't disagree.

Roy Lewallen, W7EL

Richard Clark wrote:
> On Mon, 29 Nov 2004 12:57:16 -0800, Roy Lewallen <w7el@eznec.com>
> wrote:
>
>
>>I'm sure that somewhere in the book,
>>the author derives SWR in terms of reflection coefficient.
>
>
> Hi Roy,
>
> No doubt. As I am not immediately interested in the reductionist art
> of SWR, then the remainder seemed of little relevance to line losses
> and the contribution of source Z to power determination error.
>
> You continue, in part quote of a part quote:
>
>>representing |V(d)| as a function of d
>
> which given you offer no more comment upon it, gives me the impression
> you are unaware of what function d is. The point of the matter is that
> this very equation you chose is examined in isolation, by you, but is
> returned to on several occasions by Chipman where he quite
> "explicitly" exhibits how V(d) ranges wildly for situations where both
> ends of the line are terminated by forced mismatches. This is a
> uncommon technique for determining SWR (still not my point, but
> nonetheless an obvious example).
>
> And yes, I realize
>
>>I often have a hard time understanding Richard's postings
>
> and I often grieve over this on long winter evenings. Roy, you are
> too coy by half. ;-)
>
> However, your aside into SWR shape and the focus on reductions to
> typical applications (source matches line) does leave a dilemma

> because there is now conflict between your isolated quote of Chipman
> and the demonstration of EZNEC as reported by my late, short lived
> thread. I would offer that EZNEC fully supports Chipman's other
> comments on this same quoted material you drew from him, and goes to
> the matter I offered of an uncommon technique for SWR determination.
> My EZNEC reports are also supported by bench results, and other
> sources also recited here. All this seems to leave you on the outside
> looking in. As it broaches upon topics that you have long cautioned
> me that discussion would not "change your mind," I doubt this will go
> any further.
>
> 73's
> Richard Clark, KB7QHC

# 2850. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-29 23:18:07 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41abac2d_4@127.0.0.1>
Source record: 86046

Roy Lewallen wrote:
> I see nothing in the text Wes has kindly posted which contradicts these
> facts, and I'm sure there's nothing elsewhere in the text that does.

None of us are perfect. All of us (except Jim Kelley :-) will admit to being human, i.e. capable of making a mistake. The Z(s) of the source, no doubt, has an effect on the power sourced by the source. But the "power sourced by the source" has no effect on SWR, which is independent of source impedance. Given a steady-state forward power, nothing else depends upon source impedance. If a one ohm source is capable of supplying the same voltage as a one megohm source, the steady-state results will be identical.

Given any source with any source impedance, there exists a forward power. Given any forward power, the source impedance during steady-state is completely irrelevant.
--
73, Cecil http://www.qsl.net/w5dxp

# 2851. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-29 23:30:05 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <dfvhq0h6tsqa9k8g16q7o5607v036u763f@4ax.com>
Source record: 86047

On Mon, 29 Nov 2004 12:57:16 -0800, Roy Lewallen <w7el@eznec.com>
wrote:

>I'm sure that somewhere in the book,
>the author derives SWR in terms of reflection coefficient.

Hi Roy,

No doubt. As I am not immediately interested in the reductionist art
of SWR, then the remainder seemed of little relevance to line losses
and the contribution of source Z to power determination error.

You continue, in part quote of a part quote:
>representing |V(d)| as a function of d
which given you offer no more comment upon it, gives me the impression
you are unaware of what function d is. The point of the matter is that
this very equation you chose is examined in isolation, by you, but is
returned to on several occasions by Chipman where he quite
"explicitly" exhibits how V(d) ranges wildly for situations where both
ends of the line are terminated by forced mismatches. This is a
uncommon technique for determining SWR (still not my point, but
nonetheless an obvious example).

And yes, I realize
>I often have a hard time understanding Richard's postings
and I often grieve over this on long winter evenings. Roy, you are
too coy by half. ;-)

However, your aside into SWR shape and the focus on reductions to
typical applications (source matches line) does leave a dilemma
because there is now conflict between your isolated quote of Chipman
and the demonstration of EZNEC as reported by my late, short lived
thread. I would offer that EZNEC fully supports Chipman's other
comments on this same quoted material you drew from him, and goes to
the matter I offered of an uncommon technique for SWR determination.
My EZNEC reports are also supported by bench results, and other
sources also recited here. All this seems to leave you on the outside
looking in. As it broaches upon topics that you have long cautioned
me that discussion would not "change your mind," I doubt this will go
any further.

73's
Richard Clark, KB7QHC

## 2852. Painting ladder line?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-30 00:58:05 UTC
From: Bob P <nospam@nospam.end>
Message-ID: <-YSdncHgUNj3WzbcRVn-sA@comcast.com>
Source record: 86049

Does anyone know if painting plastic ladder line will adversely effect it's properties?
Doing this for camouflage reasons, not because I've lost my mind!
Rustoleum enamel appears to adhere nicely to a test piece.
Bob
kb8tl at yahoo dot com

## 2853. Question on Dual Band Larsen Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-30 01:23:42 UTC
From: VS <bs@hotmail.com>
Message-ID: <yYPqd.12395$lv6.8885@trnddc03>
Source record: 86050

Does anybody know the specs on a Larsen MA-700 Dual Band 144 & 440 antenna.

# 2854. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-30 02:28:09 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <it9iq0hol4vfli39kflshgd7r22jkpp0h2@4ax.com>
Source record: 86051

On Mon, 29 Nov 2004 15:14:42 -0800, Roy Lewallen <w7el@eznec.com>
wrote:
>Once again, it's not clear to me just what you're trying to prove.

Hi Roy,

Troubles me too....

In the interim I have recognized where I went off the deep end in the thread I have alluded to. The attempt there was to reproduce, in EZNEC, results obtained at the bench and offered through various references which demonstrate Mismatch Uncertainty. Although the model of the transmission line was certainly of the highest quality, EZNEC lacks the capacity to separate forward and reverse waves for analysis. In that regard I mistakenly attributed the results I obtained to my bench results.

Situation is that with a SWR meter moving along a line mismatched at both ends, there is a distinct variation in the computed Power. When I did this at the bench, I could evidence about a 30% variation which was consistent with theory and clearly exhibits the contribution of Source Z when it is other than 50 Ohms. When I recently attempted to model this in EZNEC, I again saw the wild fluctuation of power that seduced me with its complementary results into thinking I had achieved the same results. When I revisited those results (EZNEC ones that is), all I had done was prove the mismatch through the abstraction of the power reported at my moving test load. When I reverse engineered the voltages from the known R, it became obvious that the VSWR corresponded to every expectation - or was close enough given the degree of resolution I had available with 20 test points distributed along the line. Chipman describes this in his late chapters - one of which Wes has provided.

However, this does nothing to detract from Chipman's work that includes the FULL treatment of all variables that lead to the common usages. Such treatments include the Source with full characterizations and goes on to discuss the R of the Source and not just its Z. That so many texts disregard this level of examination does not deny its importance to issues that go beyond SWR. Those lesser texts presume Source Z unlike Chipman, and its significance is lost to the student who hasn't been grounded in the fundamentals. And thus we arrive at the topic at hand and listed in the Subject Line: Additional Line Losses Due to SWR. In that regard, the Source Z is entirely an active player and any additional mismatch that it presents to the system eventually finds additional loss (caloric) injected into it. Chipman's work in that regard is complete enough to offer Bob the

framework to render a complete solution and to explain how and why this additional loss appears. It may not bear on his measurements directly (the measure of a stub's Q as it eventually turns out), but it is related closely enough to provide tangible leads.

73's
Richard Clark, KB7QHC

# 2855. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-30 04:18:56 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41abf2ae_3@127.0.0.1>
Source record: 86053

Richard Clark wrote:
> Chipman's work in that regard is complete enough to offer Bob the
> framework to render a complete solution and to explain how and why
> this additional loss appears. It may not bear on his measurements
> directly (the measure of a stub's Q as it eventually turns out), but
> it is related closely enough to provide tangible leads.

The fact remains that a transmission line/antenna system has the
same characteristics whether one watt, 100 watts, or 1000 watts
are input to it, i.e. the efficiency and SWR of the antenna system
does not depend upon the source impedance.
--
73, Cecil http://www.qsl.net/w5dxp

## 2856. Re: Painting ladder line?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-30 04:19:26 UTC
From: k9sqg@aol.com
Message-ID: <20041129231926.06621.00001071@mb-m15.aol.com>
Source record: 86052

It will work as long as you don't use ultra flat black or similar colors that contain carbon black...

# 2857. randome wire or MP-1 antenna with FT-980

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-30 05:01:34 UTC
From: g.mcenroe@comcast.net
Message-ID: <a2b5b5d1.0411292101.1115c9a4@posting.google.com>
Source record: 86054

I am really new to ham radio and have a couple of questions. I bought a used
Yaesu FT-980 and now am trying to set up an antenna for it.

Option 1: AT-100 Pro / 4:1 balun / randome long wire. I am experimenting with this in my office at the moment. I cut a copper wire (about 3/16 inch strand) and attached it to the antenna line of balun. I ran another short wire to the ground of the wall receptacle. Connected balun to AT-100 Pro with 25 foot coax, then connected the antenna tuner to FT-980. I powered up the transceiver and tried a few differant frequencies. The AT-100 Pro made some grinding noise and was able to bring the SWR down to around 2, the power meter went to about 100. The antenna was drapped across some cubicles (dilbert office). After a short while the antenna wire got a bit hot to touch, and tingled a bit when I touched it. Is this normal? Should I use a longer wire?

Option 2: I am thinking of getting an MP-1 vertical antenna instead of random wire. Can I use the antenna tuner with this? Will it heat up? How do I ground it? Do the counterpose wires spread out act as a ground?

Sorry for all the questions, I am a total beginner.

Thanks for your help,

Glenn
g.mcenroe@comcast.comSPAMREMOVE

# 2858. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-30 07:32:15 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <68viq0hhtih7jln0kl78f609am8gr0v612@4ax.com>
Source record: 86055

On Mon, 29 Nov 2004 22:18:56 -0600, Cecil Moore <w5dxp@hotmail.com>
wrote:
> the efficiency and SWR of the antenna system
>does not depend upon the source impedance.
Life's like a box of chocolates, hmmm? Get off the bench.

## 2859. New version of APRSPoint available

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-30 10:59:59 UTC
From: hxc98@yahoo.com
Message-ID: <aa8577c5.0411300259.5e48feb8@posting.google.com>
Source record: 86056

Version 2.1 of APRSPoint is available. It integrates Microsoft MapPoint seamlessly to provide detailed street level support to track other hams all over the world through either RF link or internet. Visit http://www.aprspoint.com for latest info and the holiday special. Thanks.

## 2860. Re: 30 meter qrp vertical

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-30 12:21:28 UTC
From: David Snyder Hale <david@isi.mtwilson.edu.REMOVE>
Message-ID: <cohok8$p35$1@agate.berkeley.edu>
Source record: 86057

A Panfish pole from Cabela's would work nicely for a support.

G. Doughty <ki4bbl@cox.net> wrote:

> Thanks so much. One question, do I use a 25' section of pvc to keep it
> upright? Also, should I trim the vertical or the horizontals for swr?

--
Dave * N3WTK (DM04xf) * http://isi.mtwilson.edu * n3wtk@arrl.net.REMOVE

# 2861. Who has got any experience with InfoRelation and can advice me.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-30 12:28:13 UTC
From: inforelation4@yahoo.com
Message-ID: <6a70aadd.0411300428.48c1b213@posting.google.com>
Source record: 86058

Hallo anybody!

I am a journalist and I am writting an article about a new, interesting, rapidly growing webservices. Now I am collecting the information about InfoRelation.com .
I have found that InfoRelation was mentionned in this forum. So I would like to ask you to send me your opinion about the InfoRelation.com service
and its offer: the process of connecting demand and suply for knowledge, skills etc.

I will be grateful for any opinion (also about the problems with InfoRelation, InfoRelation's competitors etc.)!

Best regards,
Tim Kelly
PS. If there is anybody who earned any money on InfoRelation - please describe me the field of interest in case of which the earning has been arrived at

# 2862. Re: Who has got any experience with InfoRelation and can advice me.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-30 13:40:09 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <coht7p$s6p$1@titan.btinternet.com>
Source record: 86059

> Hallo anybody!
>
> I am a journalist and I am writting an article about a new, interesting,
> rapidly growing webservices. Now I am collecting the information about
> InfoRelation.com .
> I have found that InfoRelation was mentionned in this forum. So I would
> like to ask you to send me your opinion about the InfoRelation.com
> service
> and its offer: the process of connecting demand and suply for knowledge,
> skills etc.
>
> I will be grateful for any opinion (also about the problems with
> InfoRelation, InfoRelation's competitors etc.)!
>
> Best regards,
> Tim Kelly
> PS. If there is anybody who earned any money on InfoRelation - please
> describe me the field of interest in case of which the earning has been
> arrived at

==========

What are YOU hoping to make out of it?

## 2863. What happened to the Nec-List ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-30 14:30:15 UTC
From: 4nec2@gmx.net
Message-ID: <ee90361b.0411300630.7214081a@posting.google.com>
Source record: 86060

Anybody who knows what is happening with the Nec-list at
(http://www.robomod.net/mailman/listinfo/nec-list.

I seem not able to post a message any more. If I do so, I get a reply
back that the message is not posted and that the 'administrator' first
has to 'scan' the message.

However after this reply nothing happens. An email to the Nec-list
administrator is also not answered.

The username and password seem to be OK, because I can enter the
archives without any problems.

Arie.

# 2864. Re: Painting ladder line?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-30 14:33:14 UTC
From: raiar@bbs.galilei.com.nospam
Message-ID: <41ac838c.234278781@news.galilei.com>
Source record: 86061

Hi Bob

Painting won't change any of the properties unless the paint contains metals or heavy carbons.

You might consider Krylon over Rust-Oleum though.
Almost everything I have ever used Rust-Oleum on, it has taken two or more coats and then it peeled off in many spots within the first few months.
A number of years ago we painted two commercial lawn mowers, one with Krylon and the other with Rust-Oleum, both with the same prep before painting.
We had to repaint the Rust-Oleum painted mower the following year, the Krylon mower was never repainted, nor did it need it.

TTUL
Gary

## 2865. Icom TS-50

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-30 17:11:27 UTC
From: Simon Smith <s.Smith@btinternet.com>
Message-ID: <coi9ju$6bo$1@sparta.btinternet.com>
Source record: 86062

I am soon to take the Foundation licence test and I'm considering either an
Icom TS50 or the Icom IC - 703.
I dony know enough yet to come to a decision - What in the opinion of the
newsgroup would be a wise choice for a complete Novice ?
I realise the learning will continue AFTER I get the pass certificate - but
I dont want to make an expensive mistake before I even get started....
Any help would be most welcome....
John

# 2866. Re: Icom TS-50

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-30 17:40:37 UTC
From: Maurice ON4BAM <on4bam@yahoo.com>
Message-ID: <qtbpq0lbehhihht7ve2ns21o86nicvm7jv@4ax.com>
Source record: 86063

On Tue, 30 Nov 2004 17:11:27 +0000 (UTC), "Simon Smith"
<s.Smith@btinternet.com> wrote:

>I am soon to take the Foundation licence test and I'm considering either an
>Icom TS50 or the Icom IC - 703.

I would go for the Icom TS50... unless you mean Kenwood TS-50... then
I would go for that.. ;-)

The TS50 is a great radio but lacks modernday filtering/dsp.

Bye Maurice
--
Hamradio: ON4BAM / M0CIL / 9H3Z http://www.on4bam.com/
Travelstories from Alaska, Scotland, South Africa,Iceland,
Faroe Isl., Australia, Norway, Svalbard and IOTA activations

# 2867. Re: randome wire or MP-1 antenna with FT-980

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-30 17:50:27 UTC
From: Lee Hopper <leehopp@centurytel.net>
Message-ID: <41ACB2E3.9070805@centurytel.net>
Source record: 86064

Glenn wrote:
> I am really new to ham radio and have a couple of questions.ffice).
> After a short while the antenna wire got a bit hot to touch, and
> tingled a bit when I touched it. Is this normal?
Yes - it's not a good idea to touch an antenna when it's transmitting -
especially 100 watts.

> Option 2: I am thinking of getting an MP-1 vertical antenna instead of
> random wire. Can I use the antenna tuner with this?
Yes - although you may not need it: the MP1 has an adjustable coil that
should do the matching for you, rendering the tuner superflous.

Will it heat up?
Shouldn't if it's tuned up right.
> How do I ground it? Do the counterpose wires spread out act as a
> ground?
Yes.

Hi, Glenn -

I hope the experts will have something to say, but someone ought to
mention that you shouldn't expose your officemates to 100W of rf energy.
Can you get that random wire outside?

Those cubicle dividers have metal tops & skeletons, no? Those are no
doubt coupling to the antenna wire if it's draped over them. This just
generally messes up the situation. Another reason to get that wire outside.

The wire heating up is no doubt due to this coupling with office
furnishings. The voltage varies along the wire, and at places it can be
thousands of volts. A metal object in contact with such a spot could arc
with the antenna wire.

An antenna wire should be as high as possible and *in the
clear* (not touching any buildings, tree limbs, lamp posts, etc). That's
why an insulator is put at the end of an antenna wire, with a rope going
the rest of the way to the antenna support (tree, etc.)

The MP1 has been used and it works. Being a shortened vertical, it tends
to radiate mostly upwards on the lower bands. This can be good (40M in
the daytime to talk within a few hundred miles) or bad (40M at night
when you might want to do dx may not be so great). Can you put the MP1
outside, even temporarily? The counterpoise wires constitute the rf
"ground" in that case. They should be cut to 1/4 wave on the lowest band
you want to operate on and fanned out around the base of the antenna.

Please don't hesitate to ask more questions. Hope this helps.

Antenna boys - please chime in!

73 - Lee H, NB7F

# 2868. Re: Icom TS-50

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-30 18:08:58 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <lm3kq0dlkn2015c3srv09aobfd8glt45s4@4ax.com>
Source record: 86065

On Tue, 30 Nov 2004 17:11:27 +0000 (UTC), "Simon Smith"
<s.Smith@btinternet.com> wrote:

> What in the opinion of the
>newsgroup would be a wise choice for a complete Novice ?

Hi John,

I know the TS-50 (Kenwood) and it is a good, small rig. Try to get the companion power supply from Germany (sorry, don't know the product name) which is a switching power supply (equally as small, but suitable and a lot lighter than big linear supplies).

>I realise the learning will continue AFTER I get the pass certificate

The downside with this, or any other "small" rig is that you will indeed be continuing to learn. This is because there's not enough buttons and knobs to go with all the functionality and you have to learn how to navigate their software menus (not always intuitive) and cryptic displays.

There are two roads that this offers. For someone who doesn't want to fiddle with knobs and such, you can figure out the menus, set your options, and simply talk on the rig for ever after. For someone who does want to tune, tweak, and adjust - you really need something bigger; and if that means outside of your budget, it then suggests older.

Another point to consider, if you stay with this hobby long enough, you will eventually get at least two of everything. So don't approach a decision thinking you won't be facing that choice again. As such, buy something affordable that leaves you enough money from your budget to buy the other things that go with it - mike, key, speaker, antenna tuner, power meter, and certainly enough transmission line, wire, then insulators, some rope and pulleys and so on. Oddly enough, most of these secondary items will be with you longer than your rig. Older transistorized rigs that still work, will undoubtedly work for as long as you own them and pass them on.

If you want to bury your hands in the guts, try tube sets. They are bigger yet, and don't mind your first time mistakes on fixing things. Plus all the voltages are much higher, and touching the wrong lead lends a sort of zest to this past time. Cheaper than gambling and you get the thrills of javelin catching without needing to get out of your house.

73's
Richard Clark, KB7QHC

# 2869. Re: Trucker babe antenna topper

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-30 18:27:36 UTC
From: Allodoxaphobia <bit-bucket@config.com>
Message-ID: <slrncqpeso.e7g.bit-bucket@shell.config.com>
Source record: 86066

On 29 Nov 2004 13:02:12 EST, Gary V. Deutschmann, Sr. hath writ:
>
> Instead of searching for Trucker Babe,
> try Naked Lady it might bring up more results.

Oh, gawd! *I should think so!* HI!HI!

Jonesy
--
| Marvin L Jones | jonz | W3DHJ | linux
| Gunnison, Colorado | @ | Jonesy | OS/2 __
| 7,703' -- 2,345m | config.com | DM68mn SK

# 2870. Re: Icom TS-50

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-30 18:59:25 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <coifud$mgd$2@hercules.btinternet.com>
Source record: 86067

> The TS50 is a great radio but lacks modernday filtering/dsp.
>
==========

How much, if any, is digital filtering better than the old-fashioned Xtl
filter.
----
Reg

## 2871. QRP

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-30 19:04:40 UTC
From: Simon Smith <s.Smith@btinternet.com>
Message-ID: <coig88$nii$1@titan.btinternet.com>
Source record: 86068

Is there any advantages/Disadvantages to operating on QRP ?
John

## 2872. QPak tuner comments/reviews?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-30 19:47:48 UTC
From: David Snyder Hale <david@isi.mtwilson.edu>
Message-ID: <coiip4$10sn$1@agate.berkeley.edu>
Source record: 86069
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment

I haven't been able to find any reviews of the Miracle QPak antenna tuner. Does anyone have experience and comments?

Their web page makes it sound like they are finally bringing amateur radio out of the dark ages of tuners, but is it all that?

--
Dave * N3WTK (DM04xf) * http://isi.mtwilson.edu * n3wtk@arrl.net.REMOVE

# 2873. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-30 19:50:18 UTC
From: richardharrison@webtv.net
Message-ID: <29855-41ACCEFA-145@storefull-3254.bay.webtv.net>
Source record: 85973

Roy, W7EL wrote:
"I`m sure that somewhere in the book the author (Chipman) derives SWR in terms of reflection coefficient."

I`ve read, here I believe, that Chipman`s book is one of the "Schaum`s Outline" series. It would need to derive SWR in terms of reflection coefficient to be complete.

Attenuation of a uniform transmission line is a function of the loss per unit length and the total length. A line with SWR has higher voltage and current in spots than a matched line. Thus it has higher loss. Analysis is complicated in lossy lines due to decline in SWR back from the reflection point. If SWR at the reflection point is less than 2:1, added loss due to SWR is hardly detectable. Such a line is considered perfect.

The ARRL Antenna Book has graphs relating SWR to fopward and reflected power readings as given by a Bird wattmeter. The "Antenna Book" also has a graph of additional loss due to standing waves versus the SWR at the load for values between SWR=1.5 and SWR=20.

I don`t have a dog in this fight. There is nothing particularly strange about solutions to equations which describe particular relations on a transmission line. The functions are not erratic but continuous and predictable. Selection of the right formulas is all that`s needed to get the right answer from the right data.

Best regards, Richard Harrison, KB5WZI

# 2874. Re: QRP

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-30 19:51:58 UTC
From: K1NG K&#65533;NG <KK@IOTA.net>
Message-ID: <xc4rd.187418$hj.51029@fed1read07>
Source record: 86070

Advantages
1. Reduced possibility to RFI, TVI to the neighbors
2. An ego booster if you can do the mostest with the leastest
3. A challenge of your skills
4. Fun to be the underdog (for some, others wud rather be top dog)
5. Enhances your skills as it can be more difficult to make contacts
6. You will soon find it is generally easier to make CW QRP contacts -- so enhances your CW skills
7. Equipment is usually cheaper
8. Lot easier to operate on batteries or solar power than 100 watt rig
9. A great brag tape "I worked DXCC QRP" there is an ARRL award for QRPers
10. Fun to calculate miles per watt and improve your record
11. Less chance of frazzling your brain if close to the antenna
12. The dog will probably live if it chews on the antenna
13. Less chance the XYL will complain -- "Ur gettin in the telephone"
14. A snap at the height of the solar cycle on 10 and 12M ( little tougher on the other bands)
15. At the DX club, a big gun flashes a rare QSL card (he/she runs a KW) you show your QRP card - Gotcha
16. Easier to homebrew a QRP rig
17. Meets part 97 for using the lowest power necessary to make a contact (Too many KW's on the band)
18. It is a David and Goliath thing
19. You are only down ~ 2 S-Units compared to running 100 Watts

Disadvantages
1. You can spend days trying to break a pileup of a rare station
2. For the determined and patient only (read that one again)
3. Just plain frustrating when you can hear the a station quite well and they can't hear you
4. Ya better have a real real good antenna and low loss transmission line
5. Tough to be QRP on the low bands (80 and 160M, too much noise)
6. Other Hams will tell you QRP is for sissies ( but the enlightened know better)
7. For the upper bands, at the minimum of the solar cycle -- man ya gotta work work work to get contacts
8. Read number 2 again
9. Read Number 2 again

Off the top o da head answers

--
Gore Rilla -- ARRL QRP award

"Simon Smith" <s.Smith@btinternet.com> wrote in message
news:coig88$nii$1@titan.btinternet.com...
> Is there any advantages/Disadvantages to operating on QRP ?
> John
>

# 2875. Re: Icom TS-50

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-30 19:52:45 UTC
From: Bob Bob <bcnntp@optusnet.com.au>
Message-ID: <elvu72-n7p.ln1@p400bob.lse.com.au>
Source record: 85974

Hi John

A very hard decision indeed as it depends on what you want to do with amateur radio, but need experience to make such a decision!

Have you made contact with other amateurs in your area? Like through a club? You may be able to do hands on comparison of various radios both recent and old. You will also then be able to apply this to understanding what the listed specifications mean and whether they are important or not. (Like good receiver sensitivity on 80M is pretty pointless given the amount of general band noise) If you are comparing DSP the only real good indicator is your own ears!

You could of course buy something super cheap and old, learn from it and then go to something more expensive..

Cheers Bob VK2YQA

Simon Smith wrote:
> I am soon to take the Foundation licence test and I'm considering either an
> Icom TS50 or the Icom IC - 703.
> I dony know enough yet to come to a decision - What in the opinion of the
> newsgroup would be a wise choice for a complete Novice ?
> I realise the learning will continue AFTER I get the pass certificate - but
> I dont want to make an expensive mistake before I even get started....
> Any help would be most welcome....
> John
>
>

# 2876. Re: What happened to the Nec-List ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-30 20:00:53 UTC
From: "J. Mc Laughlin" <jcm@power-net.net>
Message-ID: <10qpkbn30phtn5b@corp.supernews.com>
Source record: 86071

Dear Arie: It has always been a bit tricky to post on that list. I
suspect that the security settings are too high.
The few times that I have managed to post, I received automated messages
complaining about formatting issues that are not under my control.
It continues to be a valuable resource.
73 Mac N8TT

--
J. Mc Laughlin; Michigan U.S.A.
Home: JCM@Power-Net.Net
<4nec2@gmx.net> wrote in message
news:ee90361b.0411300630.7214081a@posting.google.com...
> Anybody who knows what is happening with the Nec-list at
> (http://www.robomod.net/mailman/listinfo/nec-list.
>
> I seem not able to post a message any more. If I do so, I get a reply
> back that the message is not posted and that the 'administrator' first
> has to 'scan' the message.
>
> However after this reply nothing happens. An email to the Nec-list
> administrator is also not answered.
>
> The username and password seem to be OK, because I can enter the
> archives without any problems.
>
> Arie.

# 2877. Will Accept Any Reasonable Offer

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-30 20:03:43 UTC
From: nedrog@aol.comNOSPAM
Message-ID: <20041130150343.21488.00000220@mb-m11.aol.com>
Source record: 85972

QTY DESCRIPTION

1 60 FT ROHN 25g TOWER w/pointed top section

1 ROHN 25g BASE PLATE
1 ROHN 25g, HB25CS, HOUSE BRAKET
1 Icom 551 6m all mode transceiver (works)
1 Icom 211 2m all mode transceiver (works)
1 Heathkit SB200 Amplifier (220v)
1 Ham M Rotator (cked by Norm)
1 Tail-twister Rotator (cked by Norm)
1 Cushcraft R7000 Vertical (40-6)
1 Cushcraft 80m kit for R7000 (never assembled)
1 LJE GP1, RADIAL PLATE FOR 2" MAST, 24 RADIALS
1 Minkota, mdl: 765 MX, 12v remote trolling Motor
(needs new prop)
1 18" Golden Rule for tournament fishing
1pr Replacement 8" Steel Wheels w/rubber tires each wheel will

support up to 60lbs, good for hand truck, etc,
3ea ADULT MDL: KA1, KAPOK BUOYANT VEST, (never in
water), LIFE JACKETS.
1 Micronta FS/SWR Meter
1 B&W Dipole Connector [V shape]
1 Bag of various (approximately 10) Xtals, FT243
variety, HAM band frequencies.
1 3/8x24, Spring mount with 2 springs,
11ea Aluminum panels of sorts, 6"x12"x1/8"
3ea Packages of NICE-DUCT, brown color, 3/8"Hx5/8"Wx60"L, each
package has 5 pc totaling 25 feet.
1 12v WHINCH
2ea 50FT ROLLS OF RG6, 75 OHM COAX WITH "F" CONNECTORS
1 25FT ROLL OF RG6, 75 OHM WITH CONNECTORS
1 CUSHCRAFT BASE RING FOR 10M RINGO
1 SHAKESPEAR FIBERGLASS, 144-174Mhz ANT (MOUNTS ON
AUT0 OR TRK)
1 QUADSTAR 2M HALO
1 Motorola, MITREK, MDL: T81JJA4900BK, WITH CONTROL &
POWER CABLE - NO CONTROL BOX, NO MIC OR BOOK (AS
IS NOT TESTED)
1 Radio Shack, 8", Antenna Mast Wall Mounting BKT
1 Motorola, MICOR, mdl: 02033a, WITH BOTH CONTROL CABLE

& CONTROL HEAD AND POWER CORD (NO MIC OR BOOK)
(AS IS NOT TESTED)

1 AMPEX 8" REEL TO REEL TAPE RECORDER
1 INTERMATIC TIME CLOCK, 110v
1 SCHUMACHER 10/30/50, BATTERY CHARGER, 12v
1 CROUSE-HINDS 3 LAMP, (RED/YELLOW/GREEN), TRAFFIC
SIGNAL - ANTIQUE - WORKS GREAT!
1 AIPHONE AH108, 10W, 8 OHM, HORN SPKR.
43ea INNOVATIVE SIMPLICITY, MDL: CREST, 2-JACK WALL
PLATES WITH THE JACKS FOR TELCO
2ea SMALL PEDESTAL CAMERA MOUNTS
8ea GARDEN HOSE WALL BRACKETS

I am in Montgomery County, Maryland, and would perfer not to have to ship, but
if I do - please figure postage from 20895.

73's

Howard W3CQH

# 2878. Re: QRP

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-30 20:08:18 UTC
From: Lee Hopper <leehopp@centurytel.net>
Message-ID: <41ACD332.9030100@centurytel.net>
Source record: 85975

Simon Smith wrote:
> Is there any advantages/Disadvantages to operating on QRP ?
> John

Hi, John -

If you want a challenge, try qrp. If you want a *real* challenge, try qrp on 160 meters this weekend in the ARRL 160M contest.

You might enjoy reading the qrp-l email reflector - it's the grand dame or qrp lists: <http://mailman.qth.net/pipermail/qrp-l/>

73 - Lee H, NB7F

# 2879. Re: QRP

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-30 20:11:09 UTC
From: Bob Bob <bcnntp@optusnet.com.au>
Message-ID: <un0v72-aap.ln1@p400bob.lse.com.au>
Source record: 85979

Hi Simon

Assuming you are not just talking about the technical "challenge" of operating with low power.

Adv
- Less power consumption
- Less chance of causing TVI/BCI etc
- Transmitters of lower power tend to be cheaper than those of higher power. You can also get away with a less "clean" TX (spurious o/p etc)
- Matching networks etc dont need to be able to withstand as high voltage/power. (Also means cheaper)
- Almost zero chance of RF burns off the TX!
- Can run the setup off batteries for the camping trip away.

Dis
- Generally speaking a bigger investment in antenna height and design is needed. Think about what direction it radiates and keep ground losses to a minimum.
- Signals have more chance of being noisy so you may have to use your ears to do a lot of filtering. This generally means you will have the audio volume higher. (If you have a PC you might like to use it for DSP noise reduction)
- You may have to spend some time supressing local noise noises so you can hear the weaker (QRP) stations.
- In a "dogpile" of stronger stations people wont hear you so well.

If your license allows it you may want to try some of the narrow band keyboarding modes (eg PSK31). You can easily carry on a QSO with 20W all around the world.

Good luck!

Cheers Bob VK2YQA

Simon Smith wrote:
> Is there any advantages/Disadvantages to operating on QRP ?
> John
>
>

# 2880. Re: Icom TS-50

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-30 20:35:14 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41acd77d$1_2@127.0.0.1>
Source record: 85976

Reg Edwards wrote:
> How much, if any, is digital filtering better than the old-fashioned Xtl
> filter.

What makes DSP filtering better than Xtal filters is that it is
programmable, not hardwired. The parameters of a DSP filter are
continuously variable although not usually implemented that way
in most amateur radio receivers. Given the processing power
necessary for a filter, one can theoretically have any of a
near-infinite number of filter configurations.

Reg, you could probably program a DSP audio filter that runs on
a PC and outputs audio through the sound card like the ClearSpeech
speaker systems. PSK-31 software packages for the PC certainly contain
a number of DSP filters and other DSP algorithms.

Note that Digital Signal Processing is not limited to filters.
--
73, Cecil http://www.qsl.net/w5dxp

# 2881. Re: QRP

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-30 20:39:38 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41acd887$1_1@127.0.0.1>
Source record: 85977

Simon Smith wrote:
> Is there any advantages/Disadvantages to operating on QRP ?

Advantage: Bragging rights! "I worked Easter Island with ONE WATT!"

Disadvantage: "Life is too short for QRP." :-)
--
73, Cecil http://www.qsl.net/w5dxp

# 2882. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-30 20:50:56 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41acdb2c$1_2@127.0.0.1>
Source record: 85978

Richard Harrison wrote:
> I don`t have a dog in this fight.

Neither do I, Richard. The ARRL Antenna Book seems to assume that the loss in a line is proportional to forward power plus reflected power. If reflected power equals zero, then the losses are matched line losses. I posted an example through Google to which nobody responded so I will re-post it here:
**********
Here's an example. Assume 100w is delivered to the load for both the matched and unmatched conditions. Assume 3dB matched line loss in the transmission line. Assume an SWR of 5.83:1 (rho=0.707) at the load for the mismatched condition.

Forward 200w------------3dB loss-------------Matched Load 100w

Forward 400w------------3dB loss-------------Mismatched Load 100w
Reflected 50w both Forward 200w
directions Reflected 100w

The ARRL equations give an additional loss of 5.44dB.
**********
It is obvious (to me) that if there are reflections at the load, then more power must be sourced in order to deliver the same amount of power to the load. But I am pretty simple-minded about obvious things. :-)
--
73, Cecil http://www.qsl.net/w5dxp

## 2883. Re: QRP

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-30 21:22:09 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <coioa1$5po$1@hercules.btinternet.com>
Source record: 85980

"Simon Smith" wrote -

> Is there any advantages/Disadvantages to operating on QRP ?
> John
>
No disadvantages. Great fun. A great advantage is a reduction in your electricity bills.

## 2884. Re: QPak tuner comments/reviews?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-30 22:23:02 UTC
From: Jon <g2fhf@g3sds.org.uk>
Message-ID: <coirs8$uia$1@news7.svr.pol.co.uk>
Source record: 85981

David

It sounds an awful lot of money for something that you can make for less than ï¿½5. I will hapilly make you one that will work just as well for ï¿½30 or if you have to buy one go for the Emtech ZM2. They are half the price and work fantastically well. I bought one direct from the States for about ï¿½60 and it is great up to 20W.

Jon G2FHF

# 2885. Re: Icom TS-50

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-30 22:50:45 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <g0kkq01a7sn2htgjimtsr5i6mupl8gf621@4ax.com>
Source record: 85982

On Tue, 30 Nov 2004 18:59:25 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>How much, if any, is digital filtering better than the old-fashioned Xtl
>filter.

Hi Reggie,

DSP, depending on the artistry of the programmer, can do very well
with removing periodic (coherent) noises like birdies and heterodynes.
It can also reduce some incoherent noise. Some filters are adaptable
in that they can recognized (mostly coherent) noises and automatically
reduce them.

As for filtering, DSP filters are capable of skirt selectivity that is
impossible to achieve with any other means. Here too, they are user
configurable (if the option is available) to tailor the skirt slopes
and bandwidth independently and maintain a very low pass band ripple.
All of this is performed through discrete Fourier math, with the
routines in software called IIR or FIR filters. IIR is Infinite and
FIR is Finite Impulse Response.

The software routine, tied to an ADC chip, takes samples and feeding a
delay line, taps that line to feed the same signal (in proportions)
back to the input. Some of this might be compared to the Analog
BiQuad filters but this delay line I speak of actually exists entirely
in software as an algorithm (although early examples in a hybrid
design did this in hardware with greater sophistication than the
BiQuads).

The downside is the quality of the audio has that hollow pipe sound or
exhibits obvious sampling clock signal fed into the audio stream. As
with all digital design, it must be preceded by analog filters to
prevent spectrum folding (high frequency components being translated
into low frequency products) and post filters to smooth out the
product (if the software can't cope).

The sampling rate is the limiting factor. Early DSPs sampling at
least twice the highest audio frequency expected (the Nyquist limit)
established the clock rate and the processor had to perform all the
instructions between those samples. Later DSPs pushed the sampling
rate higher such that you could design filters in the IF range. This
was the second generation DSP of about 10 years ago. Of course, that
IF range was in the 10s of KHz, perhaps as high as 100KHz.
Traditional Analog IF design in this range was already perfectly
suited to razor thin filters with steep skirts, so the advantage was

in the adaptability.

Cheap, external, audio DSPs easily make up for any receiver's lack and the IF DSP is arguably worth the cost for the beginner.

73's
Richard Clark, KB7QHC

# 2886. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-11-30 23:30:43 UTC
From: richardharrison@webtv.net
Message-ID: <29854-41AD02A3-541@storefull-3254.bay.webtv.net>
Source record: 85983

Cecil, W5DXP wrote:
"Assume 3 dB matched line loss in the transmission line. Assume an SWR of 5.83:1 (rho=0.707) at the load for the mismatched condition."

Using 100 watts forward and 50 watts reflected into the "Antenna Book" graph gives an SWR of 5 or 6. If I had my Bird SWR sliderule at hand, I could be more precise without lifting a calculator.

According to the "additional line loss graph", this SWR adds about 2 dB to a matched loss of 3 dB for a total loss of about 5 dB with such a mismatch.

Best regards, Richard Harrison, KB5WZI

# 2887. Re: QRP

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-01 00:22:40 UTC
From: John Moriarity <k6qq@hdo.net>
Message-ID: <10qq3mhp78kefe@corp.supernews.com>
Source record: 85984

"Cecil Moore" <w5dxp@hotmail.com> wrote > Disadvantage: "Life is too short for QRP." :-)

Close, Cecil. Actually, life is *not long enough* for QRP.
You have so much fun you wish it would go on forever. ;-)

73, John - K6QQ

# 2888. Re: QPak tuner comments/reviews?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-01 00:25:12 UTC
From: David Snyder Hale <david@isi.mtwilson.edu.REMOVE>
Message-ID: <coj318$171f$1@agate.berkeley.edu>
Source record: 85985

Jon,

I do like to make my own equipment; in fact, I was about to put
together a little T match tuner when I came across the Qpak and read of
its low loss. But do tell, where can I find the parts for $5? Or even
$30? You generally can't get an enclosure and two BNCs for less than
$5. Yes, yes, you can stumble across deals, but I'd like to put
something together within a reasonable amount of time.

Jon <g2fhf@g3sds.org.uk> wrote:

> It sounds an awful lot of money for something that you can make for less
> than 5. I will hapilly make you one that will work just as well for 30
> or if you have to buy one go for the Emtech ZM2. They are half the price
> and work fantastically well. I bought one direct from the States for
> about 60 and it is great up to 20W.
> Jon G2FHF

--
Dave * N3WTK (DM04xf) * http://isi.mtwilson.edu * n3wtk@arrl.net.REMOVE

## 2889. Re: QPak tuner comments/reviews?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-01 00:50:29 UTC
From: dplatt@radagast.org
Message-ID: <10qq5alo5o827a4@corp.supernews.com>
Source record: 85986

In article <coj318$171f$1@agate.berkeley.edu>,
David Snyder Hale <david@isi.mtwilson.edu.REMOVE> wrote:

>> It sounds an awful lot of money for something that you can make for less
>> than 5. I will hapilly make you one that will work just as well for 30
>> or if you have to buy one go for the Emtech ZM2. They are half the price
>> and work fantastically well. I bought one direct from the States for
>> about 60 and it is great up to 20W.

>I do like to make my own equipment; in fact, I was about to put
>together a little T match tuner when I came across the Qpak and read of
>its low loss. But do tell, where can I find the parts for $5? Or even
>$30? You generally can't get an enclosure and two BNCs for less than
>$5. Yes, yes, you can stumble across deals, but I'd like to put
>something together within a reasonable amount of time.

I'd be more comfortable with their claims of high efficiency, low
loss, and wide matching range if they actually provided some numbers.
It's true that some link-coupled tuners (e.g. a well-done Z-match)
have good matching range, but others (e.g. the Johnson Matchbox) have
a reputation for having a relatively limited matching range. The
devil's in the details.

As to losses: as I understand it, in a typical T-match tuner, most of
the losses occur in the coil, with only a small fraction of the loss
being in the capacitors. The claim of low loss in the "FlatPak"
variable caps may very well be quite true, but may also not be all
that relevant when comparing the QPak to more traditional tuners.

The "FlatPak" caps look interesting. I'd guess that they're a form of
butterfly cap, with fixed connections to one or two layers of
butterfly plates, plus and a single rotating stator. Maybe a very
narrow plate plate spacing and some form of insulating dielectric
(Teflon sheet)? This would allow for relatively high maximum
capacitance, low minimum capacitance, shallow depth, and reasonable
maximum standoff voltage. The sealing and gasketing of the caps may
very well be a necessity... you really wouldn't want to get dust or
dirt in between the plates and dielectric!

[A guy in our local ham club showed off a built-completely-from-scratch
T-match tuner last year, with disc-shaped caps built along these same
lines and a homemade roller inductor. Very atypical-looking device,
striking and quite beautiful. It beat out my own project to take
first place in the competition, and it certainly deserved the win!]

The toroidal coils in the QPak look nicely done, and I'd guess that
their power handling capacity is well beyond the 25-to-50-watt rating
of the tuner. I'd guess that the tuner's power handling capability is
limited by the maximum voltage across the caps, when working into
difficult loads. Arcing over an air-variable cap can be spectacular,
but I suspect that arcing over one of the FlatPak caps might burn the
dielectric badly enough to permanently damage it.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

# 2890. FS: Cushcraft 17B2 BOOMER 2 meter

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-01 00:51:00 UTC
From: ars_wa8mea@netzero.com
Message-ID: <9ae88a70.0411301650.7594ab36@posting.google.com>
Source record: 85987

For Sale: Cushcraft two meter 17B2 17 element BOOMER antenna.
Have you ever ordered something from the cheese and sausage catalog,
and once you got it, the food looked A LOT smaller in real life than
in the catalog?? Well this antenna photo was THE OPPOSITE. It is
BIGGER than the photo! Hi. I have tried EVERYTHING on my small lot to
get enough area. Just too many trees to cut down, and not worth the
price of hiring a tree service. I am just going to a smaller beam.
THIS WAS NEVER USED! It is assembled, if you want to pick up and haul
back on a flat bed. Otherwise, we will dismantle and put in original
box. New its around $275 plus shipping. I will let go for $199 plus
$14.95 shipping. AND I will toss in one of my Yo-Yo-Deluxe Portable
Dipole antennas, too! ($29.95 value...FREE!) You are welcome to call
and use your plastic through my companys merchant account. (DWM
Communications - http://qth.com/dwm) 73 - Bill - WA8MEA -
1.517.563.2613

## 2891. Re: QPak tuner comments/reviews?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-01 01:34:22 UTC
From: Bob Miller <rmiller47@satx.rr.com>
Message-ID: <8f7qq0t2fh31h6d4lm92b17q5909t2pava@4ax.com>
Source record: 85988

On Tue, 30 Nov 2004 19:47:48 +0000 (UTC), David Snyder Hale
<david@isi.mtwilson.edu> wrote:

>I haven't been able to find any reviews of the Miracle QPak antenna
>tuner. Does anyone have experience and comments?
>
>Their web page makes it sound like they are finally bringing amateur
>radio out of the dark ages of tuners, but is it all that?

Does this look like $150 worth of parts?

http://www.miracleantenna.com/QPackinside.htm

???

Bob
k5qwg

## 2892. Re: QPak tuner comments/reviews?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-01 02:41:46 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10qqbrm44manr9f@corp.supernews.com>
Source record: 85989

It's not obvious to me why the reactance of the link needs to be 50 ohms (for a 50 ohm resistive source) to be "ideal for the maximum transfer of power" in a conventional link coupled tuner, as VA2ERY says on the web page. Maximum transfer of power requires only that the input and output impedances be properly (conjugately) matched (and, of course, loss to be minimized), and that doesn't require the link reactance to be any particular value.(*) The argument for the supposedly wonderful performance of the tuner seems to revolve around solving this "problem", and it falls pretty flat if it's not a problem at all.

Can someone enlighten me as to why the link reactance needs to be 50 ohms?

(*) The capacitor and inductor voltage and current can be traded against each other by changing the L/C ratio. Depending on the particular components used, there'll be some ratio at which loss is minimum. But this depends on the components, and not some universal value. And it would have no effect I can see on the transfer of power, which requires only a conjugate match.

Roy Lewallen, W7EL

Bob Miller wrote:
> . . .

> http://www.miracleantenna.com/QPackinside.htm

## 2893. Sucoflex and wireless adapter

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-01 03:06:27 UTC
From: John
Message-ID: <odOdnYspbKquqDDcRVn-oA@comcast.com>
Source record: 85990

I was trying to add an SMA bulkhead to my dlink dwl-120 802.11b wireless adapter but i cut the antenna lead they had on it too short and screwed up soldering and the lead broke and now I don't have any antenna lead to re-solder. Does anyone know what kind of wire they use on external usb adapters for the antenna lead? Is it sucoflex? It was very thin wires surrounded by a sheilding material then surounded by some thready type material to give it some stiffness.

-Thanks
John

# 2894. Re: Sucoflex and wireless adapter

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-01 06:08:47 UTC
From: Lee Hopper <leehopp@centurytel.net>
Message-ID: <R82dnXN3XdpvwjDcRVn-1g@centurytel.net>
Source record: 85991

John wrote:
> I was trying to add an SMA bulkhead to my dlink dwl-120 802.11b wireless adapter but i cut the antenna lead they had on it too short and screwed up soldering and the lead broke and now I don't have any antenna lead to re-solder. Does anyone know what kind of wire they use on external usb adapters for the antenna lead? Is it sucoflex? It was very thin wires surrounded by a sheilding material then surounded by some thready type material to give it some stiffness.
>
> -Thanks
> John
>
>
Could it be litz wire? <http://www.mwswire.com/litzmain.htm> for one.

-NB7F

## 2895. Re: QRP

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-01 09:11:54 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <315gogF37fsf0U3@individual.net>
Source record: 85992

You distinguish yourself from the CBers-Masquerading-As-Radio-Hans
who buy their gear from a shop ready-made and then have to send it
back there if ever it needs maintenance or calibration.

"Simon Smith" <s.Smith@btinternet.com> wrote in message
news:coig88$nii$1@titan.btinternet.com...
> Is there any advantages/Disadvantages to operating on QRP ?
> John
>
>

# 2896. Re: Will Accept Any Reasonable Offer

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-01 14:09:59 UTC
From: "Randy A. Hefner" <randy_NO_SPAM_PLEASE_@murs-usa.com>
Message-ID: <3161a4F37s0v5U1@individual.net>
Source record: 85993

"w3cqh" <nedrog@aol.comNOSPAM> wrote in message

"Will Accept Any Reasonable Offer"

By who's definition?

---
Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.802 / Virus Database: 545 - Release Date: 11/26/2004

# 2897. Re: QRP

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-01 14:14:30 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41adcfc1$1_3@127.0.0.1>
Source record: 85994

John Moriarity wrote:
> "Cecil Moore" <w5dxp@hotmail.com> wrote > Disadvantage: "Life is too short
> for QRP." :-)
>
> Close, Cecil. Actually, life is *not long enough* for QRP.
> You have so much fun you wish it would go on forever. ;-)

Yep, and that's about how long it takes to complete a
schedule. :-)
--
73, Cecil http://www.qsl.net/w5dxp

# 2898. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-01 16:17:05 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41adec7d$1_1@127.0.0.1>
Source record: 85995

Reg Edwards wrote:
> For example, in a large number of cases the single output quantity is
> related to line loss, such as insertion loss in dB, or load power in watts,
> or transmission efficiency in percent, or percent of input power lost in the
> line itself.
>
> But before this can be calculated it is essential to calculate input
> impedance Rin+jXin for given attenuation in dB or nepers, given phase shift
> in radians and given terminating impedance Rt+jXt. Then include generator
> impedance Rg+jXg and internal generator volts. Having done this you are
> half-way through.

Well Reg, I have a question about transmission line losses expressed in dB.
As you know, furnishing line losses in dB implies a power ratio. For a matched
line, transmission line losses in dB will be based on the ratio of power
not delivered to the load Vs the power being sourced. For instance, if
100 watts is being sourced and 95 watts are accepted by the load, then
5 watts of the 100 watts are line losses, or ~0.21 dB.

But to what power are the transmission losses referenced when reflected
power is allowed to be incident upon the source. For instance, assume
that at the source, we are reading 100 watts forward power and 85 watts
reflected power. That means the source is supplying a NET power of
15 watts to the system. If 10 watts of the total NET power of 15 watts
is being accepted by the load (implying 5 watts of line losses) does
that mean the power ratio for line losses is 33%, or 1.25 dB of losses?

Note from the matched line example above where 5 watts of line losses are
0.21 dB to the mismatched line example where 5 watts of line losses are
1.25 dB (for the same forward power of 100w), the same magnitude of loss
appears much higher as a dB value referenced to NET source power.
--
73, Cecil http://www.qsl.net/w5dxp

# 2899. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-01 16:55:35 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <6usrq09eorcesdea8p5o9rvkshntfhautd@4ax.com>
Source record: 85996

On Wed, 01 Dec 2004 10:17:05 -0600, Cecil Moore <w5dxp@hotmail.com>
wrote:
>As you know, furnishing line losses in dB implies a power ratio.
dB is dimensionless. Such generalizations forced into logic become
naive paradoxes:
>Note from the matched line example above where 5 watts of line losses are
>0.21 dB to the mismatched line example where 5 watts of line losses are
>1.25 dB (for the same forward power of 100w), the same magnitude of loss
>appears much higher as a dB value referenced to NET source power.
with boundary conditions being violated with the substitution of
Mismatch Loss for Dissipative Loss - and done poorly too.

When I had you thank Bart for his teachings, you should have examined
the consequences of his lesson not simply his correction of your
error.

## 2900. What causes this?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-01 16:58:35 UTC
From: Ken Bessler <kg0wx@NOSPAMyahoo.com>
Message-ID: <ZKmrd.9946$3I.8119@okepread01>
Source record: 85997

I just put up an inverted V for 30 meters.
I started out with each leg being 24'0". This
gave me a low SWR at 9.5665 mhz which
works out to 229.6 instead of the usual 234/F.

As I trimmed, I decided to keep track of how
much I trimmed and what the nnn/F number
would be. As I got closer to my goal of 10.15,
the number went down, eventually ending up
at 227.28/10.1955=22.292' Also, the 2:1 swr
bandwidth went up - it started at 567 kc and
ended up at 655 kc.

Either way, I got the antenna up and it's working
fine - I'm just curious why the formula for length
and the bandwidth changed as the antenna got
shorter.

Ken KG0WX

# 2901. Re: FS: sma-to-bnc custom fit rubber covered antenna adapter

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-01 17:42:09 UTC
From: Bob Dixon <dixon.8@osu.edu>
Message-ID: <dixon.8-FFF57F.12420901122004@charm.magnus.acs.ohio-state.edu>
Source record: 85998
Cross-posted to: rec.radio.swap,rec.radio.scanner,rec.radio.amateur.equipment,rec.radio.amateur.antenna

Adding any adaptor would seem to significantly move the radiating
portion of the antenna further away from the "ground plane" of the radio.
This should affect the operation of the antenna adversely. Comments?

Bob

In article <12235960.0411251622.2fb9c0f3@posting.google.com>,
gulyas@earthlink.net (Stephen G. Gulyas) wrote:

> Do you have a need for a high-quality SMA-to-BNC rubber covered
> factory look antenna adapter that is custom made to fit and protect
> your H.T. or scanner radio?
>
> Adapter allows you to:
> Quickly change antennas to base, mobile or different style use.
> Use the more popular and wider selection available of BNC antennas.
> Prevent chassis connector wear or from coming loose due to antenna
> changes.
>
> Adapter features:
> Gold plated contacts with a teflon insulator.
> A low profile design with a rubber covering for a factory antenna
> look.

## 2902. Re: What causes this?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-01 18:11:03 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <gt1sq0diq3d58u694vqtcia3sft99hj343@4ax.com>
Source record: 85999

On Wed, 1 Dec 2004 10:58:35 -0600, "Ken Bessler"
<kg0wx@NOSPAMyahoo.com> wrote:

>works out to 229.6 instead of the usual 234/F.

> ending up at 227.28

>I'm just curious why the formula for length
>and the bandwidth changed as the antenna got
>shorter.

Hi Ken,

The normal 5% shortening (234/F) is due to what is called "end
effect." Your ends are closer together than for the standard dipole,
and get closer yet when the V is shortened - I suppose.

73's
Richard Clark, KB7QHC

# 2903. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-01 18:11:24 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41ae0747$1_4@127.0.0.1>
Source record: 86000

Richard Clark wrote:
> Cecil Moore <w5dxp@hotmail.com> wrote:
>>As you know, furnishing line losses in dB implies a power ratio.
>
> dB is dimensionless. Such generalizations forced into logic become
> naive paradoxes:

Uhhhhhhh Richard, a power ratio *IS* dimensionless. Any ratio of like
quantities is dimensionless. dB is proportional to the log of the ratio
of two quantities. That ratio, e.g. of two powers, is dimensionless.

>>Note from the matched line example above where 5 watts of line losses are
>>0.21 dB to the mismatched line example where 5 watts of line losses are
>>1.25 dB (for the same forward power of 100w), the same magnitude of loss
>>appears much higher as a dB value referenced to NET source power.
>
> with boundary conditions being violated with the substitution of
> Mismatch Loss for Dissipative Loss - and done poorly too.

I certainly didn't intend to do that. The dissipative loss in each
of the examples was 5 watts. The NET source power was 100 watts in
the matched case and 15 watts in the mismatched case.

> When I had you thank Bart for his teachings, you should have examined
> the consequences of his lesson not simply his correction of your
> error.

I'm asking an honest question, Richard. Why can't you provide an
honest answer?
--
73, Cecil http://www.qsl.net/w5dxp

## 2904. Re: What causes this?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-01 18:15:14 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41ae082d$1_4@127.0.0.1>
Source record: 86001

Ken Bessler wrote:

> I just put up an inverted V for 30 meters.
> I started out with each leg being 24'0". This
> gave me a low SWR at 9.5665 mhz which
> works out to 229.6 instead of the usual 234/F.

Just about right for insulated wire. Did you use
insulated wire?
--
73, Cecil http://www.qsl.net/w5dxp

# 2905. Re: What causes this?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-01 18:20:30 UTC
From: Noise From Afar <NFA@wayoutdare.net>
Message-ID: <PXnrd.190854$hj.41636@fed1read07>
Source record: 86002

See URL:
http://www.geocities.com/Augusta/7117/antenna.html

Sez 4 Percent smaller for the Inverted Vee

And end insulators will affect the dimensions

Cut em long -- trim em up

--
ruido de ic&#65533;gnito

"Ken Bessler" <kg0wx@NOSPAMyahoo.com> wrote in message
news:ZKmrd.9946$3I.8119@okepread01...
>I just put up an inverted V for 30 meters.
> I started out with each leg being 24'0". This
> gave me a low SWR at 9.5665 mhz which
> works out to 229.6 instead of the usual 234/F.
>
> As I trimmed, I decided to keep track of how
> much I trimmed and what the nnn/F number
> would be. As I got closer to my goal of 10.15,
> the number went down, eventually ending up
> at 227.28/10.1955=22.292' Also, the 2:1 swr
> bandwidth went up - it started at 567 kc and
> ended up at 655 kc.
>
> Either way, I got the antenna up and it's working
> fine - I'm just curious why the formula for length
> and the bandwidth changed as the antenna got
> shorter.
>
> Ken KG0WX
>
>

## 2906. Re: What causes this?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-01 18:28:52 UTC
From: Ken Bessler <kg0wx@NOSPAMyahoo.com>
Message-ID: <C3ord.9948$3I.9284@okepread01>
Source record: 86003

"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:41ae082d$1_4@127.0.0.1...
> Ken Bessler wrote:
>
>> I just put up an inverted V for 30 meters.
>> I started out with each leg being 24'0". This
>> gave me a low SWR at 9.5665 mhz which
>> works out to 229.6 instead of the usual 234/F.
>
> Just about right for insulated wire. Did you use
> insulated wire?
> --
> 73, Cecil http://www.qsl.net/w5dxp

Nope, I used leftovers from the two 150' rolls I
bought to make my 160m antenna. It's your
standard issue 14/7 stranded bare copper.

Ken KG0WX

# 2907. Re: What causes this?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-01 18:44:20 UTC
From: Noise From Afar <NFA@wayoutdare.net>
Message-ID: <9iord.190861$hj.117277@fed1read07>
Source record: 86004

The inverted vee is about 3 - 5% shorter than a dipole at the same
frequency.
Check the Antenna books or do a Google

--
ruido de ic&#65533;gnito

"Ken Bessler" <kg0wx@NOSPAMyahoo.com> wrote in message
news:ZKmrd.9946$3I.8119@okepread01...
>I just put up an inverted V for 30 meters.
> I started out with each leg being 24'0". This
> gave me a low SWR at 9.5665 mhz which
> works out to 229.6 instead of the usual 234/F.
>
> As I trimmed, I decided to keep track of how
> much I trimmed and what the nnn/F number
> would be. As I got closer to my goal of 10.15,
> the number went down, eventually ending up
> at 227.28/10.1955=22.292' Also, the 2:1 swr
> bandwidth went up - it started at 567 kc and
> ended up at 655 kc.
>
> Either way, I got the antenna up and it's working
> fine - I'm just curious why the formula for length
> and the bandwidth changed as the antenna got
> shorter.
>
> Ken KG0WX
>
>

# 2908. Re: FS: sma-to-bnc custom fit rubber covered antenna adapter

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-01 18:59:16 UTC
From: Me <Me@shadow.orgs>
Message-ID: <Me-E864E1.09592101122004@netnews.worldnet.att.net>
Source record: 86005
Cross-posted to: rec.radio.swap,rec.radio.scanner,rec.radio.amateur.equipment,rec.radio.amateur.antenna

In article
<dixon.8-FFF57F.12420901122004@charm.magnus.acs.ohio-state.edu>,
Bob Dixon <dixon.8@osu.edu> wrote:

> Adding any adaptor would seem to significantly move the radiating
> portion of the antenna further away from the "ground plane" of the radio.
> This should affect the operation of the antenna adversely. Comments?
>
> Bob
>

Adding an adapter to a Transmission Line will have no effect, except to
add insertion loss of the adapter. Adding an adapter to the antenna
itself MAY cause the antenna charactoristics to change. Most SMA and BNC
connecters are used in Transmission Lines, and not antennas themselves.
The OP doesn't really explain where the adapter is to be used. Most
small handheld devices with external antenna connections have those
connection in the Transmission Line and not in the antenna itself.

Me

# 2909. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-01 19:07:59 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <gd5sq0dvg09nu74938enajrbc1r9hjsm44@4ax.com>
Source record: 86006

On Wed, 01 Dec 2004 12:11:24 -0600, Cecil Moore <w5dxp@hotmail.com>
wrote:
>I certainly didn't intend to do that.
The dog ate your homework? Shoot the dog, that excuse is too common.

# 2910. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-01 19:12:39 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41ae15a4$1_5@127.0.0.1>
Source record: 86007

Richard Clark wrote:
> When I had you thank Bart for his teachings, you should have examined
> the consequences of his lesson not simply his correction of your
> error.

dB was not mentioned at all in Bart's posting so your comment
appears to be just an ad hominem shot in the dark. My news-
server indicates that Bart has not posted to this thread.

Let me ask my question again.

Given the dB equation for power, 10*log(P1/P2), when we say
the transmission line losses are 1 dB, what is P2 in the
denominator if it is not NET source power? There has to be
a standard. I just am not sure what that standard is. My
question is: What is the standard if not NET source power?

The magnitude of power available for being lost in transmission
line losses certainly cannot exceed the forward power minus the
reflected power, i.e. cannot exceed the NET source power. It seems
to follow that P2 in the equation must necessarily be NET power so
that transmission line losses are a percentage of the total power
available to be lost in transmission line. What am I missing?

In the previous examples, the 5 watt loss in the matched case was
5% of the NET source power of 100w. In the mismatched case, the 5
watt loss was 33% of the NET source power of 15w. It seems to follow
that the line loss in the matched case is about 0.2 dB of the 100w
of power available to be lost while the line loss in the mismatched
case is about 1.2 dB of the 15w of power available to be lost.

I'm still trying to explain the difference between Bob's dB loss
and the ARRL's dB loss. So an obvious question arose: Are they
using the same P2 in the denominator of the dB equation?
--
73, Cecil http://www.qsl.net/w5dxp

# 2911. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-01 19:22:02 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41ae17d6_4@127.0.0.1>
Source record: 86008

Richard Clark wrote:

> Cecil Moore <w5dxp@hotmail.com> wrote:
>>I certainly didn't intend to do that.
>
> The dog ate your homework?

Just the opposite. No homework associated with dB was assigned
so there was never any homework about dB for the dog to eat.
--
73, Cecil http://www.qsl.net/w5dxp

# 2912. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-01 19:28:38 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <kd6sq0527r5iibsmksled0kqj42p8q8vd6@4ax.com>
Source record: 86009

On Wed, 01 Dec 2004 13:12:39 -0600, Cecil Moore <w5dxp@hotmail.com>
wrote:
> What am I missing?
>... It seems to follow
Violation of initial conditions do not allow anything to follow but
distorted logic. And the example is poorly done (incorrect).

You are missing coming to terms with Bart's lesson - still.

# 2913. Re: Icom TS-50

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-01 19:36:54 UTC
From: kelly@dvol.com
Message-ID: <d22b54c3.0412011136.6d0e322f@posting.google.com>
Source record: 86010

"Simon Smith" <s.Smith@btinternet.com> wrote in message
news:<coi9ju$6bo$1@sparta.btinternet.com>...
> I am soon to take the Foundation licence test and I'm considering either an
> Icom TS50 or the Icom IC - 703.
> I dony know enough yet to come to a decision - What in the opinion of the
> newsgroup would be a wise choice for a complete Novice ?
> I realise the learning will continue AFTER I get the pass certificate - but
> I dont want to make an expensive mistake before I even get started....
> Any help would be most welcome....

I've had a Kenwood TS-50 for years. It's a basic, very rugged and reliable good performer. Other HF xcvrs come and go here but my TS-50 is a keeper. I've used it for both fixed station and pack 'n go operations and have never had a problem with it. Which is more than I can say about some other much more expensive xcvrs I've used.

I don't have any hands-on experience specifically with an IC-703 but I have used other Icom compact xcvrs. I'm completely underwhelmed by their strong-signal handling capability. While the TS-50 is not a "competition grade" xcvr it's receiver front-end is much better than the any of front ends of compacted Icom xcvrs I've used so far. As a CW dxer front end performance matters particularly in the pileups so I'm rather fussy about how much overload and intermod I'll put up with. The TS-50 is acceptable here on this basis but the baby Icoms are not.

The 703 is a nice package which includes an autotuner, a memory keyer and here in the U.S. it can operate on six meters. It's also considerably more complex than the TS-50. For those who are big into fiddling with bells and whistles. The TS-50 on the other hand is a bare-bones basic HF xcvr without a tuner, keyer or 6M.

In your case as a soon-to-become 10 watt Foundation licensee you might look ahead to the day when you upgrade and will be allowed to use much higher powers. With a 703 you'll still be stuck with ten watts out. With a TS-50 you'd be able change one menu setting and go from 10W to 100+W out on the spot.

Hre's a couple links to user reviews which you might find interesting.

TS-50: http://www.eham.net/reviews/detail/411xed

IC-703 http://www.eham.net/reviews/detail/2787

> John

w3rv

# 2914. Re: Icom TS-50

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-01 19:41:46 UTC
From: kelly@dvol.com
Message-ID: <d22b54c3.0412011141.2294923c@posting.google.com>
Source record: 86011

Maurice ON4BAM <on4bam@yahoo.com> wrote in message
news:<qtbpq0lbehhihht7ve2ns21o86nicvm7jv@4ax.com>...
> On Tue, 30 Nov 2004 17:11:27 +0000 (UTC), "Simon Smith"
> <s.Smith@btinternet.com> wrote:
>
> >I am soon to take the Foundation licence test and I'm considering either an
> >Icom TS50 or the Icom IC - 703.
>
> I would go for the Icom TS50... unless you mean Kenwood TS-50... then
> I would go for that.. ;-)
>
> The TS50 is a great radio but lacks modernday filtering/dsp.

Which is an *advantage* for a beginner.

> Bye Maurice

w3rv

# 2915. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-01 20:07:38 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <col8aa$2qc$1@sparta.btinternet.com>
Source record: 86012

Cecil asked,

> But to what power are the transmission losses referenced when reflected
> power is allowed to be incident upon the source.

==========

Cecil, when there are several different power levels at different places in a circuit, it is entirely up to you how you reference one to another in dB. It's just a matter of convenience with the particular problem in hand.

But things are certain to become confused and indeterminate when your imagination allows two or more different power levels at the same place at the same time. For example: the so called forward and reflected power levels.

Imagination is assisted by the existence of meters which claim to measure these imaginary forward and reflected powers. Actually they do nothing of the sort. They even purport to make measurements on non-existent transmission lines.

Reflected volts - yes!
Reflected current - yes!
Reflected power - NO!

(PS : You can't deal with reflections without involving Distance, Velocity, Place and Time.)
----
Reg.

# 2916. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-01 20:47:55 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41ae2c01$1_4@127.0.0.1>
Source record: 86013

Richard Clark wrote:
> You are missing coming to terms with Bart's lesson - still.

It's a pretty simple question that, so far, no one has
answered, not even Bart. dB is always a comparison of
one thing to another. To what is the line loss in watts
being compared?
--
73, Cecil http://www.qsl.net/w5dxp

# 2917. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-01 20:55:37 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41ae2dc9$1_4@127.0.0.1>
Source record: 86014

Reg Edwards wrote:
> Cecil, when there are several different power levels at different places in
> a circuit, it is entirely up to you how you reference one to another in dB.

Now Reg, that just cannot be true. Otherwise, there would exist no
conventions. It's a simple question: When you tell me that the losses
in a transmission line with reflections are 2 dB, exactly what power
are you referencing those losses against?

> Reflected volts - yes!
> Reflected current - yes!
> Reflected power - NO!

Reflected volts and reflected current existing without any associated
joules/sec???? I've heard of waves without any trace of energy before,
Reg, but I certainly didn't expect to hear miracle metaphysics from you.

Whatever happened to V*I*cos(theta) being power? The power companies
would be surprised to learn that they are not transferring any joules/sec
to their customers. Do you think I can use your argument to get out of
paying my electric bill?
--
73, Cecil http://www.qsl.net/w5dxp

# 2918. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-01 21:05:54 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <a4csq0linkt9d25002gdscmdjhrob5eqcf@4ax.com>
Source record: 86015

On Wed, 01 Dec 2004 14:47:55 -0600, Cecil Moore <w5dxp@hotmail.com>
wrote:
>To what is the line loss in watts being compared?
That was established long ago in this thread, Bob expressed no
interest in Mismatch Loss. You can, of course, compare it to a light
bulb if you wish - life is like a box of chocolates isn't it?

# 2919. Re: Dumb Question Dept. - Antenna Angle

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-01 21:44:20 UTC
From: Ian Jackson <IanJacksonRemoveThisBit@g3ohx.demon.co.uk>
Message-ID: <ICzPXcG0sjrBFwW7@g3ohx.demon.co.uk>
Source record: 86016

>
>
>SOH CAH TOA
>
>Sin = Opposite over Hypotenuse
>Cos = Adjacent over Hypotenuse
>Tan = Opposite over Adjacent

Some People Have (sin = perpendicular/hypotenuse)
Curly Black Hair (cosine = base/hypotenuse)
Though Painted Brown (tangent = perpendicular/base)
I've never forgotten it.
Ian.
--

# 2920. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-01 22:01:39 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10qsfq4sukd64cc@corp.supernews.com>
Source record: 86017

Line loss itself is a comparison of two powers, those entering and leaving the line. The line loss in watts is the power entering the line at the input end minus the power leaving the line at the output end. Line loss in dB is 10 times the base 10 logarithm of the power entering the line at the input end divided by the power leaving the line at the output end. These definitions can be and are used for any two-port device.

If you truly didn't know this, it's surely because you've befuddled yourself with your forward and reflected waves of average power to the point that you've lost complete track of the fundamentals.

Roy Lewallen, W7EL

Cecil Moore wrote:

> Richard Clark wrote:
>
>> You are missing coming to terms with Bart's lesson - still.
>
>
> It's a pretty simple question that, so far, no one has
> answered, not even Bart. dB is always a comparison of
> one thing to another. To what is the line loss in watts
> being compared?
> --
> 73, Cecil http://www.qsl.net/w5dxp

# 2921. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-01 22:50:00 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41ae4894$1_2@127.0.0.1>
Source record: 86018

Roy Lewallen wrote:
> Line loss itself is a comparison of two powers, those entering and
> leaving the line. The line loss in watts is the power entering the line
> at the input end minus the power leaving the line at the output end.

Here's an example: The source is a signal generator equipped with a
circulator-resistor that dissipates all reflected power.

100w SGCR--------------feedline------------------mismatched load

The signal generator is sourcing 100 watts. The load is dissipating
25 watts. The circulator resistor is dissipating 50 watts. The
feedline is dissipating 25 watts. What is the feedline loss in dB?

Is that 25 watts lost from the signal generator output power of
100 watts or lost from the NET power available which is 50 watts?
--
73, Cecil http://www.qsl.net/w5dxp

# 2922. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-01 23:06:43 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <sbjsq09m3m7v7fkfic14ill25jkisfsh4d@4ax.com>
Source record: 86019

On Wed, 01 Dec 2004 16:50:00 -0600, Cecil Moore <w5dxp@hotmail.com>
wrote:
>What is the feedline loss in dB?
The same. You haven't substituted it with a lightbulb have you?

## 2923. Re: QRP

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-01 23:07:58 UTC
From: John Moriarity <k6qq@hdo.net>
Message-ID: <10qsjmckv3plfc6@corp.supernews.com>
Source record: 86020

```
>> Close, Cecil. Actually, life is *not long enough* for QRP.
>> You have so much fun you wish it would go on forever. ;-)
>
> Yep, and that's about how long it takes to complete a
> schedule. :-)

Telephones are for schedules ;-)

73, John - K6QQ
```

# 2924. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-01 23:10:04 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <coljgi$1j7$1@news.service.uci.edu>
Source record: 85922

Richard Clark wrote:
> On Wed, 01 Dec 2004 10:17:05 -0600, Cecil Moore <w5dxp@hotmail.com>
> wrote:
>
>>As you know, furnishing line losses in dB implies a power ratio.
>
> dB is dimensionless. Such generalizations forced into logic become
> naive paradoxes:
>
>>Note from the matched line example above where 5 watts of line losses are
>>0.21 dB to the mismatched line example where 5 watts of line losses are
>>1.25 dB (for the same forward power of 100w), the same magnitude of loss
>>appears much higher as a dB value referenced to NET source power.
>
> with boundary conditions being violated with the substitution of
> Mismatch Loss for Dissipative Loss - and done poorly too.

Well, I think he's assuming dissipative loss in both cases. But the 5 watt numbers were assumed, and there's nothing to indicate that the same piece of transmission line would produce these losses under the described conditions. Seems likely that the line losing 33% would have to be quite a bit lossier. As for the second case, we don't know what the source power was, so it presumably could also be a matched case at lower power. The example, unfortunately, compared apples to oranges.

My take on dB attenuation figures in wire and cable table data:
dB loss = 10*log(power dissipated in the line / (power dissipated in the line + power dissipated at load))

By way of reference, according to an old Standard Wire and Cable data book of mine, the attenuation factor in dB per hundred feet is:

A=4.35*(Rsubt/Zo) + 2.78*sqrt(E)*p*F

Rsubt = .1*(1/d + 1/D)*sqrt(F) (total line resistance in ohms per 1000 ft) [*Note: there might be a misprint here. The .1 would seem to indicate a conversion to ohms per hundred feet.]

E = dielectric constant

p = power factor of the dielectric

F = frequency in MHz

d = outside dia. center conductor [no units are indicated]

D = inside dia. outer conductor [no units are indicated]

The manual also discusses attenuation as a funtion of VSWR. But they do not imply that the additional attenuation is due to anything but reflection. In other words, there is no indication that reflected 'power' causes additional dissipative losses.

And.....I think Reg makes a good point about reflected power.

_____
$0.02

AC6XG

# 2925. Re: FS: sma-to-bnc custom fit rubber covered antenna adapter

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-01 23:11:40 UTC
From: Joel Kolstad <JKolstad71HatesSpam@Yahoo.Com>
Message-ID: <K5GdnfLi-5wf0jPcRVn-uQ@comcast.com>
Source record: 86021
Cross-posted to: rec.radio.swap,rec.radio.scanner,rec.radio.amateur.equipment,rec.radio.amateur.antenna

"Bob Dixon" <dixon.8@osu.edu> wrote in message
news:dixon.8-FFF57F.12420901122004@charm.magnus.acs.ohio-state.edu...
> Adding any adaptor would seem to significantly move the radiating
> portion of the antenna further away from the "ground plane" of the radio.
> This should affect the operation of the antenna adversely. Comments?

What makes you think the effect should be adverse? When you consider all the different radios that a given antenna could be connected to, the change from radio to radio is going to be far greater than what a 3/8" adapter is going to do (consider its electrical length at 2m...). In fact, I would hope that most HT antennas weren't meant to be used with counterpoises, but now that I think about it, I don't really know whether or not that's the case. Anyone?

I mean... the radiation pattern of a wire cut 'to length' stuck into a BNC connector on the top of an HT is going to be very seriously distorted relative to the same wire above a near-infinite ground plane.

Cell phones often use sleeve dispole antennas to avoid the need for a counterpoise...

---Joel

# 2926. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-01 23:20:05 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41ae4fb3$1_1@127.0.0.1>
Source record: 85923

Richard Clark wrote:

> Cecil Moore <w5dxp@hotmail.com> wrote:
>>What is the feedline loss in dB?
>
> The same. You haven't substituted it with a lightbulb have you?

The same as what? The feedline loss is 25 watts. What is the feedline loss in dB? Please give me a number instead of a hard time.

A signal generator is pouring 100 watts into the line because its source is seeing 50 ohms. The circulator load resistor is dissipating 50 watts of that source power. The load is dissipating 25 watts and the feedline is dissipating 25 watts. What is the feedline loss in dB?

Is the dB loss in the feedline calculated using the signal generator output power of 100 watts or is it calculated using the 50 watts of NET power available as it would be (by definition) if the source were a ham transmitter?

Why is it so hard to get a straight answer to this simple question?
--
73, Cecil http://www.qsl.net/w5dxp

# 2927. Re: QRP

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-01 23:30:48 UTC
From: Gary Cavie <m0jjh@despammed.com>
Message-ID: <MPG.1c1864883f2c7f06989688@news.individual.net>
Source record: 85924

In article <315gogF37fsf0U3@individual.net>, me@privacy.net says...
> You distinguish yourself from the CBers-Masquerading-As-Radio-Hans
> who buy their gear from a shop ready-made and then have to send it
> back there if ever it needs maintenance or calibration.
>

http://tinyurl.com/63dbl

# 2928. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 00:14:34 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41ae5c66$1_5@127.0.0.1>
Source record: 85926

Jim Kelley wrote:
> Well, I think he's assuming dissipative loss in both cases. But the 5
> watt numbers were assumed, and there's nothing to indicate that the same
> piece of transmission line would produce these losses under the
> described conditions.

The two transmission lines are completely separate and have absolutely
nothing to do with each other. The conditions are as stated.
--
73, Cecil http://www.qsl.net/w5dxp

# 2929. Re: What causes this?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 00:14:58 UTC
From: chuck <teclaw@earthlink.net>
Message-ID: <68trd.864$Va5.195@newsread3.news.atl.earthlink.net>
Source record: 85925

Just curious, Ken. Your question seems to be about resonance at
different frequencies. Yet your reported measurements were about SWR.
Are you equating minimum SWR with resonant frequency?

Chuck
NT3G

Ken Bessler wrote:
> I just put up an inverted V for 30 meters.
> I started out with each leg being 24'0". This
> gave me a low SWR at 9.5665 mhz which
> works out to 229.6 instead of the usual 234/F.
>
> As I trimmed, I decided to keep track of how
> much I trimmed and what the nnn/F number
> would be. As I got closer to my goal of 10.15,
> the number went down, eventually ending up
> at 227.28/10.1955=22.292' Also, the 2:1 swr
> bandwidth went up - it started at 567 kc and
> ended up at 655 kc.
>
> Either way, I got the antenna up and it's working
> fine - I'm just curious why the formula for length
> and the bandwidth changed as the antenna got
> shorter.
>
> Ken KG0WX
>
>

# 2930. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 00:28:17 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10qsod440pbmd53@corp.supernews.com>
Source record: 85928

You really don't know?

The power into the input end of the transmission line is 50 watts.
(Surely you can subtract the circulator resistor power from the source
power to find the power entering the transmission line. Can't you?)

The power exiting the load end of the feedline is 25 watts.

Therefore the transmission line loss is 25 watts.

It does seem that you've gotten yourself confused by your bouncing waves
of average power.

Roy Lewallen, W7EL

Cecil Moore wrote:
> Roy Lewallen wrote:
>
>> Line loss itself is a comparison of two powers, those entering and
>> leaving the line. The line loss in watts is the power entering the
>> line at the input end minus the power leaving the line at the output end.
>
>
> Here's an example: The source is a signal generator equipped with a
> circulator-resistor that dissipates all reflected power.
>
> 100w SGCR--------------feedline------------------mismatched load
>
> The signal generator is sourcing 100 watts. The load is dissipating
> 25 watts. The circulator resistor is dissipating 50 watts. The
> feedline is dissipating 25 watts. What is the feedline loss in dB?
>
> Is that 25 watts lost from the signal generator output power of
> 100 watts or lost from the NET power available which is 50 watts?
> --
> 73, Cecil http://www.qsl.net/w5dxp
>

# 2931. Re: Icom TS-50

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 00:28:39 UTC
From: "Dee D. Flint" <deeflint01@comcast.net>
Message-ID: <7d2dnfpeAOgo_DPcRVn-iQ@comcast.com>
Source record: 85927

"Brian Kelly" <kelly@dvol.com> wrote in message
news:d22b54c3.0412011141.2294923c@posting.google.com...
> Maurice ON4BAM <on4bam@yahoo.com> wrote in message
news:<qtbpq0lbehhihht7ve2ns21o86nicvm7jv@4ax.com>...
> > On Tue, 30 Nov 2004 17:11:27 +0000 (UTC), "Simon Smith"
> > <s.Smith@btinternet.com> wrote:
> >
> > >I am soon to take the Foundation licence test and I'm considering
either an
> > >Icom TS50 or the Icom IC - 703.
> >
> > I would go for the Icom TS50... unless you mean Kenwood TS-50... then
> > I would go for that.. ;-)
> >
> > The TS50 is a great radio but lacks modernday filtering/dsp.
>
> Which is an *advantage* for a beginner.
>

Definitely. I've seen my students totally overwhelmed by the fancier
radios. If they haven't got one already, I recommend that they start with
something simple, basic, and used while they get their feet wet.

Dee D. Flint, N8UZE

# 2932. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 00:28:58 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10qsoebpktrgv76@corp.supernews.com>
Source record: 85929

Cecil Moore wrote:
> . . .
> Why is it so hard to get a straight answer to this simple question?

The answer is simple. 25 watts.

Roy Lewallen, W7EL

## 2933. Is this jack wired correctly?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 02:15:51 UTC
From: Ken <cprstn54zz@att.net>
Message-ID: <hgusq0pvd82lveppcskpgkbblq2fndbmjr@4ax.com>
Source record: 85930

Please see J4 for a TenTec RX-320 -- copied from the TenTec web site:
http://home.att.net/~cprstn54/J4.JPG

Am I right that this a a stereo jack with the mono signal on ring?

If so, why would anyone wire up a jack this way? A mono plug would
short the signal to ground.

Ken KC2JDY

Ken
(to reply via email
remove "zz" from address)

## 2934. Indoor AM Ant

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 02:17:59 UTC
From: Diane <dke@mn.rr.com>
Message-ID: <rXurd.77710$ye4.67402@twister.rdc-kc.rr.com>
Source record: 85931

Is there any half-way decent indoor ant I can use on an old Hallicrafters
S-40B? I mainly want to extend reception for nightime MW. Thanks.
-Phil

# 2935. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 02:33:14 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41ae7ce7_1@127.0.0.1>
Source record: 85932

Roy Lewallen wrote:
> Cecil Moore wrote:
>> Why is it so hard to get a straight answer to this simple question?
>
> The answer is simple. 25 watts.

That was a given, Roy. The question is: what is the feedline
loss in dB?

What do you think about Jim's definition of the power ratio
being (feedline losses)/(feedline losses + load power)?
--
73, Cecil http://www.qsl.net/w5dxp

# 2936. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 02:42:45 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <gvvsq05e5pl54bjmti5vacae5u1m3n130t@4ax.com>
Source record: 85933

On Wed, 01 Dec 2004 20:33:14 -0600, Cecil Moore <w5dxp@hotmail.com>
wrote:
>what is the feedline loss in dB?
The rest of the world computes it at "per 100 feet." Why change?

# 2937. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 02:46:35 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41ae8009$1_5@127.0.0.1>
Source record: 85934

Roy Lewallen wrote:

> You really don't know?

You really don't know how to calculate the dB loss in the feedline?
If you do, why haven't you done so?

> The power into the input end of the transmission line is 50 watts.
> (Surely you can subtract the circulator resistor power from the source
> power to find the power entering the transmission line. Can't you?)

That's *NET* power. The power into the transmission line is the 100w of
measured source power. The power dissipated in the circulator resistor is
the measured power out of the transmission line reflected from the mismatched
load. If you say to calculate the dB loss in the feedline based on the NET
power, that's what I will do.

I am trying to understand the difference in Bob's results and the
results using the ARRL equations. The magnitude of NET power to which
the feedline losses are ratio'ed may be the key to understanding that
difference.

> The power exiting the load end of the feedline is 25 watts.

That was given.

> Therefore the transmission line loss is 25 watts.

That was given but didn't answer the question about dB.

> It does seem that you've gotten yourself confused by your bouncing waves
> of average power.

Nope, you seem to be confused about what the question was. You keep
answering with what was given in the original example. The question
is: What is the *dB* loss in the feedline? Using NET power input, the
dB loss in the feedline is 3 dB, i.e. half of (100w-50w) = 50 watts.
I'm satisfied with that definition but an wondering why nobody else
has said the feedline losses equal 3 dB. What was so difficult about
that?

Incidentally, that figure agrees with Jim's equation which doesn't
even mention source power.
--
73, Cecil http://www.qsl.net/w5dxp

# 2938. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 02:50:17 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41ae80e6$1_5@127.0.0.1>
Source record: 85935

Richard Clark wrote:

> Cecil Moore <w5dxp@hotmail.com> wrote:
>>what is the feedline loss in dB?
>
> The rest of the world computes it at "per 100 feet." Why change?

Is that the reason you make all your feedlines exactly 100
feet long? :-)
--
73, Cecil http://www.qsl.net/w5dxp

## 2939. Re: What causes this?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 03:01:51 UTC
From: Ken Bessler <kg0wx@NOSPAMyahoo.com>
Message-ID: <wAvrd.10388$3I.1265@okepread01>
Source record: 85936

"chuck" <teclaw@earthlink.net> wrote in message
news:68trd.864$Va5.195@newsread3.news.atl.earthlink.net...
> Just curious, Ken. Your question seems to be about resonance at different
> frequencies. Yet your reported measurements were about SWR. Are you
> equating minimum SWR with resonant frequency?
>
> Chuck
> NT3G

No. I've been down that road before - an antenna can pose a
200 ohm impedence at resonant frequency resulting in a SWR
of 4:1. I'm simply trying to get the lowest SWR in the middle of
the target range.

Ken KG0WX

# 2940. Re: Is this jack wired correctly?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 03:14:05 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <com1va$bnc$1@news.service.uci.edu>
Source record: 85938

Ken wrote:

> Please see J4 for a TenTec RX-320 -- copied from the TenTec web site:
> http://home.att.net/~cprstn54/J4.JPG
>
> Am I right that this a a stereo jack with the mono signal on ring?
>
> If so, why would anyone wire up a jack this way? A mono plug would
> short the signal to ground.
>
> Ken KC2JDY
>
>
> Ken
> (to reply via email
> remove "zz" from address)

Hi Ken,

If you use a mono plug, just push it in part way - to the first "click".
If it's a good Switchcraft jack, the tip of your plug should engage the
'ring' contact just fine.

73, Jim AC6XG

# 2941. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 03:23:46 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10qt2m3mcg4moc4@corp.supernews.com>
Source record: 85937

50 watts is entering the line, and 25 watts is exiting. The line loss is 3 dB. Surely you're able to make this calculation yourself.

I don't feel a need for a definition of a "power ratio". What you've defined is indeed the ratio of two powers, but it escapes me of what use it is except perhaps to cause confusion.

Roy Lewallen, W7EL

Cecil Moore wrote:

> Roy Lewallen wrote:
>
>> Cecil Moore wrote:
>>
>>> Why is it so hard to get a straight answer to this simple question?
>>
>>
>> The answer is simple. 25 watts.
>
>
> That was a given, Roy. The question is: what is the feedline
> loss in dB?
>
> What do you think about Jim's definition of the power ratio
> being (feedline losses)/(feedline losses + load power)?
> --
> 73, Cecil http://www.qsl.net/w5dxp

# 2942. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 03:34:52 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10qt3atm3pv98b3@corp.supernews.com>
Source record: 85939

Only you could take such a simple concept as power loss in a two port device and muddle it with bouncing waves of average power.

I didn't explicitly give the loss in dB because I thought that you would be able to do it yourself. You seem to be able to, but for some reason regard it as some kind of major operation. I don't know how you do it, but here's how I do.

From my previous posting, the power into the line is 50 watts and the power out is 25 watts.

To find the loss in dB, take the ratio of input to output power, that is, 50 divided by 25, to get 2. Now take the base ten logarithm of that. (The Log key on a calculator is what I use for this complex operation. I get about 0.301. Finally, multiply that by 10, to get 3.01 dB. 3 is close enough for most of us.

Roy Lewallen, W7EL

Cecil Moore wrote:

> Roy Lewallen wrote:
>
>> You really don't know?
>
>
> You really don't know how to calculate the dB loss in the feedline?
> If you do, why haven't you done so?
>
>> The power into the input end of the transmission line is 50 watts.
>> (Surely you can subtract the circulator resistor power from the source
>> power to find the power entering the transmission line. Can't you?)
>
>
> That's *NET* power. The power into the transmission line is the 100w of
> measured source power. The power dissipated in the circulator resistor is
> the measured power out of the transmission line reflected from the
> mismatched
> load. If you say to calculate the dB loss in the feedline based on the NET
> power, that's what I will do.
>
> I am trying to understand the difference in Bob's results and the
> results using the ARRL equations. The magnitude of NET power to which
> the feedline losses are ratio'ed may be the key to understanding that
> difference.
>

>> The power exiting the load end of the feedline is 25 watts.
>
>
> That was given.
>
>> Therefore the transmission line loss is 25 watts.
>
>
> That was given but didn't answer the question about dB.
>
>> It does seem that you've gotten yourself confused by your bouncing
>> waves of average power.
>
>
> Nope, you seem to be confused about what the question was. You keep
> answering with what was given in the original example. The question
> is: What is the *dB* loss in the feedline? Using NET power input, the
> dB loss in the feedline is 3 dB, i.e. half of (100w-50w) = 50 watts.
> I'm satisfied with that definition but an wondering why nobody else
> has said the feedline losses equal 3 dB. What was so difficult about
> that?
>
> Incidentally, that figure agrees with Jim's equation which doesn't
> even mention source power.
> --
> 73, Cecil http://www.qsl.net/w5dxp

# 2943. Re: Indoor AM Ant

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 04:14:29 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <ADwrd.71599$IQ.20179@bignews6.bellsouth.net>
Source record: 85940

"Diane" <dke@mn.rr.com> wrote in message
news:rXurd.77710$ye4.67402@twister.rdc-kc.rr.com...
> Is there any half-way decent indoor ant I can use on an old Hallicrafters
> S-40B? I mainly want to extend reception for nightime MW. Thanks.
> -Phil
>

The longest piece of wire you can run - into the attic if possible
and an antenna tuner may help

---
Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.799 / Virus Database: 543 - Release Date: 11/19/2004

# 2944. Re: Indoor AM Ant

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 04:56:15 UTC
From: Howard <mensch90249@yahoo.com>
Message-ID: <9k7tq0lodp4it14jt13c0goe465vdrfca4@4ax.com>
Source record: 85941

On Thu, 02 Dec 2004 02:17:59 GMT, "Diane" <dke@mn.rr.com> wrote:

>Is there any half-way decent indoor ant I can use on an old Hallicrafters
>S-40B? I mainly want to extend reception for nightime MW. Thanks.
>-Phil
>
The half-way decent indoor antenna I am familiar with from Radio Shack
is no longer available. However, TERK makes a similar product, the
Advantage which can be seen from this site:
http://www.terk.com/products.html#amfm

# 2945. Re: Icom TS-50

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 05:02:46 UTC
From: AaronJ <noemail@noemail.com>
Message-ID: <gj6tq0p8vogo3gg301dc4jlmdmds4fsleh@4ax.com>
Source record: 85942

kelly@dvol.com (Brian Kelly) wrote:
>I've had a Kenwood TS-50 for years. It's a basic, very rugged and
>reliable good performer.

I'll second that. My TS50 is ten years old this year. For several years (94 thru 99) it was permanently mounted /m (actually bolted with large bolts to deter theft) to the top of my dashboard, usually sitting directly in the Arizona desert sun. Never had a problem. These days it sits pretty much unused as a backup rig, but still works just fine. My only complaint with that rig was that the sidetone level could only be adjusted internally. Fortunately it wasn't too hard to add that knob...

# 2946. Re: Indoor AM Ant

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 05:10:10 UTC
From: Diane <dke@mn.rr.com>
Message-ID: <Ssxrd.106867$T02.30602@twister.rdc-kc.rr.com>
Source record: 85943

So would a random wire HF tuner like the MFJ-16010 be what I need or do
antiques require something specific?
Thanks, Phil
"Hal Rosser" <hmrosser@bellsouth.net> wrote in message
news:ADwrd.71599$IQ.20179@bignews6.bellsouth.net...
>
> "Diane" <dke@mn.rr.com> wrote in message
> news:rXurd.77710$ye4.67402@twister.rdc-kc.rr.com...
>> Is there any half-way decent indoor ant I can use on an old Hallicrafters
>> S-40B? I mainly want to extend reception for nightime MW. Thanks.
>> -Phil
>>
>
> The longest piece of wire you can run - into the attic if possible
> and an antenna tuner may help
>
>
>
> ---
> Outgoing mail is certified Virus Free.
> Checked by AVG anti-virus system (http://www.grisoft.com).
> Version: 6.0.799 / Virus Database: 543 - Release Date: 11/19/2004
>
>

# 2947. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 05:27:25 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <com9t3$h9d$1@news.service.uci.edu>
Source record: 85945

Roy Lewallen wrote:

> Only you could take such a simple concept as power loss in a two port
> device and muddle it with bouncing waves of average power.
>
> I didn't explicitly give the loss in dB because I thought that you would
> be able to do it yourself. You seem to be able to, but for some reason
> regard it as some kind of major operation. I don't know how you do it,
> but here's how I do.
>
> From my previous posting, the power into the line is 50 watts and the
> power out is 25 watts.

I think the source of part of the confusion here is that some people apparently interpret the 'forward power' reading on their meter to mean the power into their transmission line.

The confusion I think stems from the contention that any 'reflected power' (unfortunate nomenclature IMO) is first sourced and then after reflection returned back into the source, or to a circulator load as the case may be. The latter case is certainly correct. The former is phenomenologically problematic.

73, Jim AC6XG

## 2948. links

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 05:36:59 UTC
From: tomjohnson2323@yahoo.com
Message-ID: <1101965819.816277.61030@z14g2000cwz.googlegroups.com>
Source record: 85944

http://www.oldironlinks.com/

# 2949. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 06:03:42 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <sdbtq0p1omrbpnvb0n6tjbjule81jptmn2@4ax.com>
Source record: 85946

On Wed, 01 Dec 2004 21:27:25 -0800, Jim Kelley <jwkelley@nospam.edu>
wrote:

>The confusion I think stems from the contention that any 'reflected
>power' (unfortunate nomenclature IMO) is first sourced and then after
>reflection returned back into the source, or to a circulator load as the
>case may be. The latter case is certainly correct. The former is
>phenomenologically problematic.

Hi Jim,

By that same logic it follows that the power "into" the transmission
line was in fact never "into" the line at all but into the circulator
input, and any power finding its way into the circulator load also
never found its way into the line, but was merely reflected at the
circulator/line interface.

Hence, the power loss of the line (in dB) is
the Same.

Hence any discussion of line loss and circulators, by omitting the
circulator, is a flawed argument of line loss.

73's
Richard Clark, KB7QHC

## 2950. Re: What causes this?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 06:45:48 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <10qteh12g3of31c@corp.supernews.com>
Source record: 85947

Ken Bessler wrote:
> I just put up an inverted V for 30 meters.
> I started out with each leg being 24'0". This
> gave me a low SWR at 9.5665 mhz which
> works out to 229.6 instead of the usual 234/F.
>
> As I trimmed, I decided to keep track of how
> much I trimmed and what the nnn/F number
> would be. As I got closer to my goal of 10.15,
> the number went down, eventually ending up
> at 227.28/10.1955=22.292' Also, the 2:1 swr
> bandwidth went up - it started at 567 kc and
> ended up at 655 kc.
>
> Either way, I got the antenna up and it's working
> fine - I'm just curious why the formula for length
> and the bandwidth changed as the antenna got
> shorter.
>
> Ken KG0WX
>
>
234/f is just a starting point.
Dave WD9BDZ

# 2951. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 06:46:22 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10qtei07cc8nt53@corp.supernews.com>
Source record: 85948

The concepts of "forward" and "reflected" power are sometimes (but not often) useful, but have to be carefully confined to a very specific set of conditions and applications. When you start thinking of them as real packets of power bouncing around inside and outside a cable, you can easily be led into a number of traps which you can get out of only by distorting reality and ultimately reaching conclusions which are more and more wrong.

I strongly suggest forgetting completely about "forward" and "reverse" power. If you must deal with directional waves, look at forward and reverse voltage and current waves. Superimpose them as necessary, and when you're done, calculate power from the result. Trying to separate moving packets of average power will eventually force you into reaching wrong conclusions, or at least to serious confusion.

The whole issue of power loss is extremely simple, and it provides a good example of how trying to invent these moving packets of average power can lead to unnecessary complication and confusion.

Roy Lewallen, W7EL

Jim Kelley wrote:
>
>
> Roy Lewallen wrote:
>
>> Only you could take such a simple concept as power loss in a two port
>> device and muddle it with bouncing waves of average power.
>>
>> I didn't explicitly give the loss in dB because I thought that you
>> would be able to do it yourself. You seem to be able to, but for some
>> reason regard it as some kind of major operation. I don't know how you
>> do it, but here's how I do.
>>
>> From my previous posting, the power into the line is 50 watts and the
>> power out is 25 watts.
>
>
> I think the source of part of the confusion here is that some people
> apparently interpret the 'forward power' reading on their meter to mean
> the power into their transmission line.
>
> The confusion I think stems from the contention that any 'reflected
> power' (unfortunate nomenclature IMO) is first sourced and then after
> reflection returned back into the source, or to a circulator load as the

> case may be. The latter case is certainly correct. The former is
> phenomenologically problematic.
>
> 73, Jim AC6XG
>
>

## 2952. Re: What causes this?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 08:07:36 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <zyaXO9DI1srBFAzu@ifwtech.co.uk>
Source record: 85949

David G. Nagel wrote:
>Ken Bessler wrote:
>> I just put up an inverted V for 30 meters.
>> I started out with each leg being 24'0". This
>> gave me a low SWR at 9.5665 mhz which
>> works out to 229.6 instead of the usual 234/F.
>> As I trimmed, I decided to keep track of how
>> much I trimmed and what the nnn/F number
>> would be. As I got closer to my goal of 10.15,
>> the number went down, eventually ending up
>> at 227.28/10.1955=22.292' Also, the 2:1 swr
>> bandwidth went up - it started at 567 kc and
>> ended up at 655 kc.
>> Either way, I got the antenna up and it's working
>> fine - I'm just curious why the formula for length
>> and the bandwidth changed as the antenna got
>> shorter.
>> Ken KG0WX
>>
>234/f is just a starting point.

The "starting point" in question was a low 40m dipole, strung in the back alley of the old ARRL HQ building.

For any other antenna, anywhere else in the universe, the "magic number 234" is going to be slightly different.

The difference in SWR bandwidth between 2:1 points is a bit more complicated, and probably can't be explained in a one-liner. It will be mostly determined by the interplay between two factors:
1. What the resonant impedance is (in relation to 50 ohms), which determines the minimum SWR.
2. How quickly the reactive part of the feedpoint impedance changes with frequency, for different dipole lengths.

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

## 2953. Re: What causes this?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 10:19:49 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10qtr26dtqmv65a@corp.supernews.com>
Source record: 85950

You've gotten a number of good answers, but maybe I can still add a little helpful information.

The resonant length and the bandwidth of an antenna are determined by some basic electromagnetic principles. Although simple in concept, the exact solution for the impedance (and therefore the resonant frequency and bandwidth) of even an elementary dipole is actually very complex. The most common method involves solution of a triple integral equation, which can't be done directly at all, but requires a computer to numerically approximate the result.(*) The formulas you see in handbooks are just a rough approximation that's more-or-less good over a limited range of conditions. The actual resonant frequency and bandwidth are affected by wire diameter, height above ground, and angle between the wires, as well as just the wire length. And the relationships aren't really simple at all.

So the bottom line is that the formulas work well enough to get you into the ballpark, from which you've usually got to do some trimming -- just as you did. You can't expect more than that from them.

Readily available, inexpensive or free, computer programs can do the complex calculations from fundamental electromagnetic principles with rather astounding accuracy, in a small fraction of a second for a simple antenna. The computed results can still differ from reality, though, due to differences between the model antenna and the real one, like nearby objects or wire insulation not included in the model, wire sag, capacitance of end insulators, common mode feedline current, and so forth. But they'll still get you much closer than the simple handbook formulas. However, the simple formulas and a bit of cut and try are perfectly adequate for many simple antennas, and might easily be faster in the long run for someone not familiar with the programs.

(*) Before the ready availability of computers, many different methods were devised to approximate the solution, with varying degrees of complexity and accuracy.

Roy Lewallen, W7EL

Ken Bessler wrote:
> I just put up an inverted V for 30 meters.
> I started out with each leg being 24'0". This
> gave me a low SWR at 9.5665 mhz which
> works out to 229.6 instead of the usual 234/F.
>
> As I trimmed, I decided to keep track of how
> much I trimmed and what the nnn/F number

> would be. As I got closer to my goal of 10.15,
> the number went down, eventually ending up
> at 227.28/10.1955=22.292' Also, the 2:1 swr
> bandwidth went up - it started at 567 kc and
> ended up at 655 kc.
>
> Either way, I got the antenna up and it's working
> fine - I'm just curious why the formula for length
> and the bandwidth changed as the antenna got
> shorter.
>
> Ken KG0WX
>
>

# 2954. Re: Indoor AM Ant

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 13:58:11 UTC
From: Bob Miller <rmiller47@satx.rr.com>
Message-ID: <0j7uq0dvvecfq55mambt57uqd76et55q64@4ax.com>
Source record: 85891

On Thu, 02 Dec 2004 05:10:10 GMT, "Diane" <dke@mn.rr.com> wrote:

>So would a random wire HF tuner like the MFJ-16010 be what I need or do
>antiques require something specific?
>Thanks, Phil

that tuner matches a random wire for frequencies from 1.8 megacycles
up through 30 megacycles. if that's the range you're going to be
listening in on your S-40B, it should work fine.

bob
k5qwg

>"Hal Rosser" <hmrosser@bellsouth.net> wrote in message
>news:ADwrd.71599$IQ.20179@bignews6.bellsouth.net...
>>
>> "Diane" <dke@mn.rr.com> wrote in message
>> news:rXurd.77710$ye4.67402@twister.rdc-kc.rr.com...
>>> Is there any half-way decent indoor ant I can use on an old Hallicrafters
>>> S-40B? I mainly want to extend reception for nightime MW. Thanks.
>>> -Phil
>>>
>>
>> The longest piece of wire you can run - into the attic if possible
>> and an antenna tuner may help
>>
>>
>>
>> ---
>> Outgoing mail is certified Virus Free.
>> Checked by AVG anti-virus system (http://www.grisoft.com).
>> Version: 6.0.799 / Virus Database: 543 - Release Date: 11/19/2004
>>
>>
>

# 2955. Re: What causes this?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 14:05:19 UTC
From: chuck <chuck@nospam.net>
Message-ID: <ziFrd.1363$Va5.619@newsread3.news.atl.earthlink.net>
Source record: 85886

Ken, I guess I'm still confused.

As I understand it, one cannot reliably determine the exact resonance of a dipole by finding the point of minimum SWR. Until this measurement issue is resolved, there would seem to be little benefit to seeking an explanation of why the formula appeared not to work.

It is probably too late now, but if you had used an impedance bridge (MFJ or Autek, for example) you could have found resonance at the point of zero reactance. All within the limits of the instruments, of course.

Some of the posts suggest other reasons why the formula might not work, but it is not yet evident to me that it didn't work.

Sorry my earlier post was not more clear. (I'm even sorrier for this post if you actually used an impedance bridge! Hi.)

73,

Chuck
NT3G

# 2956. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 14:20:03 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41af2298$1_5@127.0.0.1>
Source record: 85967

Roy Lewallen wrote:
> 50 watts is entering the line, and 25 watts is exiting. The line loss is
> 3 dB. Surely you're able to make this calculation yourself.

Surely you can appreciate the potential for one person to use the
signal generator output power as the reference for the dB loss
in the transmission line while another person may, as you do,
reference the line losses to the difference between the signal
generator output power and the power being dissipated in the
circulator load.

I suspect Bob and the ARRL are using different reference powers
in their calculations. My technician at Intel would have reported
the 25 watts of feedline loss above referenced to the signal
generator output power of 100 watts as was customary.

> I don't feel a need for a definition of a "power ratio". What you've
> defined is indeed the ratio of two powers, but it escapes me of what use
> it is except perhaps to cause confusion.

Huh???? A "power ratio" is the *DEFINITION* of dB as applied to power.
Talking about dB is meaningless unless the two powers are defined.

A direct quote from _Reference_Data_For_Radio_Engineers_

"By *definition*, number of dB = 10*log(P1/P2)"

4th edition, page 40
--
73, Cecil http://www.qsl.net/w5dxp

# 2957. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 14:32:27 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41af2579$1_4@127.0.0.1>
Source record: 85959

Roy Lewallen wrote:
> From my previous posting, the power into the line is 50 watts and the
> power out is 25 watts.
>
> To find the loss in dB, take the ratio of input to output power, that
> is, 50 divided by 25, to get 2. Now take the base ten logarithm of that.
> (The Log key on a calculator is what I use for this complex operation. I
> get about 0.301. Finally, multiply that by 10, to get 3.01 dB. 3 is
> close enough for most of us.

The RF technician I worked with at Intel was directed by his manager to
report all powers in dB referenced to the signal generator output which,
in the above example, was 100 watts. His figure for dB loss in the transmission
line would be different from yours and you would be the one getting a bad
review for not following directions.

Like I said earlier, your refusal to define the powers being ratio'ed
may spread confusion instead of information.
--
73, Cecil http://www.qsl.net/w5dxp

# 2958. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 14:45:15 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41af2877$1_2@127.0.0.1>
Source record: 85894

Jim Kelley wrote:
> I think the source of part of the confusion here is that some people
> apparently interpret the 'forward power' reading on their meter to mean
> the power into their transmission line.

The confusion comes about when the signal generator output power
is used as the reference, as is customary in a number of companies,
including the Intel cable group when I was there. Forward power is
*NOT* measured. Signal Generator Output Power is measured and all
dB measurements are referenced to that power.

> The confusion I think stems from the contention that any 'reflected
> power' (unfortunate nomenclature IMO) is first sourced and then after
> reflection returned back into the source, or to a circulator load as the
> case may be. The latter case is certainly correct. The former is
> phenomenologically problematic.

Another example of a physicist rejecting engineering principles.
I suggest you review HP's Ap Note 95-1 on S-Paramater analysis to
refresh your knowledge of the engineering definition of power.

|a1|^2 is forward power on the source side.
|b1|^2 is reflected power on the source side.
|a2|^2 is reflected power on the load side.
|b2|^2 is forward power on the load side.
--
73, Cecil http://www.qsl.net/w5dxp

# 2959. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 14:47:23 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41af28f6$1_2@127.0.0.1>
Source record: 85971

Richard Clark wrote:
> By that same logic it follows that the power "into" the transmission
> line was in fact never "into" the line at all but into the circulator
> input, ...

Very flawed logic as can be proven by observing the modulation
associated with the circulator. That modulation has obviously
made a round trip to the load and back. Sorry about that.
--
73, Cecil http://www.qsl.net/w5dxp

## 2960. Re: What causes this?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 15:31:59 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <conchf$sjq$2@titan.btinternet.com>
Source record: 85874

> I'm just curious why the formula for length
> and the bandwidth changed as the antenna got
> shorter.
>
> Ken KG0WX
>
==========

The resonant length of an antenna depends on -

Length of wire.

But also to a far smaller extent on -

Increasing conductor diameter.
Increasing conductor insulation thickness.
Reducing height above ground.
Close proximity to antenna supports, buildings, trees and indoors.

All of which can reduce the resonant length to very slightly less than the theoretical maximum value of 150/MHz metres for a halfwave dipole.

Or 492/MHz feet, pruned by a very few percent.

Behaviour versus the included angle of an inverted-V is slightly peculiar. As the included angle approaches zero (which nobody ever uses) the resonant length approaches that of an ordinary open-wire transmission line, 150/MHz again.

"Very slightly less" is of the order of 1 or 2 or 3 percent unless you have a VERY low antenna. Everybody's antenna is slightly different. Just keep a pair of pruning shears handy. Or bend the wire back on itself.
----
Reg, G4FGQ

# 2961. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 15:31:59 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <conchf$sjq$1@titan.btinternet.com>
Source record: 85954

"Cecil Moore" wrote
> Reg Edwards wrote:

> > Cecil, when there are several different power levels at different places
in
> > a circuit, it is entirely up to you how you reference one to another in
dB.

>
> Now Reg, that just cannot be true.

==========

That's funny - _I_ don't have any difficulty in believing it! ;o)
---
Reg

# 2962. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 15:47:54 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41af3407$1_3@127.0.0.1>
Source record: 85881

Roy Lewallen wrote:
> The concepts of "forward" and "reflected" power are sometimes (but not
> often) useful, but have to be carefully confined to a very specific set
> of conditions and applications. When you start thinking of them as real
> packets of power bouncing around inside and outside a cable, you can
> easily be led into a number of traps which you can get out of only by
> distorting reality and ultimately reaching conclusions which are more
> and more wrong.

Consider an earlier example made up of lossless lines:

100W XMTR---50 ohm---+---one second long 291.5 ohm---50 ohm load

The voltage reflection coefficient at the load is 0.707. The power
reflection at the load is 0.5, i.e. half the power is reflected.

After steady-state has been reached, the XMTR has output 300 more
joules than the load has accepted. A smaller real-world experiment
will easily verify that it is a fact that all energy sourced that
has not reached the load must necessarily be confined to circulating
energy or losses in the transmission line.

Question: In the above example, where are those 300 joules of energy
located and what is happening to them?

We know that 300 joules is wave energy and RF waves always move
at the speed of light, i.e. they cannot stand still. So please
determine how much energy is moving and in which of only two
possible directions.

The knife cuts both ways. Ignoring the energy gives one a very
warped view of reality where TV ghosting cannot exist, RADAR
can't possibly work, there's no such thing as non-glare glass,
and RF energy just sorta slowly mushes side-to-side inside a
transmission line. Can you spell M-A-G-I-C?

> I strongly suggest forgetting completely about "forward" and "reverse"
> power.

Good way to condemn yourself forever to a non-understanding of
energy movement in a transmission line. If that's your choice,
be my guest but please don't try to pass yourself off as an
energy expert by ignoring energy movement.

Many authors of transmission line textbooks disagree with your
stance.
--

73, Cecil http://www.qsl.net/w5dxp

# 2963. Re: Indoor AM Ant

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 15:52:44 UTC
From: John Smith <kd5yikes@mindspring.com>
Message-ID: <gTGrd.6090$u81.4107@newsread3.news.pas.earthlink.net>
Source record: 85964

"Diane" <dke@mn.rr.com> wrote in message
news:rXurd.77710$ye4.67402@twister.rdc-kc.rr.com...
> Is there any half-way decent indoor ant I can use on an old Hallicrafters
> S-40B? I mainly want to extend reception for nightime MW. Thanks.
> -Phil

Hi, Phil -

Why not just try the wire first before buying a tuner and see if you're
happy with the results? Can't hurt anything.

John

# 2964. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 15:54:56 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <vtduq0998didhnlgji6ubmlnme21n8v6ae@4ax.com>
Source record: 85878

On Thu, 02 Dec 2004 08:20:03 -0600, Cecil Moore <w5dxp@hotmail.com>
wrote:
>My technician at Intel would have reported
>the 11001 watts of feedline loss above referenced to the signal
>generator output power of 1100100 watts as was customary.
Sure he would and this would have rendered 110dB
Common stuff that :-)

# 2965. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 15:57:13 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <qheuq09kgr92feirbi96j0q5r0snbm3r4a@4ax.com>
Source record: 85889

On Thu, 02 Dec 2004 08:47:23 -0600, Cecil Moore <w5dxp@hotmail.com>
wrote:
>Very flawed logic as can be proven by observing the modulation
>associated with the circulator.
And the initial condition violations just keep stacking up
When do we get to the unstated EMP analysis?

# 2966. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 16:00:34 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <jleuq0tfkfq16jg1kve1upfpb12mhosh4t@4ax.com>
Source record: 85880

On Thu, 02 Dec 2004 09:47:54 -0600, Cecil Moore <w5dxp@hotmail.com>
wrote:
>100W XMTR---50 ohm---+---one second long 291.5 ohm---50 ohm load
And yet more violations of Initial Condition. What was wrong with the
original stub, didn't reach into a hyper dimension of virtual reality?
Do you suppose that the ARRL used such a long line for their table?
But if you are trying to prove they were in another dimension - it
follows. ;-)

# 2967. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 16:07:28 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <uqIQoBeA3zrBFABq@ifwtech.co.uk>
Source record: 85953

Cecil Moore wrote:
>
>The RF technician I worked with at Intel was directed by his manager to
>report all powers in dB referenced to the signal generator output
>which,
>in the above example, was 100 watts. His figure for dB loss in the transmission
>line would be different from yours and you would be the one getting a bad
>review for not following directions.
>

Since his manager was Cecil, there may be a good case for worker's comp.
;-)

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

# 2968. Re: Is this jack wired correctly?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 16:22:01 UTC
From: drwxr-xr-x <bit-bucket@config.com>
Message-ID: <slrncqug99.ts3.bit-bucket@shell.config.com>
Source record: 85876

On Wed, 01 Dec 2004 21:15:51 -0500, Ken hath writ:
> Please see J4 for a TenTec RX-320 -- copied from the TenTec web site:
> http://home.att.net/~cprstn54/J4.JPG
> Am I right that this a a stereo jack with the mono signal on ring?
> If so, why would anyone wire up a jack this way? A mono plug would
> short the signal to ground.

Nice antenna topic!

# 2969. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 16:23:14 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41af3c4e$1_2@127.0.0.1>
Source record: 85882

Richard Clark wrote:

> Cecil Moore <w5dxp@hotmail.com> wrote:
>>Very flawed logic as can be proven by observing the modulation
>>associated with the circulator.
>
> And the initial condition violations just keep stacking up

I know you consider it unfair to your position to bring up
the subject of TV ghosting but perhaps considering such would
enlighten you about EM RF wave reflection energy.

Or maybe you can just explain where the modulation energy was
hiding while it only apparently made a round trip to the load?
--
73, Cecil http://www.qsl.net/w5dxp

## 2970. how about a maritime mobile station?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 16:25:06 UTC
From: DB Rea <danielb@trib.com>
Message-ID: <1ea5j3t8b5334$.1645ehj6y4lmx.dlg@40tude.net>
Source record: 85957

I found a reference to this in rec.radio.broadcasting. Anyone interested
in 160-meter maritime mobile?

http://www.thesuperstation.co.uk/sale.htm

cheers from way too far inland-

Dan NK7H

# 2971. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 16:32:29 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41af3e7a$1_5@127.0.0.1>
Source record: 85951

Richard Clark wrote:

> Cecil Moore <w5dxp@hotmail.com> wrote:
>>100W XMTR---50 ohm---+---one second long 291.5 ohm---50 ohm load
>
> And yet more violations of Initial Condition.

The question was: Where are those 300 joules of EM RF energy
that have been previously sourced by the XMTR but not yet dissipated
in the load?

What are you afraid of that would be contained in your straight
answer to that simple question? Doesn't it embarrass you to
present all sorts of logical diversions instead of answering?
--
73, Cecil http://www.qsl.net/w5dxp

# 2972. Re: Indoor AM Ant

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 16:34:39 UTC
From: Bob Miller <rmiller47@satx.rr.com>
Message-ID: <atguq05qp8pbhlnkvqvrgjp23b4nisohph@4ax.com>
Source record: 85965

On Thu, 02 Dec 2004 15:52:44 GMT, "John Smith"
<kd5yikes@mindspring.com> wrote:

>
>"Diane" <dke@mn.rr.com> wrote in message
>news:rXurd.77710$ye4.67402@twister.rdc-kc.rr.com...
>> Is there any half-way decent indoor ant I can use on an old Hallicrafters
>> S-40B? I mainly want to extend reception for nightime MW. Thanks.
>> -Phil
>
>
>Hi, Phil -
>
>Why not just try the wire first before buying a tuner and see if you're
>happy with the results? Can't hurt anything.
>
>John
>

the s40b has no internal antenna -- I'm guessing she has some kind of
wire hanging off the antenna terminal now

bob
k5qwg

# 2973. Re: Indoor AM Ant

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 16:46:43 UTC
From: richardharrison@webtv.net
Message-ID: <11416-41AF46F3-246@storefull-3252.bay.webtv.net>
Source record: 85969

Rhil wrote:
"Is there any half-way decent indoor ant I can use on an old Hallicrafter S-40 B? I mainly want to extend peception for nighttime MW."

Satisfactory reception depends on signal to noise (and interference) ratio.

At night, diatant BCB reception is via the skywave which is reflected from the ionosphere. On reflection, both polarizations, horizontal and vertical are produced by the ionosphere. Only vertical polarization is sent by transmitters as the local audience is the only one that can be sold to advertisers. Vertical polarization propagates very well by groundwave beyond the line of sight, day and night. Horizontally polarized waves are not propagated by the groundwave at all. The earth short-circuits horizontal polarization.

Thus, a balanced horizontal doublet antenna will pickup the DX while rejecting local noise and interference which is overwhelmingly vertically polarized. Never mind that the antenna is much shorter than 1/2-wave. The S-40 has s lot of gain and can overcome low signal levels. Its big problem will be interference from undesired noise and interfering signals, much of which the doublet will reject.

Another antenna will produce the same benefits. It is the resonant loop antenna or loopsrick. It can be oriented to reject vertically polarized reception. It is also small and can be easily aimed to reject some horizontally polartized signals as well. I don`t see anyone rotating a BCB doublet to do thia, but it`s possible.

Loops and loopsticks are offered ready-made. I have no recommendations. In 1938 I had a new GE super console which came with a "Vee Doublet Antenna". It worked as advertised for mediumwave and shortwave.

Reg Edwards, G4FGQ has some free programs for those who would built their own loop antennas. He frequently posts messegages in this newsgroiup. Search for the URL`s you want. I hope I got Reg`s callsign right.

Best regards, Richard Harrison, KB5WZI

# 2974. Re: Is this jack wired correctly?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 16:49:26 UTC
From: Ken <cprstn54zz@att.net>
Message-ID: <gmhuq05dh4rk2eel9a3vkoevn2d4ujae4c@4ax.com>
Source record: 85892

On 2 Dec 2004 16:22:01 GMT, drwxr-xr-x <bit-bucket@config.com> wrote:
>Nice antenna topic!

You do have a point, but why waste the bandwith to respond -- if you
don't have a helpful suggestion. It is at least a radio question.

Your comment and the general lack of response did make me think to
post it to sci.electronics.basics.

Ken KC2JDY

Ken
(to reply via email
remove "zz" from address)

# 2975. Oddity of ground mounted antenna's.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 16:51:12 UTC
From: raiar@bbs.galilei.com.nospam
Message-ID: <41af4225.414130093@news.galilei.com>
Source record: 85887

Hi Gang

I recently moved from a fairly flat state to one that is mountainous.

In getting to know the local area hams I have visited quite a few this past year.

Several of them have their ground mounted HF antenna's perpendicular to the grade of the land rather than vertical. In other words, the top of the antenna is roughly 90 inches off center toward the downhill side.

The only reasoning I have received thus far is it works better that way here. But not everyone adheres to doing it that way, all commercial antenna's are vertical.

What Gives?

TTUL
Gary

# 2976. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 16:51:48 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41af4302_5@127.0.0.1>
Source record: 85962

Ian White, G3SEK wrote:

> Cecil Moore wrote:
>> The RF technician I worked with at Intel was directed by his manager to
>> report all powers in dB referenced to the signal generator output ...
>
> Since his manager was Cecil, there may be a good case for worker's comp.

Actually, his manager was one Mr. Smith, a ham with a Canadian call.
Is it unusual for dB figures to be referenced to the signal generator
output?
--
73, Cecil http://www.qsl.net/w5dxp

# 2977. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 17:07:52 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <gliuq0hb9mebtmf82hjsma5u29mppc1c26@4ax.com>
Source record: 85895

On Thu, 02 Dec 2004 08:45:15 -0600, Cecil Moore <w5dxp@hotmail.com>
wrote:
>Signal Generator Output Power is measured and all
>dB measurements are referenced to that power.
Yet another violation of Initial Conditions. Signal Generator outputs
are calibrated into a 50 Ohm Load. Another violation of Initial
Conditions is that Signal Generators do not source 100W.

# 2978. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 17:09:43 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41af4734$1_5@127.0.0.1>
Source record: 85960

Roy Lewallen wrote:
> I strongly suggest forgetting completely about "forward" and "reverse"
> power. If you must deal with directional waves, look at forward and
> reverse voltage and current waves.

Say Roy, exactly how many of those EM voltage and current waves
have you encountered that didn't possess any energy? I always
thought the power in an EM wave was defined as ExH. :-)
--
73, Cecil http://www.qsl.net/w5dxp

# 2979. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 17:11:09 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <3siuq0h2gmqkrm9gp9btems09mjftuea3j@4ax.com>
Source record: 85872

On Thu, 02 Dec 2004 08:32:27 -0600, Cecil Moore <w5dxp@hotmail.com>
wrote:
>directed by his manager to report all powers in dB referenced to the
>signal generator output which, in the above example, was 100 watts
Betcha can't name the model number or maker.

# 2980. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 17:18:55 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <dcjuq05v2r2ddfmua8ase5i4230lf68m1h@4ax.com>
Source record: 85956

On Thu, 02 Dec 2004 10:32:29 -0600, Cecil Moore <w5dxp@hotmail.com>
wrote:
definition of an Initial Condition violation:
>The question was
Different this time than last (recurse here)

# 2981. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 17:21:29 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <2gjuq0lv9lomhnc8fpgclobs8l0gtcnsn3@4ax.com>
Source record: 85875

On Thu, 02 Dec 2004 10:23:14 -0600, Cecil Moore <w5dxp@hotmail.com>
wrote:
>I know you consider it unfair to your position
Sitting down? Or are you talking about chiropodistry?

# 2982. Re: Oddity of ground mounted antenna's.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 17:28:45 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <9mjuq0lp565jds1rf1jvmmn781el6q3upl@4ax.com>
Source record: 85884

On 02 Dec 2004 11:51:12 EST, raiar@bbs.galilei.com.nospam (Gary V. Deutschmann, Sr.) wrote:
>What Gives?

Hi Gary,

Do they have the faith to build their walls that way too? Look at the horizontals. Do they ridge run, or do they follow the down hill slope too?

The better question is: How much better is theirs than their neighbor's vertical (as opposed to their perpendicular)?

The best question is: How do they know?

Kinda reminds me of the Katherine Hepburn movie "Bringing Up Baby" where she breaks one heel of her high heels and starts loping along: "I feel like I was born on the side of a hill."

73's
Richard Clark, KB7QHC

# 2983. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 17:47:36 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41af5015$1_3@127.0.0.1>
Source record: 85968

Richard Clark wrote:

> On Thu, 02 Dec 2004 08:45:15 -0600, Cecil Moore <w5dxp@hotmail.com>
> wrote:
>
>>Signal Generator Output Power is measured and all
>>dB measurements are referenced to that power.
>
> Yet another violation of Initial Conditions. Signal Generator outputs
> are calibrated into a 50 Ohm Load.

In a signal generator equipped with a circulator/load, the signal
generator indeed does always see close to a 50 ohm load so, no
problem.

> Another violation of Initial
> Conditions is that Signal Generators do not source 100W.

Hams understand 100W and since this was a mental exercise,
I used 100W. If I had used 10 dBm, I would have lost most
of the readers.

Richard, I don't recall an "Initial Conditions List". Perhaps
you could point me to the posting that listed them. Who is the
"Initial Conditions" God, anyway?
--
73, Cecil http://www.qsl.net/w5dxp

# 2984. Re: Oddity of ground mounted antenna's.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 17:57:33 UTC
From: chuck <chuck@nospam.net>
Message-ID: <hIIrd.1531$Va5.505@newsread3.news.atl.earthlink.net>
Source record: 85879

Hello Gary,

Don't know from personal experience, but Les Moxon, author of HF
Antennas for all Locations, seems to believe it creates an advantage.
You might want to read his thoughts on that.

Good luck.

Chuck

# 2985. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 18:14:58 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41af5681_5@127.0.0.1>
Source record: 85890

Richard Clark wrote:

> Cecil Moore <w5dxp@hotmail.com> wrote:
>>directed by his manager to report all powers in dB referenced to the
>>signal generator output which, in the above example, was 100 watts
>
> Betcha can't name the model number or maker.

Hint: If it's not obvious, the signal generator used at Intel
in Chandler, AZ during the 1990's and the signal generator used
in my purely mental exercise posted to r.r.a.a in 2004 are NOT
the same device. Sheeeezzzzzz ...
--
73, Cecil http://www.qsl.net/w5dxp

# 2986. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 18:20:30 UTC
From: Wes Stewart <*n7ws*@arrl.net>
Message-ID: <npmuq09n7mbpduv416rfi2l53nkf04l3vq@4ax.com>
Source record: 85883

On Thu, 02 Dec 2004 10:51:48 -0600, Cecil Moore <w5dxp@hotmail.com>
wrote:

|Ian White, G3SEK wrote:
|
|> Cecil Moore wrote:
|>> The RF technician I worked with at Intel was directed by his manager to
|>> report all powers in dB referenced to the signal generator output ...
|>
|> Since his manager was Cecil, there may be a good case for worker's comp.
|
|Actually, his manager was one Mr. Smith, a ham with a Canadian call.
|Is it unusual for dB figures to be referenced to the signal generator
|output?

Highly.

All of the S-parameters I've ever measured were referenced to the ends
of the cables used to connect the DUT to the test equipment.

Absent concerns about SNR, I didn't give a rat's behind about what the
signal generator power was.

# 2987. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 18:25:04 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <o8nuq09q08b1id0mvt8nnefir1flla8lh1@4ax.com>
Source record: 85955

On Thu, 02 Dec 2004 11:47:36 -0600, Cecil Moore <w5dxp@hotmail.com>
wrote:
>If I had used 10 dBm, I would have lost most of the readers.
You lost them at 100W

# 2988. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 18:27:19 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <bcnuq09v9lfb8j4i0mj722g43k1eoi6fa0@4ax.com>
Source record: 85885

On Thu, 02 Dec 2004 12:14:58 -0600, Cecil Moore <w5dxp@hotmail.com>
wrote:
>> Betcha can't name the model number or maker.
>Hint: If it's not obvious
I Win! You can't name them at Intel OR ARRL! :-)
Another violation of Initial Conditions

# 2989. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 18:49:36 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41af5ea6_2@127.0.0.1>
Source record: 85952

Wes Stewart wrote:
> All of the S-parameters I've ever measured were referenced to the ends
> of the cables used to connect the DUT to the test equipment.

Where the signal generator was connected?

b1 = s11*a1 + s12*a2

The HP S-parameter Ap Note 95-1 sez:

|a1|^2 = Power incident on the input of the network
= Power available from a source impedance Z0

What was |a1|^2 referenced to?
--
73, Cecil http://www.qsl.net/w5dxp

# 2990. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 18:54:17 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <lrouq0h8h1c4b1hdqqjjrsftdfrvfom2no@4ax.com>
Source record: 85958

On Thu, 02 Dec 2004 12:55:58 -0600, Cecil Moore <w5dxp@hotmail.com>
wrote:
>Apparently two separate concepts in the same sentence
>are just too much for you to comprehend.
Which:
1. You can't name the model/maker of this supposed Intel source
or
2. You can't name the model/maker of this supposed ARRL source
?

Suppositions and guessing are hallmarks of Initial Conditions
violation.

# 2991. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 18:55:58 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41af6025_2@127.0.0.1>
Source record: 85877

Richard Clark wrote:
> I Win! You can't name them at Intel OR ARRL! :-)
> Another violation of Initial Conditions

Apparently two separate concepts in the same sentence
are just too much for you to comprehend.
--
73, Cecil http://www.qsl.net/w5dxp

## 2992. Re: What causes this?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 19:12:15 UTC
From: richardharrison@webtv.net
Message-ID: <3009-41AF690F-221@storefull-3258.bay.webtv.net>
Source record: 85893

Ken, KG0WX wrote:
"I`m just curious why the formula for length and the bandwidth changed as the antenna got shorter."

In an inverted V, the capacitance effect at its high-voltage ends is enhanced by their nearness to earth.

Best regards, Richard Harrison, KB5WZI

# 2993. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 19:21:18 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <OWJrd.82791$7i4.52380@bgtnsc05-news.ops.worldnet.att.net>
Source record: 85966

Cecil,

It's a slow day, so I thought I might take some time to help you out of your dilemma.

Q: Where are the missing joules?

A: They are associated with the large standing wave supported by the mismatched terminations of your transmission line.

As I have pointed out previously, standing waves are not inert. The shape of the wave does not travel down the line, but the fields are changing, and the charges are moving. Within each loop of the standing wave the stored energy simply oscillates between magnetic energy when the current is high and electrostatic energy when the voltage is high. Very basic stuff.

The problem in your analysis is the initial axiom that RF waves always move. This is simply incorrect, and it leads to the dilemma you face. Traveling waves are fine if you do the math correctly, but the physical situation is in the form of a standing wave. The model results need to agree or there is a math error.

And as many people have pointed out, always add the voltages and currents first and only consider power at the very end of the analysis.

Since you are also an optics guru you might want to check into the details of laser cavity operation or Fabry-Perot etalon operation. These are highly mismatched systems with very strong standing wave components along with a little bit of net traveling wave. Definitely related to the problem you posed.

73,
Gene
W4SZ

Cecil Moore wrote:

[snip]
>
> After steady-state has been reached, the XMTR has output 300 more
> joules than the load has accepted. A smaller real-world experiment
> will easily verify that it is a fact that all energy sourced that
> has not reached the load must necessarily be confined to circulating
> energy or losses in the transmission line.
>
> Question: In the above example, where are those 300 joules of energy

> located and what is happening to them?
>
> We know that 300 joules is wave energy and RF waves always move
> at the speed of light, i.e. they cannot stand still. So please
> determine how much energy is moving and in which of only two
> possible directions.

# 2994. Happy Holidays and thanks to the group

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 19:24:20 UTC
From: Noise From Afar <NFA@wayoutdare.net>
Message-ID: <EZJrd.191906$hj.82038@fed1read07>
Source record: 85963

Happy Holdays Antenna gurus and many thanks for making this one of the best
and on topic newsgroups on ham/SWL radio.
Many experts here and very helpful group.

I have a megasite and check here regularly for good sites and links.

Thanks again

--
ruido de ic&#65533;gnito

# 2995. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 19:25:32 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <conrfe$lmk$1@news.service.uci.edu>
Source record: 85827

Richard Clark wrote:

> On Wed, 01 Dec 2004 21:27:25 -0800, Jim Kelley <jwkelley@nospam.edu>
> wrote:
>
>
>>The confusion I think stems from the contention that any 'reflected
>>power' (unfortunate nomenclature IMO) is first sourced and then after
>>reflection returned back into the source, or to a circulator load as the
>>case may be. The latter case is certainly correct. The former is
>>phenomenologically problematic.
>
>
> Hi Jim,
>
> By that same logic it follows that the power "into" the transmission
> line was in fact never "into" the line at all but into the circulator
> input, and any power finding its way into the circulator load also
> never found its way into the line, but was merely reflected at the
> circulator/line interface.

A circulator, being in general a three (or four) port directional device, might have some trouble buying into that logic. ;-) The crux of the phenomenological problem is that power does not flow or move, nor is it something that is reflected. Hence Roy's (and Reg's) suggestion that the voltages and currents resulting from the fields which propagate must be analyzed. From that analysis (which involves the fields, or V and I, propagating, reflecting, and interfering in both directions) one can determine the quantities of energy being absorbed by the effected dissipative loads in the circuit.

A transmission line circuit which includes a circulator w/load does indeed provide a mechanism by which a portion of the energy produced by a source can effectively be reflected from a mismatched load back toward the generator. On encountering the circulator in the reverse direction, it is then directed to the circulator load where it can be dissipated. In a lossey transmission line, that reflected signal will be attenuated and would in fact increase the total amount of energy the transmission line dissipates. The amount of energy produced by the generator increases by the amount lost to the circulator load and the transmission line. **Absent the circulator, those energy losses would not be realized - nor sourced.**

The argument that fields "have" or "contain" energy is misdirected and misapplied. Obviously one can measure a field at each of the electrical

outlets in his house even when nothing is drawing energy from those outlets. The potential to create a transfer of energy does not necessarily equate with a transfer of energy. A mechanism must exist which provides the conduit for a transfer of energy. It is that mechanism, and the nature of the source and the load which determine the amount of power being generated and transferred to the dissipating load.

73, Jim AC6XG

# 2996. Re: Indoor AM Ant

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 19:27:49 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0412021127.717caa24@posting.google.com>
Source record: 85970

"Diane" <dke@mn.rr.com> wrote in message
news:<Ssxrd.106867$T02.30602@twister.rdc-kc.rr.com>...
> So would a random wire HF tuner like the MFJ-16010 be what I need or do
> antiques require something specific?
> Thanks, Phil

You shouldn't need a tuner for a simple wire. For MW, I think the best
indoor antenna is a loop. One homebrew example is here...
http://web.wt.net/~nm5k/loop5.jpg MK

# 2997. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 19:38:05 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41af69f9$1_3@127.0.0.1>
Source record: 85888

Richard Clark wrote:
> Which:

One last time:
The 100 watts came from a MENTAL signal generator existing ONLY in
my IMAGINATION for the propose of discussing a HYPOTHETICAL example
on r.r.a.a. I'm sorry you are having difficulty understanding that
concept. Perhaps English lessons would help?
--
73, Cecil http://www.qsl.net/w5dxp

# 2998. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 19:39:45 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <geruq0l53p3j6nlrjf2nqjvn2ifr9cgkkq@4ax.com>
Source record: 85961

On Thu, 02 Dec 2004 13:38:05 -0600, Cecil Moore <w5dxp@hotmail.com>
wrote:
>One last time:
Actually there is no last time unless:
1. You can't name the model/maker of this supposed Intel source
or
2. You can't name the model/maker of this supposed ARRL source
?
Choose one or both.
Suppositions and guessing are hallmarks of Initial Conditions
violation.

## 2999. Re: What causes this?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 19:43:10 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <0nruq0phmbilu55u565d06d9159fur755c@4ax.com>
Source record: 85896

On Thu, 2 Dec 2004 13:12:15 -0600, richardharrison@webtv.net (Richard Harrison) wrote:
>In an inverted V, the capacitance effect at its high-voltage ends is >enhanced by their nearness to earth.

Hi Richard,

Then that is dashed by his having trimmed the ends (presumably everything at the same height, and as such in a direction away from earth) and the multiplier shrank more. More likely the capacitance between the ends grew instead (corresponds to all factors observed).

73's
Richard Clark, KB7QHC

# 3000. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 19:43:34 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <GfKrd.82848$7i4.26980@bgtnsc05-news.ops.worldnet.att.net>
Source record: 85873

Cecil,

Radio amateurs and "magic antenna" charlatans love to abuse Poynting vectors and the Poynting theorem.

The basic answer is no, it is not correct to say, "the power in an EM wave was [is] defined as ExH."

The Poynting vector, generally described as ExH, is the energy flow density. It has units of energy/area/time. While this may seem to be nitpicking it is essential to note that this vector is defined at a point, not for a "wave", and an integration (or summation) over the surface of a closed volume must be performed before one can say anything about power or conservation of energy.

In practical terms the Poynting vector ExH and the Poynting theorem have little utility for radio amateurs.

73,
Gene
W4SZ

Cecil Moore wrote:

> Roy Lewallen wrote:
>
>> I strongly suggest forgetting completely about "forward" and "reverse"
>> power. If you must deal with directional waves, look at forward and
>> reverse voltage and current waves.
>
>
> Say Roy, exactly how many of those EM voltage and current waves
> have you encountered that didn't possess any energy? I always
> thought the power in an EM wave was defined as ExH. :-)
> --
> 73, Cecil http://www.qsl.net/w5dxp

# 3001. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 20:09:14 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41af7148_5@127.0.0.1>
Source record: 85832

Gene Fuller wrote:
> Q: Where are the missing joules?
>
> A: They are associated with the large standing wave supported by the
> mismatched terminations of your transmission line.

The "large standing wave" is associated with a an EM forward wave
traveling at the speed of light superposed with an EM reflected
wave traveling at the speed of light. Please give us an example
of an EM standing wave that is not composed of superposed EM waves
traveling in opposite directions at the speed of light.

What you seem to be saying is that two similar vehicles traveling
in opposite directions at the same speed don't possess any net
energy. Try standing between them when they crash and get back
to us.

> As I have pointed out previously, standing waves are not inert. The
> shape of the wave does not travel down the line, but the fields are
> changing, and the charges are moving. Within each loop of the standing
> wave the stored energy simply oscillates between magnetic energy when
> the current is high and electrostatic energy when the voltage is high.
> Very basic stuff.

Very magic stuff. EM waves simply cannot slosh around side-to-side
in a transmission line. EM waves must move at the speed of light or
else the theory of relativity is wrong. You are mentally lumping
things together in your mind when they are not lumpable together in
reality, i.e. your thoughts don't match reality.

The only time two EM waves traveling in opposite directions interact
is at an impedance discontinuity. All other interaction exists only
in your mind, not in reality. In a constant Z0 environment, EM waves
traveling in different directions pass like ships in the night.

> The problem in your analysis is the initial axiom that RF waves always
> move. This is simply incorrect, and it leads to the dilemma you face.

Please give me an example of just one photon that doesn't move at
the speed of light. You will have proven the theory of relativity to
be incorrect.

> And as many people have pointed out, always add the voltages and
> currents first and only consider power at the very end of the analysis.

Please don't pass yourself off as an expert on a subject where your
only recommendation is not to think about the subject. It reminds me

of the priests who put Galileo under house arrest.
--
73, Cecil http://www.qsl.net/w5dxp

# 3002. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 20:11:40 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <0GKrd.1018216$Gx4.271948@bgtnsc04-news.ops.worldnet.att.net>
Source record: 85839

Cecil,

Fine.

My method solves the problem. Your method leads to endless threads on RRAA.

Have it your way.

73,
Gene
W4SZ

Cecil Moore wrote:

> Gene Fuller wrote:
>
>> Q: Where are the missing joules?
>>
>> A: They are associated with the large standing wave supported by the
>> mismatched terminations of your transmission line.
>
>
> The "large standing wave" is associated with a an EM forward wave
> traveling at the speed of light superposed with an EM reflected
> wave traveling at the speed of light. Please give us an example
> of an EM standing wave that is not composed of superposed EM waves
> traveling in opposite directions at the speed of light.
>
> What you seem to be saying is that two similar vehicles traveling
> in opposite directions at the same speed don't possess any net
> energy. Try standing between them when they crash and get back
> to us.
>
>> As I have pointed out previously, standing waves are not inert. The
>> shape of the wave does not travel down the line, but the fields are
>> changing, and the charges are moving. Within each loop of the standing
>> wave the stored energy simply oscillates between magnetic energy when
>> the current is high and electrostatic energy when the voltage is high.
>> Very basic stuff.
>
>
> Very magic stuff. EM waves simply cannot slosh around side-to-side
> in a transmission line. EM waves must move at the speed of light or
> else the theory of relativity is wrong. You are mentally lumping
> things together in your mind when they are not lumpable together in
> reality, i.e. your thoughts don't match reality.

>
> The only time two EM waves traveling in opposite directions interact
> is at an impedance discontinuity. All other interaction exists only
> in your mind, not in reality. In a constant Z0 environment, EM waves
> traveling in different directions pass like ships in the night.
>
>> The problem in your analysis is the initial axiom that RF waves always
>> move. This is simply incorrect, and it leads to the dilemma you face.
>
>
> Please give me an example of just one photon that doesn't move at
> the speed of light. You will have proven the theory of relativity to
> be incorrect.
>
>> And as many people have pointed out, always add the voltages and
>> currents first and only consider power at the very end of the analysis.
>
>
> Please don't pass yourself off as an expert on a subject where your
> only recommendation is not to think about the subject. It reminds me
> of the priests who put Galileo under house arrest.
> --
> 73, Cecil http://www.qsl.net/w5dxp

# 3003. Re: Oddity of ground mounted antenna's.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 20:11:54 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <consua$ouo$1@hercules.btinternet.com>
Source record: 85909

There's a breed of Algerian goats with legs on one side longer than the other.

They live on the sides of steep mountains.

# 3004. Re: What causes this?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 20:15:11 UTC
From: Ken Bessler <kg0wx@NOSPAMyahoo.com>
Message-ID: <lJKrd.10425$3l.10205@okepread01>
Source record: 85897

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:0nruq0phmbilu55u565d06d9159fur755c@4ax.com...
> On Thu, 2 Dec 2004 13:12:15 -0600, richardharrison@webtv.net (Richard
> Harrison) wrote:
>>In an inverted V, the capacitance effect at its high-voltage ends is
>>enhanced by their nearness to earth.
>
> Hi Richard,
>
> Then that is dashed by his having trimmed the ends (presumably
> everything at the same height, and as such in a direction away from
> earth) and the multiplier shrank more. More likely the capacitance
> between the ends grew instead (corresponds to all factors observed).
>
> 73's
> Richard Clark, KB7QHC

Now THAT makes sense! I was worried that at the rate
I observed the nnn/f formula decline, your average 10m
dipole would be stupidly short!

And, for the record, I never touched the height of the feedpoint
or the angle of the legs. Instead of tying to the tips of the legs,
I attached the guy lines (heavy duty natural twine) about 8" up
from the ends. That way, I could trim the ends without having
to redo the supports. I wrapped the twine around the ends to
keep everything straight.

So, only 2 things changed - the height of the ends (10') and the
length of the legs.

Thanks everyone for the ideas.....

Ken KG0WX

# 3005. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 20:28:20 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41af75c0$1_4@127.0.0.1>
Source record: 85837

Jim Kelley wrote:
> The crux of
> the phenomenological problem is that power does not flow or move, nor is
> it something that is reflected.

But energy does flow and move and is something that can be reflected.
You can easily see the energy packets using a TDR. Without energy,
those pulses wouldn't exist. The energy is obviously in the pulse,
where the voltage and current are.

And joules of energy flowing past a point is joules/sec, i.e. power,
by IEEE definition.

Incidentally, how do you explain the Poynting Vector and the Power
Flow Vector?

> The argument that fields "have" or "contain" energy is misdirected and
> misapplied.

A lot of people will be surprised to discover that their electromagnetic
ExH and ExB values are "misdirected and misapplied".
--
73, Cecil http://www.qsl.net/w5dxp

# 3006. Re: Oddity of ground mounted antenna's.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 20:33:02 UTC
From: Frank <ve6cb@NOSPAM.telus.net>
Message-ID: <2_Krd.21382$cE3.6987@clgrps12>
Source record: 85846

Since NEC cannot model a sloping ground, just try modeling a leaning vertical, and see how it effects the pattern. I seriously doubt there would be much difference. Certainly nothing you would notice.

Frank

"Richard Clark" <kb7qhc@comcast.net> wrote in message news:9mjuq0lp565jds1rf1jvmmn781el6q3upl@4ax.com...
> On 02 Dec 2004 11:51:12 EST, raiar@bbs.galilei.com.nospam (Gary V.
> Deutschmann, Sr.) wrote:
>>What Gives?
>
> Hi Gary,
>
> Do they have the faith to build their walls that way too? Look at the
> horizontals. Do they ridge run, or do they follow the down hill slope
> too?
>
> The better question is: How much better is theirs than their
> neighbor's vertical (as opposed to their perpendicular)?
>
> The best question is: How do they know?
>
> Kinda reminds me of the Katherine Hepburn movie "Bringing Up Baby"
> where she breaks one heel of her high heels and starts loping along:
> "I feel like I was born on the side of a hill."
>
> 73's
> Richard Clark, KB7QHC

# 3007. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 20:46:34 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41af7a07$1_3@127.0.0.1>
Source record: 85843

Gene Fuller wrote:
> The Poynting vector, generally described as ExH, is the energy flow
> density. It has units of energy/area/time.

Rate of energy flow through an area? Sure sounds like joules/sec
(power) to me. The IEEE Dictionary agrees.

> In practical terms the Poynting vector ExH and the Poynting theorem have
> little utility for radio amateurs.

I particularly like Johnson's treatment where the forward power
and reflected power have separate Poynting Vectors. :-)

A quote from Ramo & Whinnery's, _Fields_and_Waves_:

"... it is often convenient to think of the Poynting Vector as
the vector giving direction and magnitude of energy flow at any
point in space."
--
73, Cecil http://www.qsl.net/w5dxp

# 3008. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 20:49:58 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <dmuuq098q78prrfttvmr4p5fnu2527otuo@4ax.com>
Source record: 85918

On Thu, 02 Dec 2004 11:25:32 -0800, Jim Kelley <jwkelley@uci.edu>
wrote:

>A circulator, being in general a three (or four) port directional
>device, might have some trouble buying into that logic. ;-) The crux of
>the phenomenological problem is that power does not flow or move, nor is
>it something that is reflected.

Hi Jim,

I merely responded in like metaphors.

To this point, the meditation of the difference between Bob's results
and the ARRL table speculates that the ARRL used an unknown Intel 100W
circulating Signal Generator driving 1 second's worth of transmission
line where Poynters Theorem proves that the dB loss is - well, we
never get to the end, do we?

73's
Richard Clark, KB7QHC

## 3009. Re: What causes this?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 21:08:07 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10qv11p31fc4n73@corp.supernews.com>
Source record: 85901

There's good reason for confusion.

Resonance is defined as the frequency at which the reactance is zero.

Antenna resonance is the frequency at which the feedpoint reactance is zero.

At the input end of a feedline, resonance will occur at the same frequency as antenna resonance only if the antenna resistance is the same as the feedline characteristic impedance, or if the feedline is a multiple of a quarter wavelength (yes, quarter) long. So resonance at the input end of a feedline is often at a different frequency than antenna resonance. (You could call that "antenna system resonance".)

The reading on an SWR meter is a function of the both the resistance and reactance of the load presented to the meter.

As the frequency changes, both the feedpoint resistance and reactance change. So if the resistance is closer to the SWR meter's Z0 when there's a slight reactance, the SWR meter reading at the feedpoint can be better than at resonance, when the reactance is exactly zero. When measured at the feedline input, there's the additional factor of impedance transformation that can modify the reactance and therefore resonance.

In practice, though, the point of minimum SWR is nearly always very close to resonance, at the antenna feedpoint. This is because for most antennas, the reactance changes much faster with frequency than the resistance does. And, when the feedpoint resistance is roughly equal to the feedline Z0, the transformation by a mismatched feedline isn't extreme, so again the point of minimum SWR is usually close to resonance. Where you're likely to see a noticeable difference between resonance and lowest SWR is with antennas with several coupled elements (where feedpoint R can change more rapidly with frequency), or severely mismatched feedlines, like when using open wire line to feed a dipole on several bands.

In the end, it really doesn't matter. There's nothing at all magical about resonance, so there's no need to try and achieve it. What you're usually interested in doing is matching the rig to the input of the feedline, and the common measure of the quality of that match is the reading on an SWR meter. So the common, and valid, practice is to prune the antenna for lowest SWR meter reading. If you do that, there's no need to worry about where resonance might be.

Roy Lewallen, W7EL

chuck wrote:

> Ken, I guess I'm still confused.
>
> As I understand it, one cannot reliably determine the exact resonance of
> a dipole by finding the point of minimum SWR. Until this measurement
> issue is resolved, there would seem to be little benefit to seeking an
> explanation of why the formula appeared not to work.
>
> It is probably too late now, but if you had used an impedance bridge
> (MFJ or Autek, for example) you could have found resonance at the point
> of zero reactance. All within the limits of the instruments, of course.
>
> Some of the posts suggest other reasons why the formula might not work,
> but it is not yet evident to me that it didn't work.
>
> Sorry my earlier post was not more clear. (I'm even sorrier for this
> post if you actually used an impedance bridge! Hi.)
>
> 73,
>
> Chuck
> NT3G

# 3010. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 21:10:18 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <coo1n9$q9d$1@news.service.uci.edu>
Source record: 85900

Richard Clark wrote:

> On Thu, 02 Dec 2004 11:25:32 -0800, Jim Kelley <jwkelley@uci.edu>
> wrote:
>
>
>>A circulator, being in general a three (or four) port directional
>>device, might have some trouble buying into that logic. ;-) The crux of
>>the phenomenological problem is that power does not flow or move, nor is
>>it something that is reflected.
>
>
> Hi Jim,
>
> I merely responded in like metaphors.

I had a hunch about that. But I can't always parse your sentences into
the form of a concrete idea. Usually an interesting read though. ;-)

> To this point, the meditation of the difference between Bob's results
> and the ARRL table speculates that the ARRL used an unknown Intel 100W
> circulating Signal Generator driving 1 second's worth of transmission
> line where Poynters Theorem proves that the dB loss is - well, we
> never get to the end, do we?

That's absolutely right. Not all of us do. When some of us have a
question about something, we respond by flinging poison tipped daggers
at those who, in the persuit of a common interest, try to help us
achieve a more cogent understanding.

73, Jim AC6XG

# 3011. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 21:13:19 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41af804c$1_4@127.0.0.1>
Source record: 85915

Gene Fuller wrote:
> My method solves the problem. Your method leads to endless threads on RRAA.

Your method doesn't begin to solve the problem of tracking
the energy through the system. In fact, it specifically avoids
tracking the energy. My method has made a certain amount of
progress in the direction of understanding energy flow. The key
seems to be that for every case of constructive interference,
there must exist an equal magnitude of destructive interference,
as asserted by Hecht, in _Optics_.
--
73, Cecil http://www.qsl.net/w5dxp

# 3012. Re: Oddity of ground mounted antenna's.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 21:14:44 UTC
From: Lee Hopper <leehopp@centurytel.net>
Message-ID: <41AF85C4.5030804@centurytel.net>
Source record: 85912

Reg Edwards wrote:
> There's a breed of Algerian goats with legs on one side longer than the
> other.

...and to go back the way they came, they must walk backwards?

>
> They live on the sides of steep mountains.
>
>
Cheers - LH

# 3013. Re: Oddity of ground mounted antenna's.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 21:15:29 UTC
From: Lee Hopper <leehopp@centurytel.net>
Message-ID: <aq2dncYAtZppGDLcRVn-oA@centurytel.net>
Source record: 85913

Reg Edwards wrote:
> There's a breed of Algerian goats with legs on one side longer than the
> other.

...and to go back the way they came, they must walk backwards?

>
> They live on the sides of steep mountains.
>
>
Cheers - LH

# 3014. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 21:28:45 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <o11vq0h1c5im3m64qstjump6ronqb5474d@4ax.com>
Source record: 85835

On Thu, 02 Dec 2004 14:46:34 -0600, Cecil Moore <w5dxp@hotmail.com>
wrote:
>Gene Fuller wrote:
>> ...energy/area/time.
>sounds like joules/sec (power) to me. The IEEE Dictionary agrees.
If so, then a strange dictionary indeed (or strange reader),
Gene's term reduces to energyï¿½timeï¿½area^-1 not energyï¿½time^-1

What kind of sound was that anyway?

# 3015. Re: Oddity of ground mounted antenna's.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 21:45:35 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10qv380oo3d7e90@corp.supernews.com>
Source record: 85823

This can easily be done with the free EZNEC demo program available from http://eznec.com. Here's a step-by-step for the demo or any other EZNEC v. 4.0 program:

1. Open example file Vert1.EZ. (Click the Open button, enter Vert1, then click Open in the file selection window.)
2. Click FF Plot to generate a 2D elevation plot of the vertical antenna.
3. In the 2D Plot Window, open the File menu, select Save Trace As, enter a name in the blank box, and click Save. You can close the 2D Plot Window to get it out of the way.
4. Click the View Ant button so you can see what you're doing.
5. Click on the Wires line in the large white window to open the Wires Window.
6. In the Wires Window, open the Wires menu and select Rotate Wires. (This feature isn't available in EZNEC v. 3.0 or earlier versions.)
7. In the Rotate Wires dialog box, make the following changes:
Rotation Amount: Enter the angle of the ground slope, and change the direction to CW (to simulate ground sloping down to the right)
Rotation Axis: Y
Then click Ok. You'll now see the tilted antenna. (The rotation will seem to be CCW, but that's because we're looking at the Y axis in the minus direction.)
8. Click FF Plot to generate a 2D plot.
9. In the 2D Plot window, open the File menu and select Add Trace. Enter the name of the plot of the vertical you saved earlier and click Open. You'll now see the plots of the vertical and tilted antenna superimposed.
10. If you'd like to see the dB difference between plots at any elevation angle, click the name of the recalled trace near the upper left corner of the plot window. The cursor will jump to the recalled trace, and the difference in dB appears as the bottom line of the right column in the data window below the plot. (This feature isn't available in EZNEC v. 3.0 or earlier versions.) If you don't see the data window, open the View menu and click Show Data. You can move the cursor by dragging it with the mouse, or with the arrow keys.
11. To see what the patterns would look like when the ground is tilted, print the plot (File/Print Plot), then rotate it clockwise by the angle of the ground tilt. Note that this assumes that the ground is flat and continues forever at the tilt angle, which of course can't be true. But it'll give you a good general idea of the effect of tilting the antenna.

If you get confused about how the plot is oriented relative to the antenna, go to the View Antenna display. Open the View menu, select Objects, then check the 2D Pattern box. This will superimpose a correctly oriented 2D pattern on the drawing of the antenna.

I did the experiment using a 30 degree tilt, and found a difference of 1.31 dB at an indicated elevation angle of 30 degrees. That would be at the horizon, taking into account the ground tilt. At an indicated elevation angle of 40 degrees (10 degrees above the horizon when ground tilt is considered), the difference is 1.77 dB. You can modify the ground conductivity and permittivity and repeat the experiment to see how this changes with different ground types.

Roy Lewallen, W7EL

Frank wrote:

> Since NEC cannot model a sloping ground, just try modeling a leaning
> vertical, and see how it effects the pattern. I seriously doubt there would
> be much difference. Certainly nothing you would notice.
>
> Frank

# 3016. You have been warned !

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 21:47:15 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <coo2h3$2ep$1@titan.btinternet.com>
Source record: 85907

Variometers are variable inductance coils.
There are two solenoids, one rotating inside the other.
Maximum inductance occurs when the two coils are in phase.
Minimum inductance when in antiphase.
Advantage - no switches.

DO NOT USE IN TRANSMITTER HIGH POWER CIRCUITS !

The whole length of wire is in circuit at all settings of the variometer.

Consequently as the inductance decreases the wire resistance remains constant.

So coil Q falls to very low values at small inductance values. i.e., at the high frequency end of the tuning range - where higher losses and an increase in temperature are already at their worst.

If the two coils are of similar sizes then Q can fall to near zero at low inductance settings.

Some variometers have the inside coil much smaller than the other. The inductance range is relatively small. The reduction in Q may be acceptable for low power applications and receiving purposes.

But the motion of the two coils, one inside the other, built into a working transmitter would fascinate visitors to the shack. An attraction quite capabable of overcoming the disadvantage of a ridiculous low Q at 30 MHz. It's even better than watching one set of 500pF capacitor plates slowly disappearing inside the other.
----
Reg.

# 3017. Re: Trifilar winding -- twist or plait?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 21:49:25 UTC
From: Ken <cprstn54zz@att.net>
Message-ID: <893vq05m9gqns4bgj88b348bhoff877q6p@4ax.com>
Source record: 85905

On Mon, 29 Nov 2004 17:42:15 GMT, "Rick Karlquist N6RK"
<richard@karlquist.removethis.com> wrote:
>Yes it does matter, if you are trying to hold a particular Zo to
>get maximum bandwidth. I use ribbon cable or multiwire
>rotator cable to get the spacing between the wires to be
>consistent. The bandwidth is MUCH wider than you
>get with twisting or braiding.

I happen to have some "rainbow" 28-ga. ribbon that I could try.

What happens when I have gone once around the toroid and need to put
a bunch more windings on? Just lay it on top of the first layer
without regard to the position of what is under?

Ken KC2JDY

Ken
(to reply via email
remove "zz" from address)

# 3018. Radials and HF2V

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 21:54:49 UTC
From: catz <deni1@tiscali.fr>
Message-ID: <MPG.1c19ad98fadc4f5b98968e@news.individual.net>
Source record: 85825

I'm planning to put up a Butternut HF2V, so... thinking about burying
some radials.
Questions...
I have moles in my land, do they eat radials?
What is the best wire to use, ie most durable for buried radials?
Will I be better off with elevated tuned counterpoise wires?
Any advice?

Tks...

73

# 3019. Re: You have been warned !

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 22:04:18 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10qv4bcigm45e5b@corp.supernews.com>
Source record: 85921

Reg Edwards wrote:
> . . .
> But the motion of the two coils, one inside the other, built into a working
> transmitter would fascinate visitors to the shack. An attraction quite
> capabable of overcoming the disadvantage of a ridiculous low Q at 30 MHz.
> It's even better than watching one set of 500pF capacitor plates slowly
> disappearing inside the other.
> ----

Here in the U.S., where conspicuous excess is widely considered a virtue (big guns, big trucks, big bellies, big antennas, big power. . .), you'd surely have to include a fluorescent tube suspended in the middle. It's especially important now that 866A's have become passe.

(I have fond memories from my childhood of a neighbor ham, ...BFB -- 'Barrel Full of Beer', who ran a kW -- at least -- of AM into a lazy H antenna which had a 4 foot fluorescent tube at each of the 4 wire ends. It impressed me as being really cool -- but then I was 11 at the time.)

Roy Lewallen, W7EL

# 3020. Re: Oddity of ground mounted antenna's.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 22:14:32 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <f54vq0h3j4456rf6ufdm4rv4700h5fm8ae@4ax.com>
Source record: 85828

On Thu, 02 Dec 2004 13:45:35 -0800, Roy Lewallen <w7el@eznec.com>
wrote:

>I did the experiment using a 30 degree tilt, and found a difference of
>1.31 dB at an indicated elevation angle of 30 degrees. That would be at
>the horizon, taking into account the ground tilt.

Hi All,

This is a pretty radical slope. The one I lived on was closer to
20-25 degrees and it was (with low brush) a bear to climb (and to fall
without holding a rope for balance). When I do the trig for 30
degrees and stand with my feet one foot apart, shoulders and hips
aligned with the slope, that leaves one foot 7 inches higher than the
other. That's gonna take some stilleto heels. ;-)

That aside for the heartier cragsmen, this also presumes (from EZNEC's
propensity for a flat earth far field model) that the slope is infinte
(or a pretty tall hill indeed). Gee, on that hill everything must be
line of sight anyway! Who needs skip?

But then, no one lives in the valley. :-(

73's
Richard Clark, KB7QHC

# 3021. Re: Trifilar winding -- twist or plait?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 22:16:12 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <3q4vq0h1641miobqas5nf4tbe3m6fkvocg@4ax.com>
Source record: 85833

On Thu, 02 Dec 2004 16:49:25 -0500, Ken <cprstn54zz@att.net> wrote:

>What happens when I have gone once around the toroid and need to put
>a bunch more windings on?

Hi Ken,

Get a bigger toroid.

73's
Richard Clark, KB7QHC

## 3022. Re: What causes this?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 22:17:29 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <coo49p$4s1$1@sparta.btinternet.com>
Source record: 85841

> So the common, and valid, practice is to prune
> the antenna for lowest SWR meter reading. If you do that, there's no
> need to worry about where resonance might be.

==========

An excellent description, Roy.

There's a minor omission. You omitted to say that the SWR meters is
redundant because the actual reading is disregarded. There are other
reasons of course. Only a TLI is needed.
----
Reg

# 3023. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 22:27:30 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <315vq0ts4kj66v6v1t11qjftnvhb039o63@4ax.com>
Source record: 85910

On Thu, 02 Dec 2004 13:10:18 -0800, Jim Kelley <jwkelley@nospam.edu>
wrote:

>When some of us have a
>question about something, we respond by flinging poison tipped daggers
>at those who, in the persuit of a common interest, try to help us
>achieve a more cogent understanding.

Hi Jim,

Talk about parsing. Which way are the daggers flying today?

I hope explaining doesn't require the theory of optics or someone's
eye will be put out. ;-(

73's
Richard Clark, KB7QHC

# 3024. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 22:28:26 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <coo6ci$eu$1@news.service.uci.edu>
Source record: 85898

Richard Clark wrote:

> On Thu, 02 Dec 2004 14:46:34 -0600, Cecil Moore <w5dxp@hotmail.com>
> wrote:
>
>>Gene Fuller wrote:
>>
>>>...energy/area/time.
>>
>>sounds like joules/sec (power) to me. The IEEE Dictionary agrees.
>
> If so, then a strange dictionary indeed (or strange reader),
> Gene's term reduces to energyï¿½timeï¿½area^-1 not energyï¿½time^-1

Every thorough discussion of the Poynting Theorem stresses the caveat
that Gene poynted out.

Born and Wolf does observe that the Poynting vector is adequately
defined as the "density of the energy flow", "the amount of energy which
crosses a boundary surface per second a unit area normal to the
directions of E and H." They add however:
"It should be noted that the interpretation of S as energy flow (more
precisely as the density of the flow) is an abstraction which introduces
a certain degree of arbitrariness. For the quantity which is physically
significant is, according to (41) [an expression for the rate of change
of energy within a volume], not S itself, but the integral of S . n
taken over a _closed_ surface." Emphasis on 'closed' is mine.

They also point out that the integral of the Poynting vector over an
arbitrary volume which contains no radiator or absorber of energy, or
where no mechanical work is done, is equal to zero. They cite
conservation of energy as the directive.

73, Jim AC6XG

## 3025. Re: What causes this?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 23:00:24 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10qv7kaergijc96@corp.supernews.com>
Source record: 85838

No, the SWR meter is useful in determining the quality of the match. I
was careful to say "SWR meter reading" to distinguish it from the SWR on
a transmission line.

Roy Lewallen, W7EL

Reg Edwards wrote:
>>So the common, and valid, practice is to prune
>>the antenna for lowest SWR meter reading. If you do that, there's no
>>need to worry about where resonance might be.
>
>
> ==========
>
> An excellent description, Roy.
>
> There's a minor omission. You omitted to say that the SWR meters is
> redundant because the actual reading is disregarded. There are other
> reasons of course. Only a TLI is needed.
> ----
> Reg
>
>

# 3026. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 23:08:00 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <kfNrd.83374$7i4.54632@bgtnsc05-news.ops.worldnet.att.net>
Source record: 85847

Richard,

Your point is correct of course, but I must highlight an ASCII-based spot of confusion in my post.

Both area and time are in the denominator. I was sloppy in writing the equation.

energy / (area * time)

Of course the area is still there, and it is an energy flow 'density'.

But hey, what's a few missing units among friends?

73,
Gene
W4Sz

Richard Clark wrote:
> On Thu, 02 Dec 2004 14:46:34 -0600, Cecil Moore <w5dxp@hotmail.com>
> wrote:
>
>>Gene Fuller wrote:
>>
>>>...energy/area/time.
>>
>>sounds like joules/sec (power) to me. The IEEE Dictionary agrees.
>
> If so, then a strange dictionary indeed (or strange reader),
> Gene's term reduces to energyï¿½timeï¿½area^-1 not energyï¿½time^-1
>
> What kind of sound was that anyway?

# 3027. Re: Oddity of ground mounted antenna's.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 23:30:49 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <coo8j8$aoe$1@titan.btinternet.com>
Source record: 85844

> Reg Edwards wrote:
> > There's a breed of Algerian goats with legs on one side longer than the
> > other.
>
> ...and to go back the way they came, they must walk backwards?
> >
> Cheers - LH

========================================

No! They just keep walking in the same direction. They have inherited a gene for sensing contour lines, never failing to get to where they want to be.

Hannibal, around 219BC, being unaware of genes in those ancient days, considered mountain goats could be useful on the famous crossing of the Swiss Alps on his way to Rome. But on second thoughts he decided to use elephants who, as you know, walk trunk-to-tail. Neither he nor the elephants quite made it to Rome.
---
Reg

# 3028. Re: how about a maritime mobile station?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 23:34:38 UTC
From: kelly@dvol.com
Message-ID: <d22b54c3.0412021534.2e447fc4@posting.google.com>
Source record: 85919

DB Rea <danielb@trib.com> wrote in message
news:<1ea5j3t8b5334$.1645ehj6y4lmx.dlg@40tude.net>...
> I found a reference to this in rec.radio.broadcasting. Anyone interested
> in 160-meter maritime mobile?
>
> http://www.thesuperstation.co.uk/sale.htm
>
> cheers from way too far inland-

Jeeeeeesus!!

> Dan NK7H

w3rv

## 3029. Question on antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-02 23:47:54 UTC
From: VS <bs@hotmail.com>
Message-ID: <KQNrd.9157$1z5.3151@trnddc06>
Source record: 85916

Does anyone know the specs on a kenwood MA-700 dual band antenna.

# 3030. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-03 00:10:14 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41aface5$1_3@127.0.0.1>
Source record: 85903

Richard Clark wrote:
> Cecil Moore <w5dxp@hotmail.com> wrote:
>
>>Gene Fuller wrote:
>>>...energy/area/time.
>>
>>sounds like joules/sec (power) to me. The IEEE Dictionary agrees.
>
> If so, then a strange dictionary indeed (or strange reader),
> Gene's term reduces to energyï¿½timeï¿½area^-1 not energyï¿½time^-1

I'm surprised that you don't know that energy/(area*time) is the
same as energy/(time*area) which is watts per square meter. The
IEEE Dictionary certainly knows that.
--
73, Cecil http://www.qsl.net/w5dxp

# 3031. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-03 00:24:28 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41afb03a_2@127.0.0.1>
Source record: 85830

Jim Kelley wrote:
> They also point out that the integral of the Poynting vector over an
> arbitrary volume which contains no radiator or absorber of energy, or
> where no mechanical work is done, is equal to zero. They cite
> conservation of energy as the directive.

All that says is: if the flowing energy doesn't change, it hasn't
been dissipated or radiated. The energy is in the process of being
losslessly transferred from one place to another with joules/sec
passing an infinite number of points in space. From _Optics_,
by Hecht: "The energy streaming through space in the form of an
electromagnetic wave, is shared equally between the constituent
electric and magnetic fields. ... We now make the reasonable
assumption (for isotropic media) that the energy flows in the
direction of the propagation of the wave."
--
73, Cecil http://www.qsl.net/w5dxp

# 3032. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-03 00:31:38 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <lhcvq0d29jivkufem23i4rvgh8sh2at5eg@4ax.com>
Source record: 85914

On Thu, 02 Dec 2004 18:10:14 -0600, Cecil Moore <w5dxp@hotmail.com>
wrote:
>>>sounds like joules/sec (power) to me.
>energy/(area*time) is the same as energy/(time*area) which is watts per square meter.
Which still leaves you high and shy of area^-1

What was that sound?

# 3033. Re: What causes this?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-03 01:02:43 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <coodvj$iha$1@sparta.btinternet.com>
Source record: 85836

The quality of the match is NOT the SWR on ANY line. Quality is the degree
of conformance to specified requirements. Or how closely the transmitter
load matches the required value.

The meter does NOT measure the SWR on the line between itself and the
antenna. It does NOT measure the SWR on any real line. If only because no
other real line exists The meter is redundant.

As discussed elsewhere, other quantities which an SWR meter purports to
measure are Forward and Reflected power, both at the same place and same
time. Which are just as imaginary as the transmission line the meter assumes
they exist on.

Imaginary quantities can be useful at times. But at least the name of the
imaginary number "j" does not cause anywhere near as much confusion about
what is really happening as the name "SWR Meter" does. Witness the
arguments amongst otherwise sane, logical, intelligent, educated people.
----
Reg.

==========

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:10qv7kaergijc96@corp.supernews.com...
> No, the SWR meter is useful in determining the quality of the match. I
> was careful to say "SWR meter reading" to distinguish it from the SWR on
> a transmission line.
>
> Roy Lewallen, W7EL
>
> Reg Edwards wrote:
> >>So the common, and valid, practice is to prune
> >>the antenna for lowest SWR meter reading. If you do that, there's no
> >>need to worry about where resonance might be.
> > >
> > >
> > > ==========
> > >
> > > An excellent description, Roy.
> > >
> > > There's a minor omission. You omitted to say that the SWR meters is
> > > redundant because the actual reading is disregarded. There are other
> > > reasons of course. Only a TLI is needed.
> > > ----
> > > Reg
> > >

> >

# 3034. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-03 01:06:28 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <arcvq01qdf04v4ieo3e87hlfblrgcocbl2@4ax.com>
Source record: 85902

On Thu, 02 Dec 2004 14:28:26 -0800, Jim Kelley <jwkelley@nospam.edu>
wrote:
>Born and Wolf does observe that the Poynting vector is adequately
>defined as the "density of the energy flow", "the amount of energy which
>crosses a boundary surface per second a unit area normal to the
>directions of E and H."

Hi Jim,

You were desirous of "value added" writing, I believe. The
explanation and Gene's observation that this vector is not about power
has more correlatives in radiation, of the observable kind. We may as
well tread into the optics side of the family as long as we are here.

The same area bounded expression for light is Lux whose definition is
Lumens (power or energy/second) per square Meter (area).

Lumens are printed (mandate of law) on every box of light bulbs.

[Daggers fly here]
Unfortunately our resident Optical (sic) wizard here, has never been
able to express ANY answer for his Optical pronouncements in ANY
Optical term, not even Lumens. Bringing such topics as Optics to the
discussion and leaving them adrift demands sneers in response to such
babbling sophistries.

73's
Richard Clark, KB7QHC

# 3035. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-03 01:13:31 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <urevq0dsm346q46as6bb0um0ejfucnvotp@4ax.com>
Source record: 85824

On Thu, 02 Dec 2004 23:08:00 GMT, Gene Fuller <W4SZzzzzzz@att.net>
wrote:
>But hey, what's a few missing units among friends?

Hi Gene,

Well, I knew that, and it didn't matter to me. The point of response
was not to correct the mistake of transcription (a lesser
transgression), but to correct the mistake of confirmation (a sin)
which is one of those things that can cascade into attributions
supporting faulty Initial Conditions.

73's
Richard Clark, KB7QHC

# 3036. Re: how about a maritime mobile station?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-03 01:42:05 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <10qvh3jrq5s3k95@corp.supernews.com>
Source record: 85908

Brian Kelly wrote:
> DB Rea <danielb@trib.com> wrote in message
news:<1ea5j3t8b5334$.1645ehj6y4lmx.dlg@40tude.net>...
>
>>I found a reference to this in rec.radio.broadcasting. Anyone interested
>>in 160-meter maritime mobile?
>>
>>http://www.thesuperstation.co.uk/sale.htm
>>
>>cheers from way too far inland-
>
>
> Jeeeeeesus!!
>
>
>>Dan NK7H
>
>
> w3rv
The MV Communicator was last used as a pirate radio station off the
dutch coast.

Dave WD9BDZ

# 3037. smallest wire gauge for dipole: full kW?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-03 02:42:42 UTC
From: gibberdill <gibberdill@bak.rr.com>
Message-ID: <CoQrd.1553$Ew6.1378@twister.socal.rr.com>
Source record: 85906

I plan to use my 26 ga. 75 meter dipole (stealth antenna)-- now with 100 W--
with my new amplifier, with 800-1000 W output. Is that too small a gauge?
How much current can I expect it to take? Even if it doesn't get too hot,
will it be significantly less efficient?

## 3038. Attach antenna to FM radio

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-03 03:36:09 UTC
From: Walt Stanley <waltermas@comcastNOSPAM.net>
Message-ID: <8qmvq0p3umgotlf7jqbqt5igj613ooqur7@4ax.com>
Source record: 85826

I need some help from you experts. I have a radio that uses the power cord as the antenna. I need a better antenna but have no idea where to add it. I don't know if just soldering a length of wire to the connection point of the ground wire would help or better to add a two wire antenna. I just don't know where to add the wires, if it is possible.
TIA, Walt

# 3039. Re: Indoor AM Ant

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-03 03:41:44 UTC
From: Diane <dke@mn.rr.com>
Message-ID: <eeRrd.5135$NO5.2304@twister.rdc-kc.rr.com>
Source record: 85822

I don't have the S-40B yet. May end up with other boatanchor if my patience runs out. I think I wil try the wire first and see. Radio people sure are helpful. Thanks all.
Phil (not wife Diane)

"Bob Miller" <rmiller47@satx.rr.com> wrote in message
news:atguq05qp8pbhlnkvqvrgjp23b4nisohph@4ax.com...
> On Thu, 02 Dec 2004 15:52:44 GMT, "John Smith"
> <kd5yikes@mindspring.com> wrote:
>
>>
>>"Diane" <dke@mn.rr.com> wrote in message
>>news:rXurd.77710$ye4.67402@twister.rdc-kc.rr.com...
>>> Is there any half-way decent indoor ant I can use on an old
>>> Hallicrafters
>>> S-40B? I mainly want to extend reception for nightime MW. Thanks.
>>> -Phil
>>
>>
>>Hi, Phil -
>>
>>Why not just try the wire first before buying a tuner and see if you're
>>happy with the results? Can't hurt anything.
>>
>>John
>>
>
> the s40b has no internal antenna -- I'm guessing she has some kind of
> wire hanging off the antenna terminal now
>
> bob
> k5qwg
>
>

## 3040. feeding vertical dipoles

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-03 05:28:03 UTC
From: Angela & Gary <gmbelcas@charter.net>
Message-ID: <gmbelcas-51381F.21280302122004@comcast.dca.giganews.com>
Source record: 85829

Anyone have an idea as to how much the radiation pattern will be altered if the coax feed runs down the vertical dipole as opposed to coming out from the feedpoint at a right angle ? Tnx for the help.

Gary

# 3041. Re: feeding vertical dipoles

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-03 06:01:55 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <2000r0pfuapt7617v34719r4mpjoaanff3@4ax.com>
Source record: 85834

On Thu, 02 Dec 2004 21:28:03 -0800, Angela & Gary
<gmbelcas@charter.net> wrote:
>Anyone have an idea as to how much the radiation pattern will be altered
>if the coax feed runs down the vertical dipole as opposed to coming out
>from the feedpoint at a right angle ? Tnx for the help.

Hi Gary<

Not so much that you would notice. It might upset tuning, but even
there it is a toss up. About the only screw up would be that the
lower element goes to the coax center conductor, and your coax shield
makes contact with it while both drop in vicinity.

73's
Richard Clark, KB7QHC

# 3042. Re: Attach antenna to FM radio

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-03 06:13:15 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <p900r0diio53tin095rh2v6io8u3mkciv2@4ax.com>
Source record: 85842

On Thu, 02 Dec 2004 22:36:09 -0500, Walt Stanley
<waltermas@comcastNOSPAM.net> wrote:

>I need some help from you experts. I have a radio that uses the power
>cord as the antenna. I need a better antenna but have no idea where
>to add it. I don't know if just soldering a length of wire to the
>connection point of the ground wire would help or better to add a two
>wire antenna. I just don't know where to add the wires, if it is
>possible.

Hi Walt,

A ground wire wouldn't be advisable, I wonder if you have anything
metal (that actually went to a ground in the set) to attach to anyway.
Sounds like your set is powered with a two prong, polarized plug and
the case is probably plastic as a safety consideration.

As for an external antenna - again there seems to be no provision, nor
expectation that this is even an option. As it appears it is
intimately tied into the power cord, trying to preserve that feature
and/or attaching your own connection may be lethal.

About the only remaining choice is for passive coupling where you take
an external antenna, bring its lead down and wrap it several times
around the cord (or tape it along its length) and hope. Leave all
insulations intact, this is simply a function of proximity, not
connection. Even this is a spin of the wheel.

73's
Richard Clark, KB7QHC

# 3043. Re: Is this jack wired correctly?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-03 06:52:19 UTC
From: Ken Fowler <ko6no@yahoo.com>
Message-ID: <loWdnYFadKq5kC3cRVn-rg@comcast.com>
Source record: 85911

On 1-Dec-2004, Ken <cprstn54zz@att.net> wrote:

> Please see J4 for a TenTec RX-320 -- copied from the TenTec web site:
> http://home.att.net/~cprstn54/J4.JPG
>
> Am I right that this a a stereo jack with the mono signal on ring?
>
> If so, why would anyone wire up a jack this way? A mono plug would
> short the signal to ground.
>
> Ken KC2JDY

That's the way the Mic input for PC Sound Adapters is wired. The microphone for PC's has a STEREO
plug with the signal on the RING only. I found out the hard way that a microphone with a MONO plug
will short out the MIC input.

TenTec probably wired it that way so that a PC microphone would work.

Ken KO6NO

# 3044. Re: Oddity of ground mounted antenna's.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-03 07:31:01 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <9gaBBTD1YBsBFA7u@ifwtech.co.uk>
Source record: 85899

chuck wrote:
>
>Don't know from personal experience, but Les Moxon, author of HF
>Antennas for all Locations, seems to believe it creates an advantage.
>You might want to read his thoughts on that.
>

The advantages of which Moxon wrote are for *horizontal* polarization only. If the antenna height above ground is correct, the ground reflection can reinforce low-angle radiation in the downslope direction.

But Moxon also shows specifically that there are *no* such advantages for vertical polarization. The ground-reflected ray is lost at a high angle.

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

## 3045. Open wire source?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-03 11:21:12 UTC
From: Bob P <nospam@nospam.end>
Message-ID: <ArKdnd9Y_oNo0S3cRVn-gw@comcast.com>
Source record: 85840

Anyone know of any outfits selling open wire line?
I know how to homebrew it, just too lazy.
Bob
kb8tl / at / yahoo / dot / com

# 3046. Re: Open wire source?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-03 11:54:18 UTC
From: KC1DI <elbc2@pivot.net>
Message-ID: <41B053EA.2040204@pivot.net>
Source record: 85848

Bob P wrote:
> Anyone know of any outfits selling open wire line?
> I know how to homebrew it, just too lazy.
> Bob
> kb8tl / at / yahoo / dot / com
>
>
There are several here is a list of a few.

http://www.w7fg.com/ant.htm
http://www.davisrf.com/ham1/ladder.htm
http://www.radiobooks.com/
http://www.universal-radio.com/catalog/cable/3028.html

There are more you can get them by doing a google search for Ladder line.

hope this helps.
73 Dave kc1di

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# 3047. Re: Open wire source?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-03 11:55:32 UTC
From: KC1DI <elbc2@pivot.net>
Message-ID: <41B05434.2070008@pivot.net>
Source record: 85845

Bob P wrote:
> Anyone know of any outfits selling open wire line?
> I know how to homebrew it, just too lazy.
> Bob
> kb8tl / at / yahoo / dot / com
>
>
There are several here is a list of a few.

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There are more you can get them by doing a google search for Ladder line.

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73 Dave kc1di

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# 3048. Re: Open wire source?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-03 11:56:11 UTC
From: KC1DI <elbc2@pivot.net>
Message-ID: <41B0545B.2000005@pivot.net>
Source record: 85920

Bob P wrote:
> Anyone know of any outfits selling open wire line?
> I know how to homebrew it, just too lazy.
> Bob
> kb8tl / at / yahoo / dot / com
>
>
There are several here is a list of a few.

http://www.w7fg.com/ant.htm
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There are more you can get them by doing a google search for Ladder line.

hope this helps.
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# 3049. Re: Open wire source?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-03 11:57:31 UTC
From: KC1DI <elbc2@pivot.net>
Message-ID: <41B054AB.1080203@pivot.net>
Source record: 85917

Bob P wrote:
> Anyone know of any outfits selling open wire line?
> I know how to homebrew it, just too lazy.
> Bob
> kb8tl / at / yahoo / dot / com
>
>
There are several here is a list of a few.

http://www.w7fg.com/ant.htm
http://www.davisrf.com/ham1/ladder.htm
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http://www.universal-radio.com/catalog/cable/3028.html

There are more you can get them by doing a google search for Ladder line.

hope this helps.
73 Dave kc1di

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# 3050. Re: Open wire source?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-03 11:57:58 UTC
From: KC1DI <elbc2@pivot.net>
Message-ID: <41B054C6.7050900@pivot.net>
Source record: 85904

Bob P wrote:
> Anyone know of any outfits selling open wire line?
> I know how to homebrew it, just too lazy.
> Bob
> kb8tl / at / yahoo / dot / com
>
>
There are several here is a list of a few.

http://www.w7fg.com/ant.htm
http://www.davisrf.com/ham1/ladder.htm
http://www.radiobooks.com/
http://www.universal-radio.com/catalog/cable/3028.html

There are more you can get them by doing a google search for Ladder line.

hope this helps.
73 Dave kc1di

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# 3051. Re: Open wire source?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-03 12:00:09 UTC
From: KC1DI <elbc2@pivot.net>
Message-ID: <q8l0r0t54rd7phv21u5vruikkijuc78bfp@4ax.com>
Source record: 85831

I'm sorry for the multiple listing , my server went nuts on me.
cheers,
73 Dave kc1di

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# 3052. Re: You have been warned !

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-03 12:45:20 UTC
From: kelly@dvol.com
Message-ID: <d22b54c3.0412030445.60211c86@posting.google.com>
Source record: 85859

Roy Lewallen <w7el@eznec.com> wrote in message
news:<10qv4bcigm45e5b@corp.supernews.com>...
> Reg Edwards wrote:
> > . . .
> > But the motion of the two coils, one inside the other, built into a working
> > transmitter would fascinate visitors to the shack. An attraction quite
> > capabable of overcoming the disadvantage of a ridiculous low Q at 30 MHz.
> > It's even better than watching one set of 500pF capacitor plates slowly
> > disappearing inside the other.
> > ----
>
> Here in the U.S., where conspicuous excess is widely considered a virtue
> (big guns, big trucks, big bellies, big antennas, big power. . .), you'd
> surely have to include a fluorescent tube suspended in the middle. It's
> especially important now that 866A's have become passe.
>
> (I have fond memories from my childhood of a neighbor ham, ...BFB --
> 'Barrel Full of Beer', who ran a kW -- at least -- of AM into a lazy H
> antenna which had a 4 foot fluorescent tube at each of the 4 wire ends.
> It impressed me as being really cool -- but then I was 11 at the time.)

If it wasn't for the fluorescent tube I taped to the wire going out
the back window of my bedroom to a neighbor's tree yonder I never
would have found the hot spot tap on my 80M ARC-5 tank coil. 1953 age
16? Precocious I was not and I still ain't. I forget. But then I
discovered that tuning up by maxing the output of Mrs. Chandler's, the
next door neighbor the pore thing, bathroom lamp was a more better
route to go than the fluorescent tube when it got down to flooding the
neighborhood with RF then tuning around with the S-40B for a contact.

We're ALL nuts.

>
> Roy Lewallen, W7EL

w3rv

# 3053. Re: feeding vertical dipoles

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-03 12:51:59 UTC
From: K7MEM <k7mem@myrealbox.com>
Message-ID: <copnhf$9kr2@cui1.lmms.lmco.com>
Source record: 85861

Angela & Gary wrote:
> Anyone have an idea as to how much the radiation pattern will be altered
> if the coax feed runs down the vertical dipole as opposed to coming out
> from the feedpoint at a right angle ? Tnx for the help.
>
> Gary

You probably won't be able to notice any difference, as long as the coax doesn't touch the lower element. Spacing of an inch or two is all that should be necessary.

I have a vertical dipole for 10 Meters. The lower section consists of a ~2 inch pipe and the coax is run inside the pipe, to the center of the dipole. The upper section is a thinner rod, because it's not needed for support like the bottom section is. Each element being a different diameter poses some problems in matching, but in the end, it works very well.

Martin - K7MEM

--
Martin E. Meserve - K7MEM
http://www.k7mem.com

# 3054. Re: Attach antenna to FM radio

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-03 12:54:00 UTC
From: Walt Stanley <waltermas@comcastNOSPAM.net>
Message-ID: <kao0r09v1bdh7rhc0tk8fn5sdl155gbtbq@4ax.com>
Source record: 85855

On Fri, 03 Dec 2004 06:13:15 GMT, Richard Clark <kb7qhc@comcast.net>
wrote:

>On Thu, 02 Dec 2004 22:36:09 -0500, Walt Stanley
><waltermas@comcastNOSPAM.net> wrote:
>
>>I need some help from you experts. I have a radio that uses the power
>>cord as the antenna. I need a better antenna but have no idea where
>>to add it. I don't know if just soldering a length of wire to the
>>connection point of the ground wire would help or better to add a two
>>wire antenna. I just don't know where to add the wires, if it is
>>possible.
>
>Hi Walt,
>
>A ground wire wouldn't be advisable, I wonder if you have anything
>metal (that actually went to a ground in the set) to attach to anyway.
>Sounds like your set is powered with a two prong, polarized plug and
>the case is probably plastic as a safety consideration.
>
>As for an external antenna - again there seems to be no provision, nor
>expectation that this is even an option. As it appears it is
>intimately tied into the power cord, trying to preserve that feature
>and/or attaching your own connection may be lethal.
>
>About the only remaining choice is for passive coupling where you take
>an external antenna, bring its lead down and wrap it several times
>around the cord (or tape it along its length) and hope. Leave all
>insulations intact, this is simply a function of proximity, not
>connection. Even this is a spin of the wheel.
>
>73's
>Richard Clark, KB7QHC

Thanks Richard:
Yes you are right about the radio. I'll try the wrapping "and hope".
Walt

# 3055. Re: Open wire source?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-03 13:02:26 UTC
From: k9sqg@aol.com
Message-ID: <20041203080226.07763.00001608@mb-m01.aol.com>
Source record: 85853

Are you interested in true open wire line or window line?

# 3056. Re: Indoor AM Ant

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-03 13:02:31 UTC
From: K7MEM <k7mem@myrealbox.com>
Message-ID: <copo56$4hl1@cui1.lmms.lmco.com>
Source record: 85856

> "Bob Miller" <rmiller47@satx.rr.com> wrote in message
> news:atguq05qp8pbhlnkvqvrgjp23b4nisohph@4ax.com...
>
>>On Thu, 02 Dec 2004 15:52:44 GMT, "John Smith"
>><kd5yikes@mindspring.com> wrote:
>>
>>>"Diane" <dke@mn.rr.com> wrote in message
>>>news:rXurd.77710$ye4.67402@twister.rdc-kc.rr.com...
>>>
>>>>Is there any half-way decent indoor ant I can use on an old
>>>>Hallicrafters
>>>>S-40B? I mainly want to extend reception for nightime MW. Thanks.
>>>>-Phil
>>>
>>>
>>>Hi, Phil -
>>>
>>>Why not just try the wire first before buying a tuner and see if you're
>>>happy with the results? Can't hurt anything.
>>>
>>>John
>>>
>>
>>the s40b has no internal antenna -- I'm guessing she has some kind of
>>wire hanging off the antenna terminal now
>>
>>bob
>>k5qwg
>
> Diane wrote:
> I don't have the S-40B yet. May end up with other boatanchor if my patience
> runs out. I think I wil try the wire first and see. Radio people sure are
> helpful. Thanks all.
> Phil (not wife Diane)
>

If your living in an apartment or need to keep things stealthy, for
appearance sake, a good antenna can be had by connecting to a close by
travis rod. You may have one that leads out to a balcony or patio or just
on a big bay window. I snake a thin wire along the molding, from my
receiver, up to the travis rod. The longer the rod the better. Because
of paint, electrical connection between the expandable sections can
be a little problem, but that can be fixed by inserting some small screws.

Martin - K7MEM
--
Martin E. Meserve - K7MEM
http://www.k7mem.com

# 3057. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-03 15:00:38 UTC
From: Bart Rowlett <bart@wb6hqk.ampr.org>
Message-ID: <41B07F96.4030707@wb6hqk.ampr.org>
Source record: 85850

Jim Kelley wrote:
>
> I think the source of part of the confusion here is that some people
> apparently interpret the 'forward power' reading on their meter to mean
> the power into their transmission line.

It's not.

The power input to the transmission line is the instantaneous power,
V(t) * I(t), averaged over one cycle. This is the value indicated by a
classic AC wattmeter used in the power industry. The Bird wattmeter
indicates a so called 'forward' and 'reverse' power, neither of which
are truly power, and have been discussed ad infinitum in this newsgroup.
The difference between the 'forward' and 'reverse' reading on the Bird
wattmeter is equal to the power entering the transmission line.

bart
wb6hqk

# 3058. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-03 15:25:01 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41b08021$1_4@127.0.0.1>
Source record: 85858

Bart Rowlett wrote:
> The difference between the 'forward' and 'reverse' reading on the Bird
> wattmeter is equal to the power entering the transmission line.

It can easily be proven that the energy in the forward wave that
has not yet been reflected plus the reflected energy is still in
the transmission line. It can be proven, using TV ghosting, that
the reflected energy has made a round trip to the load and back.

It sure would alleviate the confusion if everyone would say,
"... is equal to the net power entering the transmission line."

re dB:

If one is measuring the losses in a 1/4WL stub with the following
configuration using a signal generator equipped with an ideal
circulator and circulator load resistor (SGCL):

SGCL----1/4WL stub-----

What are the losses in the stub in dB? :-)
--
73, Cecil http://www.qsl.net/w5dxp

# 3059. Re: Oddity of ground mounted antenna's.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-03 15:30:55 UTC
From: Frank <ve6cb@NOSPAM.telus.net>
Message-ID: <PE%rd.277566$9b.141613@edtnps84>
Source record: 85851

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:10qv380oo3d7e90@corp.supernews.com...
> This can easily be done with the free EZNEC demo program available from
> http://eznec.com. Here's a step-by-step for the demo or any other EZNEC v.
> 4.0 program:
>
> 1. Open example file Vert1.EZ. (Click the Open button, enter Vert1, then
> .........

> .........Objects, then check the 2D Pattern box. This will superimpose a
> correctly oriented 2D pattern on the drawing of the antenna.
>
> I did the experiment using a 30 degree tilt, and found a difference of
> 1.31 dB at an indicated elevation angle of 30 degrees. That would be at
> the horizon, taking into account the ground tilt. At an indicated
> elevation angle of 40 degrees (10 degrees above the horizon when ground
> tilt is considered), the difference is 1.77 dB. You can modify the ground
> conductivity and permittivity and repeat the experiment to see how this
> changes with different ground types.
>
> Roy Lewallen, W7EL
>
> Frank wrote:
>
>> Since NEC cannot model a sloping ground, just try modeling a leaning
>> vertical, and see how it effects the pattern. I seriously doubt there
>> would be much difference. Certainly nothing you would notice.
>>
>> Frank

Thanks for the info, but I already have the EZNEC demo. It does seem to be an excellent program, providing a low cost antenna modeling tool. I have been using another version of NEC for quite a few years and, to be honest, I prefer to work directly with the NEC cards. I feel lost if I cannot get in and edit the lines of code. I must admit I often use some of the additional program features to check if I have the correct card sequence, and also for tag rotation. I can also use any card listed in the NEC User's Guide.

Fact is I was not that interested in actually modeling a leaning vertical, although the problem is trivial. Now that you have done it, I may give it a try to see if I get the same results. Assume you used a slightly elevated radial ground plane with the S/N ground model applied.

Regards,

Frank

# 3060. Re: Oddity of ground mounted antenna's.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-03 15:32:51 UTC
From: raiar@bbs.galilei.com.nospam
Message-ID: <41b0814f.495836171@news.galilei.com>
Source record: 85849

Hi Chuck

At least we have one sane person in the group eh!

I moved from St. Louis to Knoxville last year, as of yet I have not installed my HF9V here, in St. Louis it was mounted vertical on flat ground with about 3,500 feet of radials.

The only logical place for me to install my antenna is some 100 feet below the top of our hill, because of the radial bed. The grade of the hill is roughly a 30 inch average drop every 10 feet at the top of the hill.

Unless I build an elevated counterpoise that would have one side of it about 20 feet in the air, how would the underground radials affect the operation of the antenna if it is vertical?

Of the hams I have spoken with, those that have theirs vertical say there is no difference whether the antenna is vertical or not, and they should be mounted vertically.
Of those that have theirs leaning perpendicular to the grade line, they claim they could not communicate with certain stations when their antenna was vertical, but can with it perpendicular.

Although Knoxville is considered to be in a Valley, my home is situated on the north slope near the top of one of the foothills, but my property does go to the top, unfortunately, a little too far away from the house for the VHF/UHF, but it is roughly 30 feet above the crest of the hill, 60 feet above ground level at the shack.

I guess I could install two separate mounts, one vertical and one perpendicular and try both ways, but retuning those HF9V's especially when you have the 160 coil is a real nightmare.

FWIW: I cleared a line through the woods to run some dipoles. My first installation I mounted the dipoles horizontal with the grade line. But after putting up the VHF/UHF tower I moved many of the dipoles upward so they are closer to level. On the higher bands I did notice some difference, but on the lower bands they seemed to work about equally as well.

It seems all the 10 meter paper chasers have their ground mounted antennas perpendicular to the ground, while serious hams have theirs all mounted vertically.

Even those hams who live in the bottom of the valley have no trouble with HF communications, but those on top of hills often use large

beams and yagi's to take advantage of their prime location.

I have no antenna restrictions at my new home here, Yeah, other than what the FAA dictates regarding lighting if they are over a certain height.

TTUL
Gary

chuck <chuck@nospam.net> verbositized:

>Hello Gary,
>
>Don't know from personal experience, but Les Moxon, author of HF
>Antennas for all Locations, seems to believe it creates an advantage.
>You might want to read his thoughts on that.
>
>Good luck.
>
>Chuck

# 3061. Re: Oddity of ground mounted antenna's.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-03 16:01:24 UTC
From: CW <cmagers@earthlink.net>
Message-ID: <idqdnXoyDN49EC3cRVn-iQ@comcast.com>
Source record: 85854

And only walk in one direction?

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:consua$ouo$1@hercules.btinternet.com...
> There's a breed of Algerian goats with legs on one side longer than the
> other.
>
> They live on the sides of steep mountains.
>
>

# 3062. For Sandra Smith about InfoRelation.com

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-03 16:27:37 UTC
From: inforelationX@yahoo.com
Message-ID: <5a99ce01.0412030827.3b4b639b@posting.google.com>
Source record: 85860

Hallo,

I have visited InfoRelation.com and I would like to thank you for drawing
my attention to this service ;-). The idea of connecting demand
and supply for info, knowledge etc is great! Thanks to this I was able
to find an expert in the field of my interest and hobby.
As regards your advertisement I think that perhaps you offer too much
money to the members of the projetc team ;-).

Best regards,
Donald Martin

# 3063. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-03 17:21:59 UTC
From: w9dmk@crosslink.net
Message-ID: <41b01ed1.34790275@news.crosslink.net>
Source record: 85852

On Thu, 02 Dec 2004 09:47:54 -0600, Cecil Moore <w5dxp@hotmail.com>
wrote:

>
>Consider an earlier example made up of lossless lines:
>
>100W XMTR---50 ohm---+---one second long 291.5 ohm---50 ohm load
>
>The voltage reflection coefficient at the load is 0.707. The power
>reflection at the load is 0.5, i.e. half the power is reflected.
>
>After steady-state has been reached, the XMTR has output 300 more
>joules than the load has accepted. A smaller real-world experiment
>will easily verify that it is a fact that all energy sourced that
>has not reached the load must necessarily be confined to circulating
>energy or losses in the transmission line.
>
>Question: In the above example, where are those 300 joules of energy
>located and what is happening to them?
>
>We know that 300 joules is wave energy and RF waves always move
>at the speed of light, i.e. they cannot stand still. So please
>determine how much energy is moving and in which of only two
>possible directions.

Dear Cecil,

Here's my guesses -
The 300 joules of energy decays at a particular rate - i.e., in a certain interval of time, 63.2% of it will have been converted to and become dissipated as heat. During that same time interval,Ti, there will be an equal amount of energy introduced to replenish the amount lost. In other words, there will be a continuum of energy transferring into the transmission line to exactly make up for that lost in any given period of time.

Eventually, someone will disconnect the source generator at time T2. However, the load will continue to receive energy for a length of time, Ti, at which point roughly 63.2% of 300 joules of energy will have been dissipated in the load. If we wait long enough, 99.9% of the 300 joules will have been dissipated, but it will take forever for the last little bit to disappear.

It kind of makes you think in terms of "life everlasting", doesn't it?

73,

Bob, W9DMK, Dahlgren, VA
http://www.qsl.net/w9dmk

# 3064. Re: For Sandra Smith about InfoRelation.com

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-03 17:46:35 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <g791r09e9ramobfjoirut73t3res1lus4k@4ax.com>
Source record: 85857

On 3 Dec 2004 08:27:37 -0800, inforelationX@yahoo.com (inforelationX)
wrote:

>I have visited InfoRelation.com

and it would appear that they Branded you and Sally
(inforelation11@yahoo.com)

Was it painful?

What a cheesy operation

# 3065. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-03 18:41:06 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <coqc05$ivb$1@news.service.uci.edu>
Source record: 85863

Richard Clark wrote:

> On Thu, 02 Dec 2004 14:28:26 -0800, Jim Kelley <jwkelley@nospam.edu>
> wrote:
>
>>Born and Wolf does observe that the Poynting vector is adequately
>>defined as the "density of the energy flow", "the amount of energy which
>>crosses a boundary surface per second a unit area normal to the
>>directions of E and H."
>
>
> Hi Jim,
>
> You were desirous of "value added" writing, I believe. The
> explanation and Gene's observation that this vector is not about power
> has more correlatives in radiation, of the observable kind.

It's accurate to say that power is something which itself doesn't
propagate in any fashion, at any wavelength.

> [Daggers fly here]
> Unfortunately our resident Optical (sic) wizard here, has never been
> able to express ANY answer for his Optical pronouncements in ANY
> Optical term, not even Lumens. Bringing such topics as Optics to the
> discussion and leaving them adrift demands sneers in response to such
> babbling sophistries.

When Maxwell wanted to draw such distinctions, he included a frequency
dependent term - but allowed the same units throughout.

73, Jim AC6XG

> 73's
> Richard Clark, KB7QHC

# 3066. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-03 18:43:39 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <coqc4t$ivb$2@news.service.uci.edu>
Source record: 85865

Bart Rowlett wrote:

> Jim Kelley wrote:
>
>>
>> I think the source of part of the confusion here is that some people
>> apparently interpret the 'forward power' reading on their meter to
>> mean the power into their transmission line.
>
>
> It's not.

I sincerely hope you don't think I was implying that YOU were confused
by such a thing, Bart. ;-)

73, Jim AC6XG

# 3067. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-03 18:53:30 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41b0b101$1_1@127.0.0.1>
Source record: 85867

Robert Lay W9DMK wrote:

> On Thu, 02 Dec 2004 09:47:54 -0600, Cecil Moore <w5dxp@hotmail.com>
> wrote:
>
>
>>Consider an earlier example made up of lossless lines:
>>
>>100W XMTR---50 ohm---+---one second long 291.5 ohm---50 ohm load
>>
>>The voltage reflection coefficient at the load is 0.707. The power
>>reflection at the load is 0.5, i.e. half the power is reflected.
>>
>>After steady-state has been reached, the XMTR has output 300 more
>>joules than the load has accepted. A smaller real-world experiment
>>will easily verify that it is a fact that all energy sourced that
>>has not reached the load must necessarily be confined to circulating
>>energy or losses in the transmission line.
>>
>>Question: In the above example, where are those 300 joules of energy
>>located and what is happening to them?
>>
>>We know that 300 joules is wave energy and RF waves always move
>>at the speed of light, i.e. they cannot stand still. So please
>>determine how much energy is moving and in which of only two
>>possible directions.
>
>
> Dear Cecil,
>
> Here's my guesses -
> The 300 joules of energy decays at a particular rate - i.e., in a
> certain interval of time, 63.2% of it will have been converted to and
> become dissipated as heat. During that same time interval,Ti, there
> will be an equal amount of energy introduced to replenish the amount
> lost. In other words, there will be a continuum of energy transferring
> into the transmission line to exactly make up for that lost in any
> given period of time.

Yep, the point is that the *net* energy in the transmission line will
remain at 300 joules during steady-state. The transmission line is one
second long and the source is sourcing 100 joules/sec. That means that
200 joules of "extra" energy is being stored in the transmission line.
The forward power is 200 joules/sec, 100 joules/sec higher than the
source power. The reflected power is 100 joules/sec. There is exactly

where the 200 joules of energy are stored - half in the forward wave
and half in the reflected wave whose superposition results in the
standing wave.

> Eventually, someone will disconnect the source generator at time T2.
> However, the load will continue to receive energy for a length of
> time, Ti, at which point roughly 63.2% of 300 joules of energy will
> have been dissipated in the load. If we wait long enough, 99.9% of the
> 300 joules will have been dissipated, but it will take forever for the
> last little bit to disappear.
>
> It kind of makes you think in terms of "life everlasting", doesn't it?

It probably gets close enough to zero for government work.

Did you see my question on another posting? If one hooks up a 1/4WL
stub to a signal generator, what is the dB loss in the stub? It might
have something to do with your original posting.
--
73, Cecil http://www.qsl.net/w5dxp

# 3068. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-03 19:00:14 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <coqd3t$4nl$1@sparta.btinternet.com>
Source record: 85862

Instead of messing about calculating the additional loss due to SWR and then adding it to the matched loss, I've just had a wonderful idea.

Why not calculate the actual line loss directly and solve all your problems at one fell swoop.
---
Reg.

# 3069. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-03 19:13:11 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <nee1r0d9e7f6ovbe0q6vf197vmu88cr5k3@4ax.com>
Source record: 85864

On Fri, 3 Dec 2004 19:00:14 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

Glass half empty theory:
>Instead of messing about calculating the additional loss due to SWR and then
>adding it to the matched loss, I've just had a wonderful idea.
Glass half full theory:
>Why not calculate the actual line loss directly and solve all your problems
>at one fell swoop.

# 3070. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-03 19:19:34 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41b0b71a$1_5@127.0.0.1>
Source record: 85866

Jim Kelley wrote:
> It's accurate to say that power is something which itself doesn't
> propagate in any fashion, at any wavelength.

I know that's the physicists view, but some engineering views
are slightly different because of a differing definition of
"power". Let's say we have a one second EM pulse containing one
joule of energy traveling along a transmission line with three
joules/sec measuring points. For one second periods in succession,
we will measure one watt at the measuring points. In each case,
the one watt is the same one watt, displaced in time, being
transferred to the load. That one watt appears at the first
measuring point, then at the second measuring point, then at
the third measuring point, and finally heats up the load. It
certainly appears to be associated with the pulse moving from
the source to the load.

That's the way a lot of engineers deal with power, including
all the power company engineers that I know, and that's the way
the IEEE Dictionary deals with power.

Your "tree falling in the forest making no sound" concept
may not be the best approach for the real world.
--
73, Cecil http://www.qsl.net/w5dxp

# 3071. Re: For Sandra Smith about InfoRelation.com

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-03 19:50:59 UTC
From: dplatt@radagast.org
Message-ID: <10r1gt3lnnus79@corp.supernews.com>
Source record: 85869

In article <5a99ce01.0412030827.3b4b639b@posting.google.com>,
inforelationX <inforelationX@yahoo.com> wrote:
>Hallo,
>
>I have visited InfoRelation.com and I would like to thank you for drawing
>my attention to this service ;-). The idea of connecting demand
>and supply for info, knowledge etc is great! Thanks to this I was able
>to find an expert in the field of my interest and hobby.
>As regards your advertisement I think that perhaps you offer too much
>money to the members of the projetc team ;-).
>
>Best regards,
>Donald Martin

Y'know, I have to say that you alleged InfoRelation boosters are
certainly the lamest and most pathetically unconvincing shills (or
"shill", if there's actually more than one of you) that I've seen on
USENET in a long, long time.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

# 3072. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-03 19:52:36 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41b0c201$1_4@127.0.0.1>
Source record: 85868

Reg Edwards wrote:
> Instead of messing about calculating the additional loss due to SWR and then
> adding it to the matched loss, I've just had a wonderful idea.
>
> Why not calculate the actual line loss directly and solve all your problems
> at one fell swoop.

What is the formula for the total dB loss?
--
73, Cecil http://www.qsl.net/w5dxp

## 3073. Low Power Communication Book

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-03 20:17:32 UTC
From: Simon Smith <s.Smith@btinternet.com>
Message-ID: <coqhkr$bdi$1@sparta.btinternet.com>
Source record: 85870

Does anyone have a copy of "Low Power Communication" by Richard Arland -
that is for sale ?
I live in Cornwall UK and will pay a reasonable amount plus postage.

Thanks
John

# 3074. Re: Low Power Communication Book

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-03 20:55:45 UTC
From: Bob Nielsen <nielsen@removethis.oz.net>
Message-ID: <slrncr1kmf.4tc.nielsen@n7xy.net>
Source record: 85871

On Fri, 3 Dec 2004 20:17:32 +0000 (UTC), Simon Smith wrote:
> Does anyone have a copy of "Low Power Communication" by Richard Arland -
> that is for sale ?
> I live in Cornwall UK and will pay a reasonable amount plus postage.
>
> Thanks
> John
>
>

--
Bob Nielsen, N7XY n7xy (at) n7xy.net
Bainbridge Island, WA http://www.n7xy.net

# 3075. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-03 20:58:16 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <lr4sd.86610$7i4.8273@bgtnsc05-news.ops.worldnet.att.net>
Source record: 85772

Cecil,

I am glad to see you have come around to the correct view that the "extra" energy is stored in a standing wave.

Now if only we could convince you that mathematically, physically, and in "reality" there is not the slightest bit of difference between individual wave components and their superposition result then there would be real progress.

Oh, by the way, is there some reason you highlight *net* energy? Is there any other kind? Energy is a scalar, so numerically it can be only positive or negative, with no phase angle or other vector properties. Unless part of the energy in your transmission line is negative the net energy would be the same as the gross energy. (Not including sales tax and shipping charges.)

I am well acquainted with the concept of negative energy when describing atomic structure, for example, but I have not heard of negative energy in transmission lines. Can you explain the distinction you appear to make?

73,
Gene
W4SZ

Cecil Moore wrote:

>
> Yep, the point is that the *net* energy in the transmission line will
> remain at 300 joules during steady-state. The transmission line is one
> second long and the source is sourcing 100 joules/sec. That means that
> 200 joules of "extra" energy is being stored in the transmission line.
> The forward power is 200 joules/sec, 100 joules/sec higher than the
> source power. The reflected power is 100 joules/sec. There is exactly
> where the 200 joules of energy are stored - half in the forward wave
> and half in the reflected wave whose superposition results in the
> standing wave.

# 3076. Re: Is this jack wired correctly?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-03 21:57:24 UTC
From: drwxr-xr-x <bit-bucket@config.com>
Message-ID: <slrncr1oa4.2bqt.bit-bucket@shell.config.com>
Source record: 85773

On Thu, 02 Dec 2004 11:49:26 -0500, Ken hath writ:
> On 2 Dec 2004 16:22:01 GMT, drwxr-xr-x <bit-bucket@config.com> wrote:
>>Nice antenna topic!
>
> You do have a point, but why waste the bandwith to respond -- if you
> don't have a helpful suggestion. It is at least a radio question.

And, this ng does _not_ address radios.

> Your comment and the general lack of response did make me think to
> post it to sci.electronics.basics.

Yes-sir-ee, Bob. When ever I have an *equipment* question, I would
never think to post it in a ng covering *equipment* (like
rec.radio.amateur._equipment_), where all the participants are focused
on discussing *equipment*. No, my brilliant choice would be to
post my *equipment* question in ... let's see .. an *ANTENNA* ng.

# 3077. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-03 22:09:36 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <coqo83$rnc$1@news.service.uci.edu>
Source record: 85775

Jim Kelley wrote:

> It's accurate to say that power is something which itself doesn't
> propagate in any fashion, at any wavelength.

Will someone please try to explain to Cecil that engineering is an
application of fundamental physical properties, and that the disciplines
of physics and engineering are not at odds with one another?

thanks,

AC6XG

# 3078. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-03 22:13:44 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41b0e316$1_5@127.0.0.1>
Source record: 85774

Gene Fuller wrote:
> Cecil,
>
> I am glad to see you have come around to the correct view that the
> "extra" energy is stored in a standing wave.

Never have I ever budged from the view that the "extra" energy
is stored in the standing wave components, i.e. in the forward
wave and the reflected wave. What I object to is your merging
of the forward wave and reflected wave as if they were some sort
of homoginized energy. You can prove your beliefs by providing
an example of a standing wave not composed of the superposition
of a forward wave and a reflected wave. I have offered that challenge
before and nobody has stepped up to the plate. Perhaps, you will
be the first. I await with abated breath.

> Now if only we could convince you that mathematically, physically, and
> in "reality" there is not the slightest bit of difference between
> individual wave components and their superposition result then there
> would be real progress.

What you are arguing is that there is no difference between a husband
and a wife. They are just two components of a family who merge into
a single entity so either or both may be male or female. Sorry, Gene,
that's not my view of the world. IMHO, it is the *components* that are
important. IMO, you liberals are trying to destroy science and society
all at the same time.

> Oh, by the way, is there some reason you highlight *net* energy? Is
> there any other kind?

Of course, there is another kind of energy besides net energy. Is there
any difference between a wife and a husband? They are both parents, so
you liberals would argue that there is no difference between them. I
simply don't agree with you.

> I am well acquainted with the concept of negative energy when describing
> atomic structure, for example, but I have not heard of negative energy
> in transmission lines. Can you explain the distinction you appear to make?

It's a convention, Gene. I'm surprised you have never heard of it. ExH
traveling in one direction is positive. ExH traveling in the opposite
direction is negative. The Z0 of a transmission line forces the E-field
to H-field ratio to be Z0, i.e. forces the forward voltage to forward
current ratio to be Z0 - and the same for reflected current. One of my
references shows a Poynting Vector for the forward power and a separate

Poynting Vector for the reflected power, i.e. husbands and wives are not interchangable!
--
73, Cecil http://www.qsl.net/w5dxp

# 3079. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-03 22:39:42 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41b0e92d_3@127.0.0.1>
Source record: 85776

Jim Kelley wrote:
> Will someone please try to explain to Cecil that engineering is an
> application of fundamental physical properties, and that the disciplines
> of physics and engineering are not at odds with one another?

On the contrary, many of the pure-physics-oriented posters to
this newsgroup have alleged that the IEEE Definitions are Bull$hit
and are to be ignored. Check Google if you don't believe it.

The IEEE Definitions are what engineers abide by. Of course,
the disciplines of physics and engineering are certainly at
odds with one another. For instance, engineers have an altogether
different view of what "work" is, compared to the physicists.
Physicists say no work is done if the starting line and the finish
line are the same for a marathon. Engineers will say: "Then why am
I so friggin' tired?"

The POWER engineers at a POWER generating station operated by
a POWER company simply don't buy into your pure physics BS.
They assume that POWER (joules/sec) leaving a generating station
will, after subtracting losses, make money for the company.
--
73, Cecil http://www.qsl.net/w5dxp

# 3080. Re: Oddity of ground mounted antenna's.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-03 22:54:13 UTC
From: "M. J. Powell" <mike@DeLeTe.pickmere.demon.co.uk>
Message-ID: <DCB7pHHV6OsBFw+E@pickmere.demon.co.uk>
Source record: 85811

In message <9mjuq0lp565jds1rf1jvmmn781el6q3upl@4ax.com>, Richard Clark
<kb7qhc@comcast.net> writes
>On 02 Dec 2004 11:51:12 EST, raiar@bbs.galilei.com.nospam (Gary V.
>Deutschmann, Sr.) wrote:
>>What Gives?
>
>Hi Gary,
>
>Do they have the faith to build their walls that way too? Look at the
>horizontals. Do they ridge run, or do they follow the down hill slope
>too?
>
>The better question is: How much better is theirs than their
>neighbor's vertical (as opposed to their perpendicular)?
>
>The best question is: How do they know?
>
>Kinda reminds me of the Katherine Hepburn movie "Bringing Up Baby"
>where she breaks one heel of her high heels and starts loping along:
>"I feel like I was born on the side of a hill."

Did you know that the sheep in Wales have shorter legs on one side than
the other? To allow them to graze more easily on the hillsides.

Mike

# 3081. Re: What causes this?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-03 22:59:36 UTC
From: chuck <chuck@nospam.net>
Message-ID: <sd6sd.2649$714.2209@newsread2.news.atl.earthlink.net>
Source record: 85777

Thanks for the information and explanation, Roy.

I do agree that the error introduced by using an SWR minimum as a proxy for zero reactance would not alone account for Ken's results. I also agree that resonance is important here only insofar as it is a definitional element in the nnn/f = L formula. I understand the formula is an approximation. At issue was whether the approximation held constant over a frequency excursion of approximately 5%, not an unreasonable expectation. Ken offered measurements purportedly showing that the approximation did not hold over that range. I will try to show that the uncertainty in the reported measurements does not provide confidence in the conclusion that the "constant" has changed. Whether the "constant" actually changed, and if so why, does not concern me here.

Ken initially reported a change to the "constant" (i.e., 234) of 2.32 in going from 9.5665 to 10.1955 MHz by trimming the length of a dipole. He based this on his measurements of SWR used to determine resonant frequency and on his measurements of wire length.

What is the required precision in SWR measurement needed to determine resonant frequency?

An error in measuring the resonant frequency that would produce a "constant" error of 2.32, is roughly 0.097 MHz. For a 30 meter half-wave dipole, the feed-point SWR ranges from 1.35 at 9.97 MHz to 1.35 at 10.02 MHz, with 1.34 being the minimum at 10.0 MHz (from Reg Edwards' swr_freq.exe program). This SWR range corresponds to a frequency difference of 0.06 MHz. More directly, an SWR measurement error of 0.01 at the antenna could produce an error in computed resonant frequency of 0.06 MHz. Measuring at the end of a transmission line is not likely to improve this relationship.

So how likely is it that SWRs were actually read with precisions on the order of 0.01, when the measurements were taken hours or days apart? I can't do that on my Bird. I think only a digital SWR meter can provide that kind of precision. On a calm day. With no inherent lsd jitter. And would it be repeatable after hours or days between measurements? Try it on your antennas. In any case, to achieve the 500 Hz precision reported would require something like five significant digits of SWR measurement. Maybe in a lab with a cutting-edge network analyzer. The issue is not accuracy, of course, but whether SWR measurements of the required precision are feasible. Please, no lectures, folks, on how unimportant such SWR measurements are in normal practice. This is a very unusual application of SWR measurement.

What is the effect of errors in length measurement on calculated frequency using the formula?

For the length measurement, Ken reports a precision of 0.001 foot. That is 0.012 inches, less than 1/64 inch. I don't believe this kind of precision was achieved either. An inch in a 24 foot length of wire is actually pretty good, considering the difficulty in holding it taut without stretching it, etc. But a one inch difference will produce an equivalent frequency error of 0.03 MHz (by the formula).

Simply adding the 0.06 Mhz and 0.03 MHz errors gives a total uncertainty of 0.09 MHz, an amount roughly equal to that required to generate an error of 2.32 in calculating the "constant". I know, I know. These are not rms errors. But they're what we have.

In other words, no cigar for for showing that the "constant" changes by 2.32 when the frequency changes by five percent.

Perhaps someone can provide a more sophisticated analysis of the measurement uncertainty involved. Perhaps with a better analysis, we will find that we can all go out and measure SWR to within 0.01 so we can calculate resonant frequency to within 500 Hz. Yeah, I know all that precision is imaginary, thanks to umpteen digit calculators.

And sure, changing the height of the antenna ends could also explain a change in the "constant". At least the change would be in the reported direction.

So there it is! I looked at the problem and tried to understand where the data came from and how they were measured and how much confidence I should give them. Meanwhile, I missed the whole point of the exercise, which seemed to be hypothetical: if one were to do such and such and found that the "constant" changed, what might have caused it. That's what's great about this group. The rest of you pretty much thought about the question and went to what is probably the correct answer. Do the data Ken reported really support that answer? Who knows.

Gotta love this stuff.

73 to all and thanks for your patience on this tediously long post.

Chuck
NT3G

# 3082. HF ANTENNA TO SALE - SOMMER ANTENNA XP707

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-03 23:05:26 UTC
From: Jos&#65533; Lopes <ct1cjj@mail.telepac.pt>
Message-ID: <41b0f136$0$32398$a729d347@news.telepac.pt>
Source record: 85779

I am interested to sale my hf antenna above mentioned that is in very good conditions.

Reason: need to renew and create a new set up of antennas.

Antenna: Sommer (DJ2UT Beam)
Model: XP 707
Bands: 10, 12, 15, 17, 20, 30 and 40 meters
Balun: The balun furnished with the Sommer antennas is a low-loss air core type using RG142 (BU) Teflon cable. The balun will handle 2.9 kW continuous output at 30 MHz with a loss of only 0.05 dB.

This antenna it still on my tower and working very well.

For price please send one email to:
fartolopes@mail.telepac.pt

The transports costs will be at the resposability of the buyer.

If you are interestes we can sed some actual pictures, and for all the informations
concerning gain and front/back, please go to the oficial site:
http://www.sommerantennas.com/beaminfo.html

Best 73, Lopes - CT1CJJ

# 3083. Re: What causes this?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-03 23:28:30 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41b0f49a_3@127.0.0.1>
Source record: 85778

chuck wrote:
> I do agree that the error introduced by using an SWR minimum as a proxy
> for zero reactance would not alone account for Ken's results.

I have only just now read this thread so I am ignorant of anything
that has been posted before. I just want to add that, using my MFJ-
259B, the minimum SWR is not usually at the same frequency as the
purely resistive reading. Draw your own conclusions from that
measurement.
--
73, Cecil http://www.qsl.net/w5dxp

# 3084. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-03 23:48:45 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <jgu1r0ddv2s2mklq6rrufi7dhgc9bke33l@4ax.com>
Source record: 85780

On Fri, 03 Dec 2004 16:13:44 -0600, Cecil Moore <w5dxp@hotmail.com>
wrote:
>ExH traveling in one direction is positive.
Radiation
>ExH traveling in the opposite direction is negative.
Rearadiation

You got transmitters in Texas that suck?

# 3085. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-03 23:57:32 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41b0fb68$1_3@127.0.0.1>
Source record: 85782

Richard Clark wrote:

> Cecil Moore <w5dxp@hotmail.com> wrote:
>>ExH traveling in one direction is positive.
>
> Radiation
>
>>ExH traveling in the opposite direction is negative.
>
> Rearadiation
>
> You got transmitters in Texas that suck?

Suggest that you take time to understand the difference between an unterminated Rhombic and a terminated Rhombic and get back to us.

Hint: The forward wave radiates in the forward direction. The reflected wave radiates in the reverse direction. The termination eliminates the reflected wave thus eliminating the reverse radiation. I'm surprised that you don't know that.
--
73, Cecil http://www.qsl.net/w5dxp

# 3086. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-03 23:59:05 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <iou1r0d5hoiqf50emt3d8lofg0hrcntl43@4ax.com>
Source record: 85781

On Fri, 03 Dec 2004 14:09:36 -0800, Jim Kelley <jwkelley@nospam.edu>
wrote:

>Jim Kelley wrote:
>
>> It's accurate to say that power is something which itself doesn't
>> propagate in any fashion, at any wavelength.
>
>Will someone please try to explain to Cecil that engineering is an
>application of fundamental physical properties, and that the disciplines
>of physics and engineering are not at odds with one another?
>
>thanks,
>
>AC6XG

Hi Jim,

With absolutely no illusions that he can answer the following:

79 Lumens is emitted by a light bulb of 80% efficiency;

At 0.1 meters distance, it impinges upon a 1 square meter lossy pane
of glass of ND = 0.125 and 50% is reflected;

At a total distance of 10M boresight beyond that pane, how many Watts
centered at 555nM ï¿½15nM are found within one square centimeter?

If that is too hard, how many candela total intensity did we begin
with?

73's
Richard Clark, KB7QHC

# 3087. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-04 00:00:59 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41b0fc37$1_5@127.0.0.1>
Source record: 85783

Richard Clark wrote:
> If that is too hard, how many candela total intensity did we begin
> with?

You first, Richard. What is the difference between a duck?

# 3088. Re: What causes this?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-04 00:06:38 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10r1vsghn544c4a@corp.supernews.com>
Source record: 85784

Sorry to hack just a very short piece out of context, but it's pretty fundamental to the whole issue. I'll try to comment on the rest later, as time permits. . .

chuck wrote:

>. . .
>
> What is the required precision in SWR measurement needed to determine
> resonant frequency?
>
>. . .

There is no amount of precision which will make that possible.

The resonant frequency cannot be determined by measurement of SWR alone (or more accurately, by an SWR meter reading), except in one very special case: If the resistance at resonance is equal to the SWR meter's characteristic impedance, then a reading of exactly 1:1 indicates resonance at the SWR meter terminals. This is seldom the case for an antenna or antenna system. In other words, if the SWR meter reads 1:1, then the load it's connected to is 50 + j0, which is resonant (assuming a 50 ohm SWR meter). There's no way to determine resonance with any other reading or for any other resistance -- if the meter dips to, say 1.2:1 at some frequency, you can't know if resonance has occured at that frequency unless you have some additional information.

Again, in practice, the point of minimum SWR meter reading is often, but not always, very close to the point of resonance (at the SWR meter). And again, there's seldom any need to determine resonance.

Roy Lewallen, W7EL

# 3089. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-04 00:09:37 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <coqvag$3hc$1@news.service.uci.edu>
Source record: 85788

Richard Clark wrote:
> On Fri, 03 Dec 2004 16:13:44 -0600, Cecil Moore <w5dxp@hotmail.com>
> wrote:
>
>>ExH traveling in one direction is positive.
>
> Radiation
>
>>ExH traveling in the opposite direction is negative.
>
> Rearadiation
>
> You got transmitters in Texas that suck?

Maybe so. Texas certainly does seem to have its own unique set of
physical laws. ;-)

"Physicists say no work is done if the starting line and the finish
line are the same for a marathon."

:-)
No physicist I know would ever say something like that. Only a gross misapplication of Newtonian mechanics and/or thermodynamics could lead someone to such a belief. For example, such a person might think that a ball thrown up into the air has had zero work performed on it after it returns to the hand which threw it. The fact is, it requires as much work to return it to the earth as it does to throw it into the air. (There are some interesting physics demonstrations on how this doubling of work can be used to interesting advantage.) But since in mechanics there is no such thing as negative work, total work is accumulative. Potential and kinetic energies are of course restored to initial conditions, but the conversion from one to the other does not ordinarily occur without some form of external 'help'. The misunderstanding is at least consistent with some similar misunderstandings that have been expressed with regard to the physics of power and energy.

ac6xg

# 3090. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-04 00:11:24 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <8rv1r0ppleot60q779cou2dbrslcpavr9t@4ax.com>
Source record: 85785

On Fri, 03 Dec 2004 17:57:32 -0600, Cecil Moore <w5dxp@hotmail.com>
wrote:
>> You got transmitters in Texas that suck?
>Suggest that you take time to understand
That's whining liberal talk - Up or Down, is it yes boy?

# 3091. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-04 00:17:03 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <v702r0hv6taij3oegdbjje0rhe74ilk2sb@4ax.com>
Source record: 85786

On Fri, 03 Dec 2004 18:00:59 -0600, Cecil Moore <w5dxp@hotmail.com>
wrote:
>Richard Clark wrote:
>> If that is too hard, how many candela total intensity did we begin
>> with?
>You first, Richard. What is the difference between a duck?
Your question, put in optical terms, and you can't answer it, that is
the difference, duck. :-)

# 3092. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-04 00:20:15 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <jb02r0d82ldn6d7i4v2f32u9j90c420nkm@4ax.com>
Source record: 85787

On Fri, 03 Dec 2004 23:59:05 GMT, Richard Clark <kb7qhc@comcast.net>
wrote:
Same question
>With absolutely no illusions that he can answer the following:
>
>79 Lumens is emitted by a light bulb of 80% efficiency;
>
>At 0.1 meters distance, it impinges upon a 1 square meter lossy pane
>of glass of ND = 0.125 and 50% is reflected;
>
>At a total distance of 10M boresight beyond that pane, how many Watts
>centered at 555nM ï¿½15nM are found within one square centimeter?

What is the path loss, in dB? :-)

# 3093. Re: Will Accept Any Reasonable Offer

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-04 00:36:12 UTC
From: nedrog@aol.comNOSPAM
Message-ID: <20041203193612.21753.00001191@mb-m12.aol.com>
Source record: 85789

If you ae interested in any of the items - send me an email with your offer,
and if i think it is reasonable, I will sell that item to you!

73's

# 3094. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-04 00:58:28 UTC
From: Wes Stewart <n7ws_@_yahoo.com>
Message-ID: <cr22r0t340f3l7tpcudb4sn9qdok4vrj9u@4ax.com>
Source record: 85790

On Fri, 03 Dec 2004 16:13:44 -0600, Cecil Moore <w5dxp@hotmail.com>
wrote:
[snip]

|I await with abated breath.

If only it was true [g]

# 3095. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-04 01:16:57 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cor368$t5n$1@titan.btinternet.com>
Source record: 85791

"Cecil Moore" wrote
> > Reg Edwards wrote:
> > Instead of messing about calculating the additional loss due to SWR and
then
> > adding it to the matched loss, I've just had a wonderful idea.
> >
> > Why not calculate the actual line loss directly and solve all your
problems
> > at one fell swoop.
>
> What is the formula for the total dB loss?
> --
==========

I wonder why I ever bothered to introduce Chipman to this newsgroup.

Try him.

----
Reg.

# 3096. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-04 01:39:21 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <1o42r0tfmc0hq8b5ivtn4nh1uaqvma411r@4ax.com>
Source record: 85792

On Sat, 04 Dec 2004 00:20:15 GMT, Richard Clark <kb7qhc@comcast.net>
wrote:

>On Fri, 03 Dec 2004 23:59:05 GMT, Richard Clark <kb7qhc@comcast.net>
>wrote:
>Same question
>>With absolutely no illusions that he can answer the following:
>>
>>79 Lumens is emitted by a light bulb of 80% efficiency;
>>
>>At 0.1 meters distance, it impinges upon a 1 square meter lossy pane
>>of glass of ND = 0.125 and 50% is reflected;
>>
>>At a total distance of 10M boresight beyond that pane, how many Watts
>>centered at 555nM ï¿½15nM are found within one square centimeter?
>
>What is the path loss, in dB? :-)

With absolutely no prospects of a correct answer short of my own:
102dB

Think you can find how many Watts centered at 555nM ï¿½15nM are found
within one square centimeter now?

Tougher question: How many Lux? :-)

If you can't do Lux, you sure can't do Poynting math.

# 3097. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-04 01:54:33 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <cor5g1$7qm$1@news.service.uci.edu>
Source record: 85793

Richard Clark wrote:

> On Sat, 04 Dec 2004 00:20:15 GMT, Richard Clark <kb7qhc@comcast.net>
> wrote:
>
>
>>On Fri, 03 Dec 2004 23:59:05 GMT, Richard Clark <kb7qhc@comcast.net>
>>wrote:
>>Same question
>>
>>>With absolutely no illusions that he can answer the following:
>>>
>>>79 Lumens is emitted by a light bulb of 80% efficiency;
>>>
>>>At 0.1 meters distance, it impinges upon a 1 square meter lossy pane
>>>of glass of ND = 0.125 and 50% is reflected;
>>>
>>>At a total distance of 10M boresight beyond that pane, how many Watts
>>>centered at 555nM ï¿½15nM are found within one square centimeter?
>>
>>What is the path loss, in dB? :-)
>
>
> With absolutely no prospects of a correct answer short of my own:
> 102dB

> Think you can find how many Watts centered at 555nM ï¿½15nM are found
> within one square centimeter now?

I can if the light source is a sodium discharge lamp. :-) What sort of
light source are you assuming?

73 de AC6XG

# 3098. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-04 02:09:12 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <7j62r05cje78hqn6cvha9itqpff7lg9t88@4ax.com>
Source record: 85794

On Fri, 03 Dec 2004 17:54:33 -0800, Jim Kelley <jwkelley@nospam.edu>
wrote:

>I can if the light source is a sodium discharge lamp. :-) What sort of
>light source are you assuming?

Hi Jim,

I bet you can!

Edison/Mazda style tungsten filament light bulb. Available at K-Mart
or Walton's or any of a million retail outlets, even in Texas. If not
in Texas, then heat a brandin' arn to incandescence (bet he can't tell
us what temperature for 555nM tho').

Please, folks, Optics is for the professionals. Don't try this at
home! ;-)

73's
Richard Clark, KB7QHC

# 3099. Re: Radials and HF2V

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-04 02:12:54 UTC
From: Jack Painter <223bthp@cox.net>
Message-ID: <G29sd.3805$Ro.3770@lakeread02>
Source record: 85795

"Bill Turner" <noway@nohow.com> wrote
> catz <deni1@tiscali.fr> wrote:
>
> >I have moles in my land, do they eat radials?
>
> ____________________________________________________
>
> The Molus Radialus species prefers radials to any other food. Check
> with your local Forest Ranger to see if you have that kind.
> --
> Bill W6WRT

Those copper-munchin' little critters, they really have brass balls, don't
they!

Jack
Va Beach

# 3100. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-04 03:00:44 UTC
From: "aunwin@insightbb.com"
Message-ID: <wL9sd.709299$8_6.468260@attbi_s04>
Source record: 85796

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:cor368$t5n$1@titan.btinternet.com...
>
> "Cecil Moore" wrote
> > > Reg Edwards wrote:
SNIP
I wonder why I ever bothered to introduce Chipman to this newsgroup.
>
> Try him.
>
> ----
> Reg.
>

Reg,
This thread is purely a platform for snide remarks or for the pursuit of
appearing clever
to readers. It is not for technical education but instead it is a duking out
of smarmy comments
so as to produce a suedo pecking order for onlookers to assuage who has the
most accumen
with respect antenna education. It also helps in ascertaining the personal
ethics of one
compared to others. Thus the introduction of Chipman would serve no real
purpose other than to
deflect the daggers or missiles thrown between individuals. I am amazed that
Cecil is willing to
stand there whether he is right or wrong when many (not all ) contributors
have no interest in
keeping to the subject other than to provide utterances that cannot be
understood apparently
or to throw a stone and then hide.
Cecil, you just have nothing to gain by conversing with those
whose only intent is to taunt you and not to provide true closure of posting
discussion.
Respond to those who have something to offer and let the others drown in
their own saliva
when left alone.
Cheers and beers
Art

# 3101. Re: Low Power Communication Book

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-04 03:15:02 UTC
From: Bob Nielsen <nielsen@removethis.oz.net>
Message-ID: <slrncr2atj.87c.nielsen@n7xy.net>
Source record: 85797

On 03 Dec 2004 20:55:45 GMT, Bob Nielsen wrote:
> On Fri, 3 Dec 2004 20:17:32 +0000 (UTC), Simon Smith wrote:
>> Does anyone have a copy of "Low Power Communication" by Richard Arland -
>> that is for sale ?
>> I live in Cornwall UK and will pay a reasonable amount plus postage.
>>
>> Thanks
>> John
>>
>>
>
>

I don't know what happened to the essence of my reply....

The book is available from RSGB.

--
Bob Nielsen, N7XY n7xy (at) n7xy.net
Bainbridge Island, WA http://www.n7xy.net

# 3102. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-04 04:48:06 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10r2gc8r4jqae45@corp.supernews.com>
Source record: 85800

Cecil Moore wrote:

> . . .
> The IEEE Definitions are what engineers abide by. . .

If you believe that, you haven't had much contact with real, working engineers.

In my experience, the IEEE definitions are often way out of step with common usage by working engineers. Nearly none in my acquaintance look to it as an authoritative source. A useful guideline, perhaps, at most. I can easily see three causes for the deficiency:

1. The IEEE Dictionary covers an extremely wide variety of rapidly evolving specialties, including power, digital, fields, control systems, fiber optics, electronics, EMC, and on and on. It would be extremely difficult to cover all these disparate specialties accurately and in depth without a huge amount of input from working engineers in each specialty.
2. As far as I can tell, the Dictionary is put together by volunteers, which limits the time and effort which can applied to it.
3. The active membership of the IEEE largely comprises academics rather than working engineers. Academics are a poor source of information about common usage by working engineers. And, working engineers don't tend to "abide by" the dictates of academics, in my experience.

I don't have a recent copy of the IEEE Dictionary, but think and hope it's improved over the years. But I'm certain it hasn't come anywhere close to the point at which it's something "engineers" "abide by".

Roy Lewallen, W7EL

# 3103. Re: feeding vertical dipoles

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-04 04:52:41 UTC
From: k9sqg@aol.com
Message-ID: <20041203235241.21925.00001582@mb-m06.aol.com>
Source record: 85802

I believe we're comparing apples and oranges. When the coax goes through the grounded side of the "dipole", the antenna is called a sleeve vertical or some variation of that. This is quite different than a vertical dipole where the coax would be next to the grounded side. This would induce pattern distortion and likely rf on the braid of the feedline. Unfortunately I don't have a scanner but if you'd like, I can copy the pages that describe both of these antennas with radiation patterns, etc.

73s,

Evan

# 3104. Re: smallest wire gauge for dipole: full kW?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-04 06:35:19 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <DTcsd.88182$IQ.22821@bignews6.bellsouth.net>
Source record: 85801

"gibberdill" <gibberdill@bak.rr.com> wrote in message
news:CoQrd.1553$Ew6.1378@twister.socal.rr.com...
> I plan to use my 26 ga. 75 meter dipole (stealth antenna)-- now with 100
W--
> with my new amplifier, with 800-1000 W output. Is that too small a gauge?
> How much current can I expect it to take? Even if it doesn't get too hot,
> will it be significantly less efficient?
>

Ohms law is gonna put 20 amps on that wire (1000 watts / 50 ohms)
I would expect it to fail - probably at the connection points.
I think it would heat up, become brittle, and break.
If it was mine, I would want to upgrade to 16 or 14 ga. before putting a kw.
-- I've always used 100 watts or less, so this is not from experience - just
my opinion.
Hal

---
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Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.799 / Virus Database: 543 - Release Date: 11/20/2004

# 3105. Re: Radials and HF2V

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-04 06:46:55 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <v2dsd.88270$IQ.37539@bignews6.bellsouth.net>
Source record: 85799

"catz" <deni1@tiscali.fr> wrote in message
news:MPG.1c19ad98fadc4f5b98968e@news.individual.net...
> I'm planning to put up a Butternut HF2V, so... thinking about burying
> some radials.
> Questions...
> I have moles in my land, do they eat radials?
> What is the best wire to use, ie most durable for buried radials?
> Will I be better off with elevated tuned counterpoise wires?
> Any advice?

use Copper wire (as opposed to alum) - insulated or bare - your choice - I would pick solid insulated.
Someone on this group mentioned using a chain saw to make slots in the ground for radials - and it sounded like a good idea. Some used a modified edger and made it work. I suggest getting some asprin or ben-gay for the day after installation.
moles eat grubs - so don't disguise the radials as grubs and you should be ok.
If squirrels didn't eat my dipole, the mole should leave your radials alone - its the rule. :-)

---
Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.799 / Virus Database: 543 - Release Date: 11/20/2004

# 3106. Re: Oddity of ground mounted antenna's.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-04 07:05:28 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <Tjdsd.88413$IQ.23166@bignews6.bellsouth.net>
Source record: 85798

"Gary V. Deutschmann, Sr." <raiar@bbs.galilei.com.nospam> wrote in message

> Several of them have their ground mounted HF antenna's perpendicular
> to the grade of the land rather than vertical. In other words, the
> top of the antenna is roughly 90 inches off center toward the downhill
> side.

That vertical must be *downhill* from the house - else loss of sleep will
occur.
And wouldn't the uphill guy wires need to be doubled up ?

---
Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.799 / Virus Database: 543 - Release Date: 11/20/2004

# 3107. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-04 08:20:15 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <9rr2r0dqlu9474dgrdiit1b38n2tr8a857@4ax.com>
Source record: 85803

On Sat, 04 Dec 2004 01:39:21 GMT, Richard Clark <kb7qhc@comcast.net>
wrote:

>On Sat, 04 Dec 2004 00:20:15 GMT, Richard Clark <kb7qhc@comcast.net>
>wrote:
>
>>On Fri, 03 Dec 2004 23:59:05 GMT, Richard Clark <kb7qhc@comcast.net>
>>wrote:
>>Same question
>>>With absolutely no illusions that he can answer the following:
>>>
>>>79 Lumens is emitted by a light bulb of 80% efficiency;
>>>
>>>At 0.1 meters distance, it impinges upon a 1 square meter lossy pane
>>>of glass of ND = 0.125 and 50% is reflected;
>>>
>>>At a total distance of 10M boresight beyond that pane, how many Watts
>>>centered at 555nM ï¿½15nM are found within one square centimeter?
>>
>>What is the path loss, in dB? :-)
>
>With absolutely no prospects of a correct answer short of my own:
> 102dB
>
>Think you can find how many Watts centered at 555nM ï¿½15nM are found
>within one square centimeter now?
>
>Tougher question: How many Lux? :-)
>
>If you can't do Lux, you sure can't do Poynting math.

OK, can't do Poynting math either. The answer to that last is:
15.7 mLux

Now, as to Jim's flippant response as to he knew how much power in the
555nM ï¿½15nM band is found within one square centimeter. His premise
that if it was a Sodium Vapor lamp, it has only one spectral line at
590nM. That would have lead to an answer of 0W. However, this is
only for a low pressure Sodium Vapor lamp. High pressure lamps have a
very strong 555nM line. At least Jim could walk the walk.

There are a myriad number of other terms, all Optical, that have
correlatives to RF that would make an Ox stumble along this path. One
crippling question would be: How much TOTAL power was radiated? :-)

If you can't do Power, especially with all these clues, talking the walk about interference is a side show in the carnival.

# 3108. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-04 09:52:06 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <+LmxLwIGjYsBFAIM@ifwtech.co.uk>
Source record: 85805

Cecil Moore wrote:
>Of course,
>the disciplines of physics and engineering are certainly at
>odds with one another.

That is nothing but an excuse for your own sloppy thinking.

When it comes down to fundamentals, physics and engineering must always agree exactly - because they are both working with the same physical reality. That is a bedrock principle, known and shared by all competent physicists and all competent engineers.

There's a reason why they call these subjects "disciplines", you know. Reality sets hard rules that you have to follow - or else you'll get it wrong.

The only differences between physics and engineering are the acknowledged and clearly understood approximations that each side has to apply in order to follow its own particular interests. Physics is most interested in knowing things, while engineering is most interested in doing things - but neither to the exclusion of the other.

If your ideas cannot make the physics and engineering approaches agree, it means that your ideas are wrong. That is a simple and completely reliable test.

And it's strictly *your* problem.

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

# 3109. Re: Icom TS-50

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-04 09:55:01 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0412040155.563d124d@posting.google.com>
Source record: 85804

Cecil Moore <w5dxp@hotmail.com> wrote in message news:<41acd77d$1_2@127.0.0.1>...
> Reg Edwards wrote:
> > How much, if any, is digital filtering better than the old-fashioned Xtl
> > filter.
>
> What makes DSP filtering better than Xtal filters is that it is
> programmable, not hardwired. The parameters of a DSP filter are
> continuously variable although not usually implemented that way
> in most amateur radio receivers. Given the processing power
> necessary for a filter, one can theoretically have any of a
> near-infinite number of filter configurations.
>
> Reg, you could probably program a DSP audio filter that runs on
> a PC and outputs audio through the sound card like the ClearSpeech
> speaker systems. PSK-31 software packages for the PC certainly contain
> a number of DSP filters and other DSP algorithms.

I' ve got 2-3 of those programs. Probably more than that out
there...SBFFT is a DOS DSP program that works real well for a CW or
bandpass/bandstop filter. You can notch, etc , up to six signals at
once, within the stock passband width you select. It's real good for
notching heterodynes, etc...You can cut just a tiny sliver, taking out
the signal, but leave all the rest. I use that for MW sometimes. I
have another DSP program for windows that the guy that wrote MMSSTV
did...It has NR modes, which SBFFT doesn't. Chromasound is pretty
good, but payware...If I use a radio which has DSP in it, such as my
mk2g, I have dual DSP if I want it. Even dual auto-notch, etc. But the
software on the puter is much more powerful overall than the simple
DSP in the 706. All the 706 has is auto notch and NR. Neither of which
I use much at all. Only bandpass filtering is really useful to me, and
most radios don't have it. BTW, all those programs have the various
spectrum graphs, waterfalls, etc... You can see what to notch, and
what freq , etc..Kinda like PSK...
One thing though...DSP is nice and all, and the filters are brick wall
steep, but you can still have blowby problems with near strong
signals, etc...DSP is not near as "bulletproof" as a real hardware
filter. I use both. Get the best of both worlds...As an example...My
830 is pretty good as it is. Variable bandwidth, CW filters, etc...Add
the puter DSP, and it's killer. But in reality, the 830 is good enough
as it is...I have DSP but I don't use it all that much. It's not that
practical to use. For example, my 706 doesn't have a CW filter yet,
and the DSP would be real handy. But the sidetone delay on *sending*
makes it nearly useless. Doesn't do any good to have a 200 cycle
filter if I get tripped up sending due to the delay...:/

I'd have to rig up a separate real time sidetone. And that then means I would prefer to mute the puter audio when sending...All that mess is too much hassle...I just get on my old 830 with it's rock solid old fashioned filters, and be done with it...And the receiver is usually cleaner to boot, as no artifacts or blowby..MK

# 3110. Re: What causes this?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-04 11:03:12 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <KqrsT7LwlZsBFAcj@ifwtech.co.uk>
Source record: 85806

Cecil Moore wrote:
>chuck wrote:
>> I do agree that the error introduced by using an SWR minimum as a proxy
>> for zero reactance would not alone account for Ken's results.
>
>I have only just now read this thread so I am ignorant of anything
>that has been posted before. I just want to add that, using my MFJ-
>259B, the minimum SWR is not usually at the same frequency as the
>purely resistive reading. Draw your own conclusions from that
>measurement.

The question arises because a single measured value of SWR can be created by many different combinations of R and X.

This is one of those times when the Smith chart can help to see what's happening.

The Smith chart is simply a map, that happens to plot R and X instead of latitude and longitude. At school, you learned how to understand the different ways to project the globe onto a flat map. Each map projection gets one thing right, but is distorting in other respects. One projection gives correct distances, another gives correct areas, the great circle projection gives correct bearings... and then there's that orange-peel projection that only seems to be optimized for weirdness.

Well, the Smith chart is just another one of those map projections. Its useful property is that a circle, centred on the middle of the chart, connects all possible combinations of R and X that give the same value of SWR (for example, the "SWR=2" circle). The larger the diameter of the circle, the higher is the SWR, going out to infinity at the edge.

The centre of the Smith chart is the unique point where SWR=1: for a common "50 ohm" chart, that means R is exactly 50 ohms and X is exactly zero.

Now if you measure the complex (R-X) impedance of an antenna across a very wide range of frequencies, and plot it on the Smith chart, you will typically find that it goes in a series of orbits around the chart.

What you're hoping for is that the impedance plot of your antenna will pass right through the centre at your chosen operating frequency... or at least, that it will make a very close fly-by.

The frequency of the "SWR minimum" is the point of closest approach to the centre. The "SWR bandwidth" of the antenna is the frequency range across which the plot stays inside the SWR=2 circle (or whatever other SWR limit you choose to set).

The two halves of the Smith chart are symmetrical about the X=0 axis.
The "resonant" frequency at which the R-X measurement becomes purely
resistive is where the plot crosses through that axis.

But the point of closest approach is almost always *not* at the X=0
crossover. Except by coincidence, these two things always occur at
slightly different frequencies.

If I could draw a picture here, that would make it very clear. I hope
the word-picture has been clear enough.

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

# 3111. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-04 12:46:50 UTC
From: "Cecil A. Moore" <w5dxp@hotmail.com>
Message-ID: <41b1afb8_5@127.0.0.1>
Source record: 85807

Roy Lewallen wrote:
> Cecil Moore wrote:
>> The IEEE Definitions are what engineers abide by. . .
>
> If you believe that, you haven't had much contact with real, working
> engineers.

What dictionary do "real, working engineers" use? A language
without a dictionary is a disaster waiting to happen.
--
73, Cecil http://www.qsl.net/w5dxp

## 3112. Satellite Radio Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-04 13:25:43 UTC
From: MikeP <none@none.com>
Message-ID: <rVisd.1175$IB6.1091@trndny06>
Source record: 85808

Hello,
Id like to make my own Satellite Radio Antenna(xm) but dont want to learn about antennas from the ground up.I am a machinist, so fabrication would be pretty easy.Are there any plans.Some basic info may even get me started.
Thanks
Mike

# 3113. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-04 13:27:49 UTC
From: "Cecil A. Moore" <w5dxp@hotmail.com>
Message-ID: <41b1b953_4@127.0.0.1>
Source record: 85809

Ian White, G3SEK wrote:
> If your ideas cannot make the physics and engineering approaches agree,
> it means that your ideas are wrong.

If you believe physicists and engineers agree on everything, you are
living in never-never land. It's difficult to find two physicists
who agree on everything - or two engineers. Witness the arguments
on this newsgroup.

Ian, there are 13 definitions of "efficiency" in the IEEE Dictionary,
each associated with a different engineering discipline. And that's
not counting the definitions of "efficiency" that exist in the
world of pure physics. Anyone who thinks a word has one and only
one definition that everyone agrees upon and encompasses all subjects
and all fields is clearly out of touch with reality.

For instance, I point to the definition of "power" in the IEEE
dictionary. Some posters on this newsgroup disagree with that definition
and that's from people who had the same textbook as I did in college.
Since that's the case, then of course, some of the ideas of engineering
and physics will disagree. "Power" for a power engineer working at a
power generating plant measuring megajoules/sec in a transmission line
simply does not have the same definition as "power" for a physics professor.
--
73, Cecil http://www.qsl.net/w5dxp

# 3114. Re: What causes this?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-04 13:37:29 UTC
From: "Cecil A. Moore" <w5dxp@hotmail.com>
Message-ID: <41b1bb97$1_5@127.0.0.1>
Source record: 85810

Ian White, G3SEK wrote:
> Now if you measure the complex (R-X) impedance of an antenna across a
> very wide range of frequencies, and plot it on the Smith chart, you will
> typically find that it goes in a series of orbits around the chart.

For resonance not to occur at minimum SWR, the orbit must not be a
circle centered on the pure resistance line. The 'R' in the R+jX
impedance looking into my transmission line changes much faster
around resonance than does any SWR circle.
--
73, Cecil http://www.qsl.net/w5dxp

## 3115. Re: smallest wire gauge for dipole: full kW?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-04 14:53:36 UTC
From: Bart Rowlett <bart@wb6hqk.ampr.org>
Message-ID: <41B1CF70.6020202@wb6hqk.ampr.org>
Source record: 85812

Hal Rosser wrote:
> "gibberdill" <gibberdill@bak.rr.com> wrote in message
> news:CoQrd.1553$Ew6.1378@twister.socal.rr.com...
>
>>I plan to use my 26 ga. 75 meter dipole (stealth antenna)-- now with 100
>
> W--
>
>>with my new amplifier, with 800-1000 W output. Is that too small a gauge?
>>How much current can I expect it to take? Even if it doesn't get too hot,
>>will it be significantly less efficient?
>>
>
>
> Ohms law is gonna put 20 amps on that wire (1000 watts / 50 ohms)

P = I*I * R
I = sqrt(P / R) = 4.47 A

bart

# 3116. Re: 32 ft end tuned vertical or??

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-04 15:07:48 UTC
From: denton <denton@oregontrail.net>
Message-ID: <10r3klsigpre73d@corp.supernews.com>
Source record: 85813

an update on this little project...
I have tried various lengths from 32 to 42 feet and have settled on 32 feet.
I currently have 30 radials from 20 feet to over 30 feet. I am undecided to add more but can do so before putting in a new lawn next spring.
I am currently feeding it at the base with a 4 to 1 voltage balun and 30 feet of Belden RG8-U 50 ohm coax to a little ldg auto tuner in the shack.
SWR at the base of the antenna is 6 to 1 on 40 meters, 3.5 to 1 on 30 meters and drops from then on to 1.2 to one on 10 meters.
Even with the high swr on 40 meters (I plan on bypassing the balun for that band) an online coax calculator for my particular feedline indicates I am loosing at most 8-10 watts in the feedline. I have no way of calculating or estimating the losses in the little auto tuner or the balun and can only guess at the ground losses.
I am not too worried about 10 meter operation.
The antenna apparently works...if the band is only partly open I can work just about anyone I can read on psk on any band 40 thru 15 meters. Comparing it with my 80 meter twin led fed doublet, the vertical is doing its job rather nicely.
One little suprise...in the shack, without the ant tuner in line, the swr on 80 meters is quite low...below 3 to 1 on most of the band...wonder what causes that?
I have also given thoughts to raising the base of the antenna to 12 feet, and run 4 radials for each band, and am wondering if I would see much difference. I suspect the swr would be a bit different, but on the air??

"denton" <denton@oregontrail.net> wrote in message
news:10oi5v1a3knkh0a@corp.supernews.com...
> Hi all...
> I have a 32 ft aluminum mast that I want to feed at the bottom with an
> extensive radial system laying on or just below the ground.
> I plan on homebrewing a matching network at the base, with tuning stubbs
> on the vertical radiator and plan to use the antenna on 30 thru 10 meters.
> Before I get too into the project, I am wondering if I would have a better
> antenna if I simply purchase a Gap Titan, butternut or something of their
> irk. Thanks in advance.
>

# 3117. Re: You have been warned !

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-04 15:12:35 UTC
From: "H. Adam Stevens, NQ5H" <NQ5H@ARRL.net>
Message-ID: <10r3kv1goojlu35@corp.supernews.com>
Source record: 85814

"Brian Kelly" <kelly@dvol.com> wrote in message
news:d22b54c3.0412030445.60211c86@posting.google.com...
> Roy Lewallen <w7el@eznec.com> wrote in message
> news:<10qv4bcigm45e5b@corp.supernews.com>...
>> Reg Edwards wrote:
>> > . . .
>> > But the motion of the two coils, one inside the other, built into a
>> > working
>> > transmitter would fascinate visitors to the shack. An attraction quite
>> > capabable of overcoming the disadvantage of a ridiculous low Q at 30
>> > MHz.
>> > It's even better than watching one set of 500pF capacitor plates slowly
>> > disappearing inside the other.
>> > ----
>>
>> Here in the U.S., where conspicuous excess is widely considered a virtue
>> (big guns, big trucks, big bellies, big antennas, big power. . .), you'd
>> surely have to include a fluorescent tube suspended in the middle. It's
>> especially important now that 866A's have become passe.
>>
>> (I have fond memories from my childhood of a neighbor ham, ...BFB --
>> 'Barrel Full of Beer', who ran a kW -- at least -- of AM into a lazy H
>> antenna which had a 4 foot fluorescent tube at each of the 4 wire ends.
>> It impressed me as being really cool -- but then I was 11 at the time.)
>
> If it wasn't for the fluorescent tube I taped to the wire going out
> the back window of my bedroom to a neighbor's tree yonder I never
> would have found the hot spot tap on my 80M ARC-5 tank coil. 1953 age
> 16? Precocious I was not and I still ain't. I forget. But then I
> discovered that tuning up by maxing the output of Mrs. Chandler's, the
> next door neighbor the pore thing, bathroom lamp was a more better
> route to go than the fluorescent tube when it got down to flooding the
> neighborhood with RF then tuning around with the S-40B for a contact.
>
> We're ALL nuts.
>
>>
>> Roy Lewallen, W7EL
>
> w3rv

Put a fluorescent lamp on your mobile antenna.
What fun!
And yes, we must all be nuts.

;^)
73, H.

# 3118. Re: Oddity of ground mounted antenna's.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-04 15:20:18 UTC
From: chuck <chuck@nospam.net>
Message-ID: <SAksd.4890$Va5.462@newsread3.news.atl.earthlink.net>
Source record: 85815

Hello, Ian.

Yes, I was a bit hasty in citing Moxon.

But thinking a little more about this I wonder. Intuitively, and looking at Moxon's sketch, it would seem that the effect would be simply to rotate the vertical pattern by the amount of the slope. Aiming the pattern "down the slope" rather than "toward the horizon" does not seem to be a necessarily worse situation as Moxon suggests. Wouldn't that actually put more energy out toward the horizon?

Tilting a VHF ground plane antenna toward the horizon would be different because the vertical pattern at zero degrees is not attenuated by ground losses.

Chuck

Ian White, G3SEK wrote:
> chuck wrote:
>
>>
>> Don't know from personal experience, but Les Moxon, author of HF
>> Antennas for all Locations, seems to believe it creates an advantage.
>> You might want to read his thoughts on that.
>>
>
> The advantages of which Moxon wrote are for *horizontal* polarization
> only. If the antenna height above ground is correct, the ground
> reflection can reinforce low-angle radiation in the downslope direction.
>
> But Moxon also shows specifically that there are *no* such advantages
> for vertical polarization. The ground-reflected ray is lost at a high
> angle.
>
>

# 3119. Re: Oddity of ground mounted antenna's.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-04 16:21:57 UTC
From: Irv Finkleman <finkirv@shaw.ca>
Message-ID: <41B1E463.1BFEA37B@shaw.ca>
Source record: 85816

Hal Rosser wrote:
>
> "Gary V. Deutschmann, Sr." <raiar@bbs.galilei.com.nospam> wrote in message
>
> > Several of them have their ground mounted HF antenna's perpendicular
> > to the grade..

> That vertical must be *downhill* from the house - else loss of sleep will
> occur.
> And wouldn't the uphill guy wires need to be doubled up ?
>
Does the term 'uphill' guys imply that there are 'downhill' guys? Would
they be required? Be careful not to confuse the term 'downhill guys' with
old hams.

Irv VE6BP
---
Diagnosed Type II Diabetes March 5 2001
Beating it with diet and exercise!
297/215/210 (to be revised lower)
58"/43"(!)/44" (already lower too!)
---
Visit my HomePage at http://members.shaw.ca/finkirv/index.html
Visit my Baby Sofia website at http://members.shaw.ca/finkirv4/index.htm
Visit my OLDTIMERS website at http://members.shaw.ca/finkirv5/index.htm
---
Irv Finkleman,
Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
Calgary, Alberta, Canada

# 3120. Re: You have been warned !

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-04 16:23:24 UTC
From: Irv Finkleman <finkirv@shaw.ca>
Message-ID: <41B1E4BA.A7150EAC@shaw.ca>
Source record: 85817

"H. Adam Stevens, NQ5H" wrote:
>
> "Brian Kelly" <kelly@dvol.com> wrote in message
> news:d22b54c3.0412030445.60211c86@posting.google.com...
> > Roy Lewallen <w7el@eznec.com> wrote in message
> > news:<10qv4bcigm45e5b@corp.supernews.com>...
> >> Reg Edwards wrote:
> >> > . . .
> >> > But the motion of the two coils, one inside the other, built into a
> >> > working
> >> > transmitter would fascinate visitors to the shack. An attraction quite
> >> > capabable of overcoming the disadvantage of a ridiculous low Q at 30
> >> > MHz.
> >> > It's even better than watching one set of 500pF capacitor plates slowly
> >> > disappearing inside the other.
> >> > ----
> >>
> >> Here in the U.S., where conspicuous excess is widely considered a virtue
> >> (big guns, big trucks, big bellies, big antennas, big power. . .), you'd
> >> surely have to include a fluorescent tube suspended in the middle. It's
> >> especially important now that 866A's have become passe.
> >>
> >> (I have fond memories from my childhood of a neighbor ham, ...BFB --
> >> 'Barrel Full of Beer', who ran a kW -- at least -- of AM into a lazy H
> >> antenna which had a 4 foot fluorescent tube at each of the 4 wire ends.
> >> It impressed me as being really cool -- but then I was 11 at the time.)
> >
> > If it wasn't for the fluorescent tube I taped to the wire going out
> > the back window of my bedroom to a neighbor's tree yonder I never
> > would have found the hot spot tap on my 80M ARC-5 tank coil. 1953 age
> > 16? Precocious I was not and I still ain't. I forget. But then I
> > discovered that tuning up by maxing the output of Mrs. Chandler's, the
> > next door neighbor the pore thing, bathroom lamp was a more better
> > route to go than the fluorescent tube when it got down to flooding the
> > neighborhood with RF then tuning around with the S-40B for a contact.
> >
> > We're ALL nuts.
> >
> >>
> >> Roy Lewallen, W7EL
> >
> > w3rv
>
> Put a fluorescent lamp on your mobile antenna.

> What fun!
> And yes, we must all be nuts.
> ;^)
> 73, H.

It's from too much exposure to RF!

Irv VE6BP
--
---
Diagnosed Type II Diabetes March 5 2001
Beating it with diet and exercise!
297/215/210 (to be revised lower)
58"/43"(!)/44" (already lower too!)
---
Visit my HomePage at http://members.shaw.ca/finkirv/index.html
Visit my Baby Sofia website at http://members.shaw.ca/finkirv4/index.htm
Visit my OLDTIMERS website at http://members.shaw.ca/finkirv5/index.htm
---
Irv Finkleman,
Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
Calgary, Alberta, Canada

# 3121. Re: You have been warned !

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-04 16:41:54 UTC
From: "H. Adam Stevens, NQ5H" <NQ5H@ARRL.net>
Message-ID: <10r3q6gfluvd4bc@corp.supernews.com>
Source record: 85818

"Irv Finkleman" <finkirv@shaw.ca> wrote in message
news:41B1E4BA.A7150EAC@shaw.ca...
> "H. Adam Stevens, NQ5H" wrote:
>>
>> "Brian Kelly" <kelly@dvol.com> wrote in message
>> news:d22b54c3.0412030445.60211c86@posting.google.com...
>> > Roy Lewallen <w7el@eznec.com> wrote in message
>> > news:<10qv4bcigm45e5b@corp.supernews.com>...
>> >> Reg Edwards wrote:
>> >> > . . .
>> >> > But the motion of the two coils, one inside the other, built into a
>> >> > working
>> >> > transmitter would fascinate visitors to the shack. An attraction
>> >> > quite
>> >> > capabable of overcoming the disadvantage of a ridiculous low Q at 30
>> >> > MHz.
>> >> > It's even better than watching one set of 500pF capacitor plates
>> >> > slowly
>> >> > disappearing inside the other.
>> >> > ----
>> >>
>> >> Here in the U.S., where conspicuous excess is widely considered a
>> >> virtue
>> >> (big guns, big trucks, big bellies, big antennas, big power. . .),
>> >> you'd
>> >> surely have to include a fluorescent tube suspended in the middle.
>> >> It's
>> >> especially important now that 866A's have become passe.
>> >>
>> >> (I have fond memories from my childhood of a neighbor ham, ...BFB --
>> >> 'Barrel Full of Beer', who ran a kW -- at least -- of AM into a lazy H
>> >> antenna which had a 4 foot fluorescent tube at each of the 4 wire
>> >> ends.
>> >> It impressed me as being really cool -- but then I was 11 at the
>> >> time.)
>> >
>> > If it wasn't for the fluorescent tube I taped to the wire going out
>> > the back window of my bedroom to a neighbor's tree yonder I never
>> > would have found the hot spot tap on my 80M ARC-5 tank coil. 1953 age
>> > 16? Precocious I was not and I still ain't. I forget. But then I
>> > discovered that tuning up by maxing the output of Mrs. Chandler's, the
>> > next door neighbor the pore thing, bathroom lamp was a more better
>> > route to go than the fluorescent tube when it got down to flooding the
>> > neighborhood with RF then tuning around with the S-40B for a contact.

>> >
>> > We're ALL nuts.
>> >
>> >>
>> >> Roy Lewallen, W7EL
>> >
>> > w3rv
>>
>> Put a fluorescent lamp on your mobile antenna.
>> What fun!
>> And yes, we must all be nuts.
>> ;^)
>> 73, H.
>
> It's from too much exposure to RF!
>
> Irv VE6BP
> --
> ------------------------------------
> Diagnosed Type II Diabetes March 5 2001
> Beating it with diet and exercise!
> 297/215/210 (to be revised lower)
> 58"/43"(!)/44" (already lower too!)
> ------------------------------------
> Visit my HomePage at http://members.shaw.ca/finkirv/index.html
> Visit my Baby Sofia website at http://members.shaw.ca/finkirv4/index.htm
> Visit my OLDTIMERS website at http://members.shaw.ca/finkirv5/index.htm
> --------------------
> Irv Finkleman,
> Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
> Calgary, Alberta, Canada
Irv
That's like saying you can get too much sex.
73, H.

# 3122. Re: Will Accept Any Reasonable Offer

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-04 16:51:49 UTC
From: "Randy A. Hefner" <randy_NO_SPAM_PLEASE_@murs-usa.com>
Message-ID: <31e7tfF3akuihU1@individual.net>
Source record: 85819

So the "claim" of "any reasonable offer" is incorrect. The truth is "any offer the seller will take" should have been on the subject line!

Any reasonable offer would include MY reasonable offer.

"w3cqh" <nedrog@aol.comNOSPAM> wrote in message news:20041203193612.21753.00001191@mb-m12.aol.com...
> If you ae interested in any of the items - send me an email with your offer,
> and if i think it is reasonable, I will sell that item to you!
>
> 73's
>
>

---
Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.802 / Virus Database: 545 - Release Date: 11/26/2004

# 3123. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-04 16:53:07 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <cbL5fDSztesBFAsH@ifwtech.co.uk>
Source record: 85821

Cecil A. Moore wrote:
> "Power" for a power engineer working at a
>power generating plant measuring megajoules/sec in a transmission line
>simply does not have the same definition as "power" for a physics professor.

"Power" is just a single word, so it certainly does have to carry
several different shades of usage.

My point is that the competent engineer and the competent physics
professor understand that their different usages are still completely
consistent at a fundamental level.

I don't believe you understand the discipline that that need for
consistency imposes.

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

# 3124. Re: smallest wire gauge for dipole: full kW?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-04 17:02:59 UTC
From: chuck <chuck@nospam.net>
Message-ID: <75msd.4976$Va5.4197@newsread3.news.atl.earthlink.net>
Source record: 85820

And then you want to think about modes. If you are operating SSB or CW,
the average power will be much less than 1000 watts.

Bart Rowlett wrote:
> Hal Rosser wrote:
>
>> "gibberdill" <gibberdill@bak.rr.com> wrote in message
>> news:CoQrd.1553$Ew6.1378@twister.socal.rr.com...
>>
>>> I plan to use my 26 ga. 75 meter dipole (stealth antenna)-- now with 100
>>
>>
>> W--
>>
>>> with my new amplifier, with 800-1000 W output. Is that too small a
>>> gauge?
>>> How much current can I expect it to take? Even if it doesn't get too
>>> hot,
>>> will it be significantly less efficient?
>>>
>>
>>
>> Ohms law is gonna put 20 amps on that wire (1000 watts / 50 ohms)
>
>
> P = I*I * R
> I = sqrt(P / R) = 4.47 A
>
> bart
>

# 3125. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-04 17:25:17 UTC
From: "H. Adam Stevens, NQ5H" <NQ5H@ARRL.net>
Message-ID: <10r3snqinppgba7@corp.supernews.com>
Source record: 85722

"Ian White, G3SEK" <G3SEK@ifwtech.co.uk> wrote in message
news:cbL5fDSztesBFAsH@ifwtech.co.uk...
> Cecil A. Moore wrote:
>> "Power" for a power engineer working at a
>>power generating plant measuring megajoules/sec in a transmission line
>>simply does not have the same definition as "power" for a physics
>>professor.
>
> "Power" is just a single word, so it certainly does have to carry several
> different shades of usage.
>
> My point is that the competent engineer and the competent physics
> professor understand that their different usages are still completely
> consistent at a fundamental level.
>
> I don't believe you understand the discipline that that need for
> consistency imposes.
>
Cecil's back at it, I see.

>
>
> --
> 73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
> http://www.ifwtech.co.uk/g3sek

# 3126. Re: Oddity of ground mounted antenna's.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-04 17:35:42 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <LL88r+UuVfsBFA+u@ifwtech.co.uk>
Source record: 85723

chuck wrote:
>Intuitively, and looking at Moxon's sketch, it would seem that the
>effect would be simply to rotate the vertical pattern by the amount of
>the slope. Aiming the pattern "down the slope" rather than "toward the
>horizon" does not seem to be a necessarily worse situation as Moxon
>suggests. Wouldn't that actually put more energy out toward the horizon?

That is true in principle, but the problem with a ground-mounted vertical antenna is that the angle of maximum radiation is fixed in relation to the ground. That means the angle of the slope has to be just right, and in general it also needs to be very steep.

With a horizontal antenna, you can vary the angle of maximum radiation by adjusting the height above ground. That makes it easy to apply the technique over a wide range of quite moderate slope angles, using quite modest antenna heights.

Changing the subject slightly, hams have become over-conditioned into wanting a "low" angle of radiation. It's true that we generally do need more radiation at lower angles than we can easily achieve; but until recently, we haven't had the information to understand what angles of radiation we actually *do* need.

Modern HF propagation programs give us that information. Not surprisingly, the optimum angle varies according to the path, the number of hops involved, the heights of the respective layers and the ionization levels... and hence the optimum angle also depends on the time of day, the season, and the year in the sunspot cycle. Recent editions of the ARRL Antenna Handbook analyse this problem in some detail, and show that "lowest possible angle" is not always the best objective if you're aiming to cover all possible cases.

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

# 3127. Re: Satellite Radio Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-04 17:59:45 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <10r3uotlbbsd5f@corp.supernews.com>
Source record: 85724

MikeP wrote:

> Hello,
> Id like to make my own Satellite Radio Antenna(xm) but dont want to
> learn about antennas from the ground up.I am a machinist, so fabrication
> would be pretty easy.Are there any plans.Some basic info may even get me
> started.
> Thanks
> Mike
>
>
The XM radio antenna are circular polarized patch antenna's. The easiest
way to make one is to use printed circuit procedures.
Unless you want to undergo the educational aspects of the exercise my
advice is to buy a commercially made antenna.

Dave WD9BDZ

# 3128. Re: You have been warned !

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-04 18:04:28 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <10r3v20eb4mdh78@corp.supernews.com>
Source record: 85725

H. Adam Stevens, NQ5H wrote:

> "Brian Kelly" <kelly@dvol.com> wrote in message
> news:d22b54c3.0412030445.60211c86@posting.google.com...
>
>>Roy Lewallen <w7el@eznec.com> wrote in message
>>news:<10qv4bcigm45e5b@corp.supernews.com>...
>>
>>>Reg Edwards wrote:
>>>
>>>>. . .
>>>>But the motion of the two coils, one inside the other, built into a
>>>>working
>>>>transmitter would fascinate visitors to the shack. An attraction quite
>>>>capabable of overcoming the disadvantage of a ridiculous low Q at 30
>>>>MHz.
>>>>It's even better than watching one set of 500pF capacitor plates slowly
>>>>disappearing inside the other.
>>>>----
>>>
>>>Here in the U.S., where conspicuous excess is widely considered a virtue
>>>(big guns, big trucks, big bellies, big antennas, big power. . .), you'd
>>>surely have to include a fluorescent tube suspended in the middle. It's
>>>especially important now that 866A's have become passe.
>>>
>>>(I have fond memories from my childhood of a neighbor ham, ...BFB --
>>>'Barrel Full of Beer', who ran a kW -- at least -- of AM into a lazy H
>>>antenna which had a 4 foot fluorescent tube at each of the 4 wire ends.
>>>It impressed me as being really cool -- but then I was 11 at the time.)
>>
>>If it wasn't for the fluorescent tube I taped to the wire going out
>>the back window of my bedroom to a neighbor's tree yonder I never
>>would have found the hot spot tap on my 80M ARC-5 tank coil. 1953 age
>>16? Precocious I was not and I still ain't. I forget. But then I
>>discovered that tuning up by maxing the output of Mrs. Chandler's, the
>>next door neighbor the pore thing, bathroom lamp was a more better
>>route to go than the fluorescent tube when it got down to flooding the
>>neighborhood with RF then tuning around with the S-40B for a contact.
>>
>>We're ALL nuts.
>>
>>
>>>Roy Lewallen, W7EL
>>

>>w3rv
>
>
> Put a fluorescent lamp on your mobile antenna.
> What fun!
> And yes, we must all be nuts.
> ;^)
> 73, H.
>
>
Or a neon lamp. Don't forget that the energy needed to illuminate your
lamp is taken from the energy budgeted to transmission of
intelligence(?).

Dave Nagel WD8BDZ

# 3129. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-04 18:40:20 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <nss3r0l9ua77mg1snfruga1ls8r9q1q60n@4ax.com>
Source record: 85726

On Sat, 04 Dec 2004 05:24:33 GMT, w9dmk@crosslink.net (Robert Lay
W9DMK) wrote:

>>Just today, I made a careful measurement on an RG-8/U line of 5.33
>>meters length at 30 MHz and terminated with a 4700 + j 0 load. The
>>Matched Line Loss of that line at 30 MHz is 0.9 dB per 100 feet, and
>>its Velocity Factor is between 0.75 and 0.80 The input impedance was
>>actually measured at 2.45 -j15 ohms for an SWR at the input of 22.25.
>>The SWR at the load end was 94. Those two SWR's establish a total loss
>>on the line of 0.15 dB. If one were to blindly apply the formula in
>>The Antenna Book on page 24-9, the result obtained would be 4.323 dB.
>>
>Surprisingly, it was not until today that I finally made a computation
>of the input power to the line for the configuration above.
>Specifically, I was able to compute the voltage and current at the
>input to the line that would produce a 100 volt reference voltage
>across the 4700 ohm line. That is the obvious thing that had to be
>done in order to establish a reference power for purposes of computing
>losses. That calculation resulted in an applied voltage at the line
>input of 29.2 volts at angle -171.5 degrees and a current of 1.917
>amps at -90.78 degrees. Computing power into the line as E*Icos(theta)
>= 9.024 watts. The power delivered to the load is 100 volts squared
>divided by 4700 ohms, which is 2.127 watts.
>
>Therefore the efficiency is 23.6% and the losses in the line are 6.275
>dB. In all fairness, I did have to change one assumption in the data
>above. I had to revise my attenuation value of 0.9 dB per 100 ft.
>upwards to a value of 1.72 dB per 100 ft. in order to get my measured
>impedance at the line input to be consistent with that line impedance,
>length, load value and velocity factor.

Hi Bob,

I notice that true to form, all the response in this thread were not
to your bench results. I trust you will appreciate hard
correspondence rather than the fluff.

The one thing (actually there are several) I noted was your having to
double the presumed line loss to make the numbers come out. Given
this injection (or removal) of 100% (or %50) of error, it stands to
reason that your bench, method or instruments need a attention.

The details as I've sifted from the postings:
Cable type = Columbia's number 1198 - not 9913.
Open circuit stub length = 5.334 meters
Frequency = 10.6 MHz,

Input Z = 0.57 + j 0.3 ohms.

The above details appear to have shifted in mid-stream to:
Cable type = RG-8/U line
stub length = 5.334 meters
Frequency = 30.0 MHz,
Open end termination = 4700 + j 0
Input Z = 2.45 -j15

I will skip the determinations of loss and SWR as being problematic as you indicate and simply go with your observations noted above, and summarized here:
Open end Vtermination = 100V @ 0ï¿½
Open end Itermination = 0.0213A @ 0ï¿½
Fed end Vinput = 29.2V @ -171.5ï¿½
Fed end Iinput = 1.917A @ -90.78ï¿½

I was puzzled to see what was initially a resonant stub now measured with an extremely high Reactance until I re-scanned the material to note the tripling of frequency.

What caught my eye was this load and certainly your leap of faith that it was wholly resistive, especially at HF for its size. This would be extremely unlikely even in a standards lab.

To make a measurement, the rule of thumb is to have instrumentation whose precision and accuracy exceeds the goal of measuring an unknown by 5 to 10 times. For really difficult tests (and RF is classic in that regard) 3 times is often the best you can achieve.

Let's look at that 4700 Ohm resistance. It demands that any instrumentation support a paralleling load of no less than 23.5K Ohms to 47K Ohms, or worst case, 14K Ohms. Let's simply ask about the family lineage of that 4700 Ohm resistance. It sounds suspiciously like a common (hopefully) carbon composition resistor.

If so, such beasties are rare if it is of the commercial variety, to not exhibit reactances due to spiral cut value trimming, or an end-to-end capacitance. Let's just say that you obtained a remarkable resistor, but it cannot escape this common parasitic capacitance which for the garden variety resistor amounts to 1.5pF.

At 30 MHz, this 1.5pF capacitance represents a reactance of 3.5K Ohm. This rather sweeps aside your specification for the load and replaces it with 4700 -j3537 Ohms. This is a big time source of error and does not even come close to the 3X requirement for the lowest accuracy. Worse yet, you haven't even added the bridging impedance of your measuring device which is certain to be on par, if not worse (you haven't identified your instrumentation).

Hope you are still looking forward to more fun. ;-)

73's
Richard Clark, KB7QHC

# 3130. Re: Satellite Radio Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-04 18:40:45 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <wvadnQhmB-cEmS_cRVn-rw@comcast.com>
Source record: 85727

"David G. Nagel" <nagel@core.com> wrote in message
news:10r3uotlbbsd5f@corp.supernews.com...
> MikeP wrote:
>
>> Hello,
>> Id like to make my own Satellite Radio Antenna(xm) but dont want to
>> learn about antennas from the ground up.I am a machinist, so fabrication
>> would be pretty easy.Are there any plans.Some basic info may even get me
>> started.
>> Thanks
>> Mike
>>
>>
> The XM radio antenna are circular polarized patch antenna's. The easiest
> way to make one is to use printed circuit procedures.
> Unless you want to undergo the educational aspects of the exercise my
> advice is to buy a commercially made antenna.
>
> Dave WD9BDZ

I don't know about XM, but the Sirius antennas I have seen contain both a CP
sat antenna and a vertical terrestrial antenna. Also, they included preamps.

Tam/WB2TT

# 3131. Lafayette 99-25835 swr & fs meter

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-04 19:00:57 UTC
From: Paul Gryn <evergryn@mnsi.net>
Message-ID: <cot1pu01tri@enews4.newsguy.com>
Source record: 85729

Could anyone tell me if the meter was specifically designed to operate on 27 Mhz?

Thanks in advance,
pg

# 3132. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-04 19:05:24 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <l914r0dh5k13ft2a9fqolb8tn364rdorko@4ax.com>
Source record: 85728

On Sat, 04 Dec 2004 08:20:15 GMT, Richard Clark <kb7qhc@comcast.net>
wrote:

>On Sat, 04 Dec 2004 01:39:21 GMT, Richard Clark <kb7qhc@comcast.net>
>wrote:
>
>>On Sat, 04 Dec 2004 00:20:15 GMT, Richard Clark <kb7qhc@comcast.net>
>>wrote:
>>
>>>On Fri, 03 Dec 2004 23:59:05 GMT, Richard Clark <kb7qhc@comcast.net>
>>>wrote:
>>>Same question
>>>>With absolutely no illusions that he can answer the following:
>>>>
>>>>79 Lumens is emitted by a light bulb of 80% efficiency;
>>>>
>>>>At 0.1 meters distance, it impinges upon a 1 square meter lossy pane
>>>>of glass of ND = 0.125 and 50% is reflected;
>>>>
>>>>At a total distance of 10M boresight beyond that pane, how many Watts
>>>>centered at 555nM ï¿½15nM are found within one square centimeter?
>>>
>>>What is the path loss, in dB? :-)
>>
>>With absolutely no prospects of a correct answer short of my own:
>> 102dB
>>
>>Think you can find how many Watts centered at 555nM ï¿½15nM are found
>>within one square centimeter now?
>>
>>Tougher question: How many Lux? :-)
>>
>>If you can't do Lux, you sure can't do Poynting math.
>
>OK, can't do Poynting math either. The answer to that last is:
> 15.7 mLux
>
>Now, as to Jim's flippant response as to he knew how much power in the
>555nM ï¿½15nM band is found within one square centimeter. His premise
>that if it was a Sodium Vapor lamp, it has only one spectral line at
>590nM. That would have lead to an answer of 0W. However, this is
>only for a low pressure Sodium Vapor lamp. High pressure lamps have a
>very strong 555nM line. At least Jim could walk the walk.
>

>There are a myriad number of other terms, all Optical, that have
>correlatives to RF that would make an Ox stumble along this path. One
>crippling question would be: How much TOTAL power was radiated? :-)
>
>If you can't do Power, especially with all these clues, talking the
>walk about interference is a side show in the carnival.

Can't do path loss, can't do Poynting math, can't do Power can you?

This was a give away. You needed only walk to your storage closet,
pick up a box of light bulbs and note the TWO characteristics printed
on every label - Lumens and Watts - to obtain a workable conversion
factor.

Seeing that I'm the only one likely to offer a correct answer:
10W

That answer is found IN THE FIRST LINE of the description!

This is all from a bulb the size of a christmas tree light. :-O

Dare I return to the original question:
At a total distance of 10M boresight beyond that pane, how many Watts
centered at 555nM ï¿½15nM are found within one square centimeter?

IF you could answer that, you MIGHT be able to do interference math!

# 3133. Re: Oddity of ground mounted antenna's.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-04 20:04:04 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cot57k$bg$1@sparta.btinternet.com>
Source record: 85730

"chuck" <chuck@nospam.net> wrote in message
news:hIIrd.1531$Va5.505@newsread3.news.atl.earthlink.net...
> Hello Gary,
>
> Don't know from personal experience, but Les Moxon, author of HF
> Antennas for all Locations, seems to believe it creates an advantage.
> You might want to read his thoughts on that.

==========

What makes you think he is more right than anybody else?

Why should you be a judge?

Why do you seek support from paid book writers?

Do you lack confidence in your personal judgement and statements?

This small, slightly critical, message is intended to be in the most
friendly of terms. Applicable to many others in these threads.

I wish you the all best of both local stations and DX. And, as the festive
season approaches, an enjoyable Xmas holiday for both you and your family.
----
Reg.

# 3134. Re: You have been warned !

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-04 21:13:59 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <rMpsd.28666$Rf1.20914@newssvr19.news.prodigy.com>
Source record: 85731

"...energy budgeted to transmission of
intelligence(?)"

... ... We're kinda 'pushing' it there, aren't we??
'Doc

# 3135. Re: Oddity of ground mounted antenna's.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-04 21:21:18 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cot9oe$q7o$1@titan.btinternet.com>
Source record: 85732

> >Don't know from personal experience, but Les Moxon, author of HF
> >Antennas for all Locations, seems to believe it creates an advantage.
> >You might want to read his thoughts on that.
> >
>
> The advantages of which Moxon wrote are for *horizontal* polarization
> only. If the antenna height above ground is correct, the ground
> reflection can reinforce low-angle radiation in the downslope direction.
>
> But Moxon also shows specifically that there are *no* such advantages
> for vertical polarization. The ground-reflected ray is lost at a high
> angle.
> --
> 73 from Ian G3SEK

==========

Dear Ian, what has Moxon got to do with it?

Without personal experience how do you know you are not plagiarising and
further propagating old-wives' tales?

If you have personal experience do you need anybody else's support anyway?

Just state the facts on your own authority.

Or do authors all belong to the same masonic club which adds nothing to
veracity?

My only little axe is that I find it irritating when I read about quite
unnecessary references which add nothing but verbiage to the conversation.
Perhaps I'm funny or just impatient in that way.

But I'm sure you understand my non-technical interruption to this thread
with my appology. Reply not needed.

(PS: I have only vaguely heard of Moxon in these newsgroups. Never read him.
Not the slightest disrespect to him, or her, intended. But my own reference
bibles are restricted to Ohm, Ampere and Volta.)
----
I think I can still call you my Internet friend. ;o)
----
Yours, Reg, G4FGQ

# 3136. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-04 21:51:09 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <ipb4r0ptt9ft0mnhkstgkq1ikdrbapk25u@4ax.com>
Source record: 85733

On Sat, 04 Dec 2004 18:40:20 GMT, Richard Clark <kb7qhc@comcast.net>
wrote:

>At 30 MHz, this 1.5pF capacitance represents a reactance of 3.5K Ohm.
>This rather sweeps aside your specification for the load and replaces
>it with 4700 -j3537 Ohms.

Actually 1700 -j2258 Ohms

As you can see, this is the reason why open stubs are avoided.
"Knowing" the parasitic capacitance is problematic. The fringing
effect at the end is difficult to manage whereas a short is much
simpler to define and implement.

73's
Richard Clark, KB7QHC

# 3137. Re: Satellite Radio Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-04 22:58:38 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <10r4g9ajl1t4u20@corp.supernews.com>
Source record: 85734

Tam/WB2TT wrote:
> "David G. Nagel" <nagel@core.com> wrote in message
> news:10r3uotlbbsd5f@corp.supernews.com...
>
>>MikeP wrote:
>>
>>
>>>Hello,
>>> Id like to make my own Satellite Radio Antenna(xm) but dont want to
>>>learn about antennas from the ground up.I am a machinist, so fabrication
>>>would be pretty easy.Are there any plans.Some basic info may even get me
>>>started.
>>> Thanks
>>>Mike
>>>
>>>
>>
>>The XM radio antenna are circular polarized patch antenna's. The easiest
>>way to make one is to use printed circuit procedures.
>>Unless you want to undergo the educational aspects of the exercise my
>>advice is to buy a commercially made antenna.
>>
>>Dave WD9BDZ
>
>
> I don't know about XM, but the Sirius antennas I have seen contain both a CP
> sat antenna and a vertical terrestrial antenna. Also, they included preamps.
>
> Tam/WB2TT
>
>
The terrestrial antenna is for those large city locations (NYC, Chicago,
etc.) where tall buildings can shadow the satellite signal and are
used to supplement the sat sig in these areas. They require local non
space based transmitters.
I used to sell these things.

Dave WD9BDZ

# 3138. Re: You have been warned !

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-04 22:59:44 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <10r4gbd4bojuu6e@corp.supernews.com>
Source record: 85735

'Doc wrote:

> "...energy budgeted to transmission of
> intelligence(?)"
>
> ... ... We're kinda 'pushing' it there, aren't we??
> 'Doc
Well yes if you must know.....

Dave

# 3139. Test- Do not read

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-05 00:09:08 UTC
From: bapittman@gil.com.au
Message-ID: <41b25192.2959751@news.ipswich.gil.com.au>
Source record: 85736

[No readable article body recovered]

# 3140. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-05 00:36:12 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cotl5s$e08$1@titan.btinternet.com>
Source record: 85737

> (PS : You can't deal with reflections without involving Distance,
Velocity,
> Place and Time.)

==========

Just an addition -

You can't deal with Reflections without involving Distance, Velocity,
ECHO's, Place, and, above all, TIME.

Attempted steady-state analyses reduce to non-sense without involving TIME.

But it is a simple matter to relate power levels, one to another, dB-wise or
otherwise, at different PLACES and TIME.

All you guru's, old wives and experts on forward and reflected powers, real
or imaginary, should bear this basic, elementary stuff in mind.

Whatever happened to your primay education?

Power, work and energy are intimately related to TIME.

The self-educated kids living in South American underground Rio sewers,
subjected to culling by armed police, reduced to making a precarious living
be selling laced cigarettes, can do better.

But don't worry about it. Just continue taking your viagra. As for me,
tonight I'm on white, dry, Bordeaux, best consumed within six months of
purchase. And the French know what they are talking about.
----
Reg.

# 3141. Re: Test- Do not read

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-05 00:51:04 UTC
From: Irv Finkleman <finkirv@shaw.ca>
Message-ID: <41B25BB6.303DE3EB@shaw.ca>
Source record: 85738

bapittman@gil.com.au wrote:

How can I not read it if there isn't anything to not not read?
A knotty naughty question?
--
---
Diagnosed Type II Diabetes March 5 2001
Beating it with diet and exercise!
297/215/210 (to be revised lower)
58"/43"(!)/44" (already lower too!)
---
Visit my HomePage at http://members.shaw.ca/finkirv/index.html
Visit my Baby Sofia website at http://members.shaw.ca/finkirv4/index.htm
Visit my OLDTIMERS website at http://members.shaw.ca/finkirv5/index.htm
---
Irv Finkleman,
Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
Calgary, Alberta, Canada

## 3142. Wheel Antenna Plans

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-05 01:09:35 UTC
From: Matt <nospam_ng@fileholder.net>
Message-ID: <10r4o17g9jq4h29@corp.supernews.com>
Source record: 85739

Does anyone know where I can find some construction plans for a "wheel antenna" in the 33cm band?

Matt

# 3143. Converting the Antron 99 to 40m

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-05 01:59:39 UTC
From: Jon <g2fhf@g3sds.org.uk>
Message-ID: <cotq2b$t29$2@newsg1.svr.pol.co.uk>
Source record: 85740

I thought I would let you all know that I have been having great success with an Antron A99 converted to 40m using inductive and capacitive loading. If you are interested please see my website on how to convert it. http://www.littlem.me.uk/g2fhf/index.htm

Jon G2FHF

# 3144. Re: Radials and HF2V

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-05 02:12:47 UTC
From: Bob Miller <rmiller47@satx.rr.com>
Message-ID: <kmq4r05cuh4b27vqg2abqr8vttnh6bebtr@4ax.com>
Source record: 85741

On Thu, 2 Dec 2004 22:54:49 +0100, catz <deni1@tiscali.fr> wrote:

>I'm planning to put up a Butternut HF2V, so... thinking about burying
>some radials.
>Questions...
>I have moles in my land, do they eat radials?
>What is the best wire to use, ie most durable for buried radials?
>Will I be better off with elevated tuned counterpoise wires?
>Any advice?
>
>Tks...
>
>73

Not sure about moles.

But at a previous house with a pier & beam foundation, I had telephone wires running in the crawl space under the house, along the top of the dirt, and howling feral cats in heat chewed the daylights out of the wires. Broke my telephone connection.

Telephone guy came out and he asked what the hell kind of animals I had under the house. Said the wires were mangled beyond belief.

He installed a new set of wires up on the house walls, with the wires firmly stapled in place. That solved the problem.

I'm guessing the cats liked the flavor of the insulation.

Bob
k5qwg

## 3145. Re: smallest wire gauge for dipole: full kW?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-05 02:37:05 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <juusd.97464$IQ.15675@bignews6.bellsouth.net>
Source record: 85742

> > Ohms law is gonna put 20 amps on that wire (1000 watts / 50 ohms)
>
> P = I*I * R
> I = sqrt(P / R) = 4.47 A
>

Thanks for the correction - Don't know what I was thinking at 130 am
P equals I-square R ***of course**
I was treating it like volts * amps = P
and I was apparently confusing R with Volts or Amps

---
Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.799 / Virus Database: 543 - Release Date: 11/19/2004

## 3146. Re: Oddity of ground mounted antenna's.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-05 02:42:35 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <tzusd.97497$IQ.81153@bignews6.bellsouth.net>
Source record: 85743

> Does the term 'uphill' guys imply that there are 'downhill' guys? Would
> they be required? Be careful not to confuse the term 'downhill guys' with
> old hams.

Quite right!
One should not confuse the term "over the hill" with "downhill"
:-)

---
Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.799 / Virus Database: 543 - Release Date: 11/19/2004

# 3147. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-05 02:53:35 UTC
From: w9dmk@crosslink.net
Message-ID: <41b27717.46548673@news.crosslink.net>
Source record: 85744

On Sat, 04 Dec 2004 21:51:09 GMT, Richard Clark <kb7qhc@comcast.net>
wrote:

>On Sat, 04 Dec 2004 18:40:20 GMT, Richard Clark <kb7qhc@comcast.net>
>wrote:
>
>>At 30 MHz, this 1.5pF capacitance represents a reactance of 3.5K Ohm.
>>This rather sweeps aside your specification for the load and replaces
>>it with 4700 -j3537 Ohms.
>
>Actually 1700 -j2258 Ohms
>
>As you can see, this is the reason why open stubs are avoided.
>"Knowing" the parasitic capacitance is problematic. The fringing
>effect at the end is difficult to manage whereas a short is much
>simpler to define and implement.
>
>73's
>Richard Clark, KB7QHC

Dear Richard,
Each and every one of your concerns is deeply appreciated. I had
seriously about measuring that 4700 ohm resistor by itself for just
the reasons that you mention. The reason that I did not is quite
simple. The Resistance dial on the General Radio Model 1606B RF Bridge
only goes to 1000 ohms. C'est la Vie!

I could have chosen a much lower resistance to start with, but then I
would not have had the desired high SWR, which is critical to the
experiment. You might well ask why I made the switch from a 1/4 wave
open ended stub (at 10.6 Mhz) to the 30 MHz test using the same piece
of line. That was to get a high SWR and still have reasonable
confidence in the value without actually measuring it. Perhaps I
should use a capacitor instead. That's still a possibility. I am
thinking of doing it over with a measured 1 k resistor, and just
accepting the SWR of only 20:1. I don't think I have any low ohm
resistors that would give me something around 1 to 3 ohms and still be
low inductance - not from my parts box. Actually, I doubt seriously
that the capacitance effects are as bad as you are suggesting, but I
won't argue that without some additional measurements.

My reason for not going with a short circuit was even simpler. I
wanted a concrete value for a non-zero load power.

Regarding the artificial adjustment of the attenuation loss from
around 0.9 up to about 1.72 did not bother me at the time that I did

it, but I can see why it bothers an independant observer. I will have to do something about that, and perhaps doing it over with a 1 K resistor is the answer to all of that - so, here goes, and I will get back to you in a few hours.

BTW - this is becoming more and more academic, since I think the real mystery has been resolved, but there's nothing like getting it wrapped up with a proper ribbon.

Bob, W9DMK, Dahlgren, VA
http://www.qsl.net/w9dmk

# 3148. Re: Wheel Antenna Plans

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-05 04:57:55 UTC
From: dplatt@radagast.org
Message-ID: <10r55ajhesl5a31@corp.supernews.com>
Source record: 85745

>Does anyone know where I can find some construction plans for a "wheel
>antenna" in the 33cm band?

Depends which variant you're looking for.

One "wheel" antenna type is the halo, which is basically a halfwave
dipole bent into a circle, with the ends an inch or two apart (the
distance is an important factor in the tuning), usually fed via a
gamma match. Google for "2-meter halo" (a common variety) and rescale
the design as necessary.

Another variant is the "big wheel", which is three full-wavelength
loops (each bent into a third-of-an-apple-pie shape) fed in parallel,
with a hairpin inductor shunted across the common feedpoint. Older
editions of the ARRL VHF Handbook contain plans; I don't know about
the current edition.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

# 3149. Re: smallest wire gauge for dipole: full kW?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-05 05:16:14 UTC
From: gibberdill <gibberdill@bak.rr.com>
Message-ID: <yQwsd.184$hd.91@twister.socal.rr.com>
Source record: 85746

Thanks all.

"Hal Rosser" <hmrosser@bellsouth.net> wrote in message
news:juusd.97464$IQ.15675@bignews6.bellsouth.net...
>> > Ohms law is gonna put 20 amps on that wire (1000 watts / 50 ohms)
>>
>> P = I*I * R
>> I = sqrt(P / R) = 4.47 A
>>
>
> Thanks for the correction - Don't know what I was thinking at 130 am
> P equals I-square R ***of course**
> I was treating it like volts * amps = P
> and I was apparently confusing R with Volts or Amps
>
>
>
> ---
> Outgoing mail is certified Virus Free.
> Checked by AVG anti-virus system (http://www.grisoft.com).
> Version: 6.0.799 / Virus Database: 543 - Release Date: 11/19/2004
>
>

# 3150. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-05 07:24:36 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <l9c5r01o95pcrv490pvnn189rcs451sepl@4ax.com>
Source record: 85747

On Sun, 05 Dec 2004 02:53:35 GMT, w9dmk@crosslink.net (Robert Lay W9DMK) wrote:

>Each and every one of your concerns is deeply appreciated. I had
>seriously about measuring that 4700 ohm resistor by itself for just
>the reasons that you mention. The reason that I did not is quite
>simple. The Resistance dial on the General Radio Model 1606B RF Bridge
>only goes to 1000 ohms. C'est la Vie!

Say la-la!

Hi Bob,

Good, you have a great piece of equipment, but the implicit question remains, what do you use to measure the voltage? That is going to be a serious load across even a 4700 +j0 resistor. Even X10 Scope probes would be a poor method.

>I could have chosen a much lower resistance to start with, but then I
>would not have had the desired high SWR, which is critical to the
>experiment. You might well ask why I made the switch from a 1/4 wave
>open ended stub (at 10.6 Mhz) to the 30 MHz test using the same piece
>of line. That was to get a high SWR and still have reasonable
>confidence in the value without actually measuring it. Perhaps I
>should use a capacitor instead. That's still a possibility.

Hardly worth the thought actually. The 1.5pF stray capacitance would be a coup-de-grace for the resistor, do you think you could find less capacitance (with or without the resistor) when there is probably already that much in fringe capacitance?

>I am
>thinking of doing it over with a measured 1 k resistor, and just
>accepting the SWR of only 20:1. I don't think I have any low ohm
>resistors that would give me something around 1 to 3 ohms and still be
>low inductance - not from my parts box. Actually, I doubt seriously
>that the capacitance effects are as bad as you are suggesting,

They are, life is cruel.

>but I
>won't argue that without some additional measurements.

It's better than sitting on the park bench with a box of chocolates and spouting the philosophy of optical interference. For that you get my Kudos.

>My reason for not going with a short circuit was even simpler. I
>wanted a concrete value for a non-zero load power.
>
>Regarding the artificial adjustment of the attenuation loss from
>around 0.9 up to about 1.72 did not bother me at the time that I did
>it, but I can see why it bothers an independant observer. I will have
>to do something about that, and perhaps doing it over with a 1 K
>resistor is the answer to all of that - so, here goes, and I will get
>back to you in a few hours.

Well, one way is to take your measurements and stick with the original attenuation loss and transform from the input to this 4700 Ohm load. Does the data suggest this load is closer to my hip shot guess? You have a reactance built into your results that is unaccounted for, but comes with this parasitic inclusion I offer.

>BTW - this is becoming more and more academic, since I think the real
>mystery has been resolved, but there's nothing like getting it wrapped
>up with a proper ribbon.

It's all academic, Bob. When you have to take more than one exam (with questions that go beyond parallel parking) to pursue a hobby it's part of the turf. Owning a GR-1606 caps it.

73's
Richard Clark, KB7QHC

# 3151. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-05 08:04:25 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <6rd5r0d0fas3impoab380t0f563hdq9gim@4ax.com>
Source record: 85748

On Sat, 04 Dec 2004 19:05:24 GMT, Richard Clark <kb7qhc@comcast.net>
wrote:

>Dare I return to the original question:
>At a total distance of 10M boresight beyond that pane, how many Watts
>centered at 555nM ï¿½15nM are found within one square centimeter?
>
>IF you could answer that, you MIGHT be able to do interference math!

Can't do path loss, can't do Poynting math, can't do Power, and can't
do interference math can you? A tape recorder can repeat equations.

This is pretty grim:
0.55 nW/cMï¿½

Which, of course, is accessible from the already provided path loss,
IF you could find the apportioned spectrum of the original Power.

This introduces yet another question that would go unanswered - but
Bob offers that rare, rare prospect of engaging in dialog that
contains actual hands on data, a treat in comparison.

# 3152. Re: Oddity of ground mounted antenna's.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-05 09:09:43 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <ftyZC9EXBtsBFAel@ifwtech.co.uk>
Source record: 85749

Reg Edwards wrote:
>> >Don't know from personal experience, but Les Moxon, author of HF
>> >Antennas for all Locations, seems to believe it creates an advantage.
>> >You might want to read his thoughts on that.
>> >
>>
>> The advantages of which Moxon wrote are for *horizontal* polarization
>> only. If the antenna height above ground is correct, the ground
>> reflection can reinforce low-angle radiation in the downslope direction.
>>
>> But Moxon also shows specifically that there are *no* such advantages
>> for vertical polarization. The ground-reflected ray is lost at a high
>> angle.
>> --
>> 73 from Ian G3SEK
>
>==================================
>
>Dear Ian, what has Moxon got to do with it?
>
He was the person who was being misquoted. In the first reply, I was
setting that record straight.

>Without personal experience how do you know you are not plagiarising and
>further propagating old-wives' tales?
>
Because, whatever else I read, I also do my own thinking.

>If you have personal experience do you need anybody else's support anyway?
>
>Just state the facts on your own authority.
>
>Or do authors all belong to the same masonic club which adds nothing to
>veracity?
>
Certainly not; most authors do value a cross-check on their own thinking
- and above all, a cross-check against reality.

I certainly do, because it's how I was trained.

The value of the major academic textbooks is that most of them have been
in the public domain for decades, and available for critique and
cross-checking and correction in later editions. If your own findings
don't agree with the pool of knowledge that's already out there, you'd
better have some strong reasons to hand.

In this respect, all amateur radio publications are in a lesser league.
They are still going through the process of critique and technical
clarification - marvellously accelerated by the Internet in recent years
- but they're not there yet.

>(PS: I have only vaguely heard of Moxon in these newsgroups. Never read him.
>Not the slightest disrespect to him, or her, intended.

Perhaps you should: Moxon was a lot like you in his methods and his ways
of thinking.

>But my own reference
>bibles are restricted to Ohm, Ampere and Volta.)

All three of whom are conveniently not available for comment.

>----
>I think I can still call you my Internet friend. ;o)
>----

For about 15 hours out of 24, I reckon.

But anytime after your first glass of the evening, and before my first
cup of coffee the next day, don't push your luck :-)

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

# 3153. Re: Test- Do not read

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-05 10:28:42 UTC
From: "H. Adam Stevens, NQ5H" <NQ5H@ARRL.net>
Message-ID: <10r5ommn5fs3h17@corp.supernews.com>
Source record: 85750

"Irv Finkleman" <finkirv@shaw.ca> wrote in message
news:41B25BB6.303DE3EB@shaw.ca...
> bapittman@gil.com.au wrote:
>
> How can I not read it if there isn't anything to not not read?
> A knotty naughty question?
> --
> ------------------------------------
> Diagnosed Type II Diabetes March 5 2001
> Beating it with diet and exercise!
> 297/215/210 (to be revised lower)
> 58"/43"(!)/44" (already lower too!)
> ------------------------------------
> Visit my HomePage at http://members.shaw.ca/finkirv/index.html
> Visit my Baby Sofia website at http://members.shaw.ca/finkirv4/index.htm
> Visit my OLDTIMERS website at http://members.shaw.ca/finkirv5/index.htm
> -------------------
> Irv Finkleman,
> Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
> Calgary, Alberta, Canada

OK Irv
Do not read this sentence.
;^)
73, H.

# 3154. Re: Test- Do not read

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-05 14:09:27 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cov4qn$6df$1@hercules.btinternet.com>
Source record: 85751

> How can I not read it if there isn't anything to not not read?
> A knotty naughty question?
> --
If you can't read anything how do you know there is nothing wrong at your
end?
You ought to do a few checks.

# 3155. Re: Converting the Antron 99 to 40m

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-05 15:57:17 UTC
From: CW <cmagers@earthlink.net>
Message-ID: <SM6dne5SEMk4si7cRVn-ig@comcast.com>
Source record: 85752

I went to your website. The schematic of the static discharge unit is
copied off of my website. This is a copyright violation. While I don't mind,
if you do this in the future (with other sites), it would be in your best
interest to get the authors permission.
CW
KC7NOD

"Jon" <g2fhf@g3sds.org.uk> wrote in message
news:cotq2b$t29$2@newsg1.svr.pol.co.uk...
> I thought I would let you all know that I have been having great success
> with an Antron A99 converted to 40m using inductive and capacitive
> loading. If you are interested please see my website on how to convert
> it. http://www.littlem.me.uk/g2fhf/index.htm
>
> Jon G2FHF

# 3156. Re: Oddity of ground mounted antenna's.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-05 16:56:42 UTC
From: "J. Mc Laughlin" <jcm@power-net.net>
Message-ID: <10r6fe6352tquf7@corp.supernews.com>
Source record: 85753

From decades of looking at optimum take-off-angles (TOA) at HF for long paths, I have found that TOAs are rarely above 12 degrees and only occasionally below 2 degrees. This leads to the conclusion that if cost were not an issue and one could only put up one horizontally polarized gain antenna (Yagi, LPDA, or such), the antenna should be 2 to 2.5 WL high. At least one edition of the ARRL Antenna Book has the same conclusion.

A higher antenna starts to have nulls in the useful range of TOAs.

As usual, Ian has the right idea.

73 Mac N8TT

--
J. Mc Laughlin; Michigan U.S.A.
Home: JCM@Power-Net.Net
"Ian White, G3SEK"
>
> That is true in principle, but the problem with a ground-mounted
> vertical antenna is that the angle of maximum radiation is fixed in
> relation to the ground. That means the angle of the slope has to be just
> right, and in general it also needs to be very steep.
>
> With a horizontal antenna, you can vary the angle of maximum radiation
> by adjusting the height above ground. That makes it easy to apply the
> technique over a wide range of quite moderate slope angles, using quite
> modest antenna heights.
>
> Changing the subject slightly, hams have become over-conditioned into
> wanting a "low" angle of radiation. It's true that we generally do need
> more radiation at lower angles than we can easily achieve; but until
> recently, we haven't had the information to understand what angles of
> radiation we actually *do* need.
>
> Modern HF propagation programs give us that information. Not
> surprisingly, the optimum angle varies according to the path, the number
> of hops involved, the heights of the respective layers and the
> ionization levels... and hence the optimum angle also depends on the
> time of day, the season, and the year in the sunspot cycle. Recent
> editions of the ARRL Antenna Handbook analyse this problem in some
> detail, and show that "lowest possible angle" is not always the best
> objective if you're aiming to cover all possible cases.
>
>
> --

> 73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
> http://www.ifwtech.co.uk/g3sek

# 3157. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-05 16:57:11 UTC
From: Bart Rowlett <bart@wb6hqk.ampr.org>
Message-ID: <41B33DE7.8030403@wb6hqk.ampr.org>
Source record: 85754

Cecil Moore wrote:
> Reg Edwards wrote:
>
>> Instead of messing about calculating the additional loss due to SWR
>> and then
>> adding it to the matched loss, I've just had a wonderful idea.
>>
>> Why not calculate the actual line loss directly and solve all your
>> problems
>> at one fell swoop.
>
> What is the formula for the total dB loss?

I don't know of one, but here's a procedure which will get you the answer:

1) Determine the transmission line characteristics R, G, L & C at the
frequency of interest.

2) Determine the transmission line termination impedance (or admittance)
at the frequency of interest.

3) For convenience, define the excitation at the input to the
transmission line. e.g. defined voltage, current, or generator with
defined source impedance.

4) Solve the transmission line equation for both the voltage and
current, as a function of time and position, subject to the imposed
boundary conditions. Use any method you wish, though the usual approach
is the so called method of reflections where the complete solution is
taken as the summation of damped forward and reverse traveling waves.
Calculation of Zo and Gamma require knowledge of R,G,L & C.

The solution can be expressed algebraically in terms of hyperbolic
functions and will be found in any good transmission line reference.

Now known are v(x,t) and i(x,t).

5) Separately calculate the dissipative losses due to series resistance
and shunt conductance (or dielectric power factor) as follows:

a) The loss due to series resistance at any instant in time for some
section of transmission line, is i(x,t)^2 * R * dx, integrated over the
subject transmission line section.

b) The loss due to shunt conductance at any instant in time for some
section of transmission line, is v(x,t)^2 * G * dx, integrated over the
subject transmission line section.

c) The total dissipative power loss is the the sum of the time averaged series and shunt loss components, integrated over the entire transmission line length.

Consider:

The SWR (reflection coefficient at the termination) alone is not sufficient to determine the loss in general. This is an important concept to understand.

For illustration, assume the limiting case where the shunt conductance can be disregarded. This is a useful approximation for many transmission line installations used at HF where the SWR is reasonably low (<50). In such practical cases the losses will be dominated by series resistance.

Consider a short (<45 electrical degrees) transmission line terminated in a pure resistance which is much less than Ro. The standing wave pattern will be such that the current will be maximum, and the voltage minimum, at the termination. The losses can be calculated using the procedure given above.

Now consider the same transmission line terminated in a pure resistance larger than Ro such that the SWR is the same as previously. The current will now be minimum at the termination and the total dissipative loss will be considerably less than when the termination resistance is low, even though the SWR is identical.

Transmission line losses depend on both the actual load impedance and the transmission line parameters. Knowing matched attenuation (dB/length) and load SWR is not sufficient to calculate losses exactly. Any formulas using only SWR and matched transmission line loss are approximations and must be used carefully!

Feeding electrically short antennas with 50 ohm coax as is commonly attempted by amateurs on 80 & 160m can result in transmission line losses much larger than predicted using the simple approximations given in the amateur literature.

bart
wb6hqk

# 3158. Re: Open wire source?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-05 17:20:06 UTC
From: Bob Miller <rmiller47@satx.rr.com>
Message-ID: <tdg6r054fbi5numtj0klm80m6sbr3u0rid@4ax.com>
Source record: 85756

On Sat, 4 Dec 2004 20:27:38 GMT, ehramm@dk3uz.ampr.org (Edmund H.
Ramm) wrote:

>In <ArKdnd9Y_oNo0S3cRVn-gw@comcast.com> "Bob P" <nospam@nospam.end> writes:
>
>> Anyone know of any outfits selling open wire line?
>> [...]
>
> W7FG for one. www.w7fg.com
>
> Just beware of the stuff called "Wireman". It's no better than
>twinlead, i.e. susceptible to weather and dirt. For more detailed
>information you might want to read N7WS' article "Balanced Trans-
>mission Lines in Current Amateur Radio Practice".
>
> 73, Eddi ._._.

There is no stuff called "Wireman". There is a supplier of ham radio
antenna supplies called "The Wireman". I get most of my antenna
materials from him lately, and they're pretty good, including the
ladderline he sells. Specifically, what's the problem?

The open wire line from w7fg, by the way, is well made. I have a hank
of it, aand no complaints.

bob
k5qwg

# 3159. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-05 17:30:23 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <covgjf$jv8$1@titan.btinternet.com>
Source record: 85755

You are all floundering about like fish out of water.

The ONLY way to predict the performance of a small resistor at UHF is to treat it as a transmission line - starting with the simple dimensions of length and diameter.

L, C and R, and short-circuit input resistance versus frequency automatically drop into your laps with adequate ball-park accuracy.

As so-called engineers, if you can't measure it, such obvious arithmetical techniques should already have been included in your elementary analytical educations.

Spice (of which I have heard about only by reputation on newsgroups) is useless unless one already knows what it's all about beforehand.

My criticism is not personal - only of the western world's educational systems and insistent dependence on weapons of mass-destruction.
---
Reg.

## 3160. Re: smallest wire gauge for dipole: full kW?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-05 18:01:40 UTC
From: k7itm@aol.com
Message-ID: <3200347.0412051001.3607317f@posting.google.com>
Source record: 85757

Of course, Bart's math is fine. Seems like there's a bit more to the story. The current may be less because the actual antenna impedance may be a bit higher than 50 ohms, but 50 is probably a reasonable figure for calculations, to be on the safe side. And Chuck's right that the heating may be much less because of the mode of operation.

But...what current would be too much? The RF resistance of the 26AWG wire at 4MHz is about 125 ohms/1000 feet, or about 3.06 times the DC resistance, at 20C. The DC current to get the same heating as a 4MHz RF current would then be about sqrt(3.06)=1.75 times the RF current--close to 8 amps, using Bart's calculated RF current. (It's actually a bit less as the wire gets hot and its resistance goes up, because the skin depth increases with increased resistance, but use 1.75 times for a worst-case.) Since the fusing current (current at which a wire in nom. 20C ambient will melt) is 20.5A for 26AWG copper, you're very unlikely to melt the wire, but it very well might get pretty hot, depending on actual operating conditions.

Suggestion: suspend a foot or so of 26AWG like you used in your antenna, with a weight on the bottom end to put similar tension in the wire to what you have in your antenna. Run a DC current through it, and see if anything bad happens (like getting too hot, stretching too much, or whatever). Use a DC current so that the heating will be similar to what you'd get worst-case with your antenna setup. Or use RF, if it's easy for you to do that...DC would be easy for me. Expect to get very similar heating if you use about 1.75 times as much DC current as what the RF current will be. So try about 8 amps for a worst-case test.

Cheers,
Tom

Bart Rowlett <bart@wb6hqk.ampr.org> wrote in message
news:<41B1CF70.6020202@wb6hqk.ampr.org>...
> Hal Rosser wrote:
> > "gibberdill" <gibberdill@bak.rr.com> wrote in message
> > news:CoQrd.1553$Ew6.1378@twister.socal.rr.com...
> >
> >>I plan to use my 26 ga. 75 meter dipole (stealth antenna)-- now with 100
> >
> > W--
> >
> >>with my new amplifier, with 800-1000 W output. Is that too small a gauge?
> >>How much current can I expect it to take? Even if it doesn't get too hot,
> >>will it be significantly less efficient?

> >>
> >
> >
> > Ohms law is gonna put 20 amps on that wire (1000 watts / 50 ohms)
>
> P = I*I * R
> I = sqrt(P / R) = 4.47 A
>
> bart

# 3161. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-05 18:07:13 UTC
From: Bart Rowlett <bart@wb6hqk.ampr.org>
Message-ID: <41B34E51.9050904@wb6hqk.ampr.org>
Source record: 85758

Cecil Moore wrote:
> Reg Edwards wrote:
>
>> Cecil, when there are several different power levels at different
>> places in
>> a circuit, it is entirely up to you how you reference one to another
>> in dB.

> Now Reg, that just cannot be true.

It is true.

>Otherwise, there would exist no
> conventions.

Multiple conventions exist in all the technical disciplines. A well versed practioneer is familiar with the various conventions commonly in use and will choose the one most appropriate to the problem at hand. General terms such as 'gain' and 'loss' always require the context be carefully established before the term can be used with any precision. For example, dissipative loss in a transmission line is different from transducer loss, but both are often expressed in decibels. One relates to an actual ratio of two physically meaningful power levels, and the other is notional.

>It's a simple question: When you tell me that the losses
> in a transmission line with reflections are 2 dB, exactly what power
> are you referencing those losses against?

Reasonable question. Without knowing the context the statement is essentially meaningless.

>> Reflected volts - yes!
>> Reflected current - yes!
>> Reflected power - NO!
>
> Reflected volts and reflected current existing without any associated
> joules/sec????

Reg didn't say any such thing. The wave equation is usually expressed in terms related to the two complementary field quantities associated with energy storage. In the case of TEM transmission lines, the two variables are voltage, and current. The method of reflections (images) used to facilitate solution of the wave equation, utilizes the concept of voltage and current reflection coefficient respectively. These concepts are used to find the v(x,t) and i(x,t) without any reference to to power or energy. Once v(x,t) and i(x,t) are known, the power, v(x,t)

* i(x,t) can easily be calculated at any point x and time t. The
energy storage density can be calculated as i(x,t)^2 * L/2 + v(x,t)^2 *
C/2. As you might expect, the v(x,t)*i(x,t) is the derivative of the
energy storage density.

>I've heard of waves without any trace of energy before,
> Reg, but I certainly didn't expect to hear miracle metaphysics from you.

'Solving' the wave equation for TEM transmission lines usually means
determining the values of the v(x,t) and i(x,t) as a function of place
and time. Energy distribution, and it's movement, is easily calculated
from the knowledge of v(x,t) and i(x,t).

> Whatever happened to V*I*cos(theta) being power?

Hasn't changed; works for DC out to upper microwave frequencies.

>The power companies
> would be surprised to learn that they are not transferring any joules/sec
> to their customers.

Indeed they would. Who do you know who believes they are not
transferring energy to their customers?

bart
wb6hqk

# 3162. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-05 18:46:49 UTC
From: Mike Coslo <mcoslo@adelphia.net>
Message-ID: <HdednWDJIPUEyi7cRVn-gg@adelphia.com>
Source record: 85760

aunwin@insightbb.com wrote:

> "Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
> news:cor368$t5n$1@titan.btinternet.com...
>
>>"Cecil Moore" wrote
>>
>>>>Reg Edwards wrote:
>
> SNIP
> I wonder why I ever bothered to introduce Chipman to this newsgroup.
>
>>Try him.
>>
>>----
>>Reg.
>>
>
>
> Reg,
> This thread is purely a platform for snide remarks or for the pursuit of
> appearing clever
> to readers. It is not for technical education but instead it is a duking out
> of smarmy comments so as to produce a suedo pecking order for onlookers
> to assuage who has the most accumen with respect antenna education.

Art, I think most of us "onlookers" are just chuckling, at least those
of us who are left reading the thread.

Have you ever seen the videos of the American Prairie Chicken during
its mating ritual? That is the mental picture I keep geting from this
kind of stuff.

- Mike KB3EIA -

# 3163. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-05 18:47:30 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <mdl6r0hd6k6onkj9p0shr7g9k4qdbfccni@4ax.com>
Source record: 85759

On Sun, 5 Dec 2004 17:30:23 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:
>You are all floundering about like fish out of water.
...
>My criticism is not personal

Of course not Reggie,

But neither is it original, and if you had been following the technical correspondence instead of the fluff offerings, you would have observed neither of us is in danger of falling prey to all the ills you offer cautions against. Preach to those who need redemption and confine your comments along our technical interchanges to coin in kind.

73's
Richard Clark, KB7QHC

# 3164. Re: Is this jack wired correctly?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-05 18:49:34 UTC
From: Mike Coslo <mcoslo@adelphia.net>
Message-ID: <HdednWPJIPWjxS7cRVn-gg@adelphia.com>
Source record: 85761

drwxr-xr-x wrote:

> On Thu, 02 Dec 2004 11:49:26 -0500, Ken hath writ:
>
>>On 2 Dec 2004 16:22:01 GMT, drwxr-xr-x <bit-bucket@config.com> wrote:
>>
>>>Nice antenna topic!
>>
>>You do have a point, but why waste the bandwith to respond -- if you
>>don't have a helpful suggestion. It is at least a radio question.
>
>
> And, this ng does _not_ address radios.
>
>
>>Your comment and the general lack of response did make me think to
>>post it to sci.electronics.basics.
>
>
> Yes-sir-ee, Bob. When ever I have an *equipment* question, I would
> never think to post it in a ng covering *equipment* (like
> rec.radio.amateur._equipment_), where all the participants are focused
> on discussing *equipment*. No, my brilliant choice would be to
> post my *equipment* question in ... let's see .. an *ANTENNA* ng.

You made your point. Just be glad you are smarter than other people.

- Mike -

# 3165. Re: smallest wire gauge for dipole: full kW?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-05 19:16:05 UTC
From: chuck <chuck@nospam.net>
Message-ID: <V7Jsd.5647$714.4365@newsread2.news.atl.earthlink.net>
Source record: 85762

Very nice, Tom.

Can we keep going with that?

Using the 8A dc assumption and the 40 ohm/1000 ft dc resistance of #26 AWG, we find that approximately 2.56 watts is dissipated in the first foot (less in subsequent feet). This assumes the current is linearly distributed in that foot.

To put it into intuitive perspective (not as neat as your proposed experiment, but a potential substitution of armchair hand-waving for actual work) we can say that the wire is dissipating about a quarter of a watt per inch near the center of the dipole.

Comparing that with the heat generated by a quarter watt resistor (at 1/4 watt dissipation)(larger diameter, shorter length) we are not likely to get 3rd degree burns from an incandescent antenna wire. Hi.

73,

Chuck

# 3166. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-05 19:49:32 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41b3644a_5@127.0.0.1>
Source record: 85764

Bart Rowlett wrote:
> A well
> versed practioneer is familiar with the various conventions commonly in
> use and will choose the one most appropriate to the problem at hand.

My point exactly, Bart. It is not up to me to define a new standard.

> Indeed they would. Who do you know who believes they are not
> transferring energy to their customers?

There are people who believe that energy being transferred past
a point in the transmission line is not power. However, the IEEE
dictionary says that power is the rate of generation, transfer,
or consumption of energy.
--
73, Cecil http://www.qsl.net/w5dxp

# 3167. Re: FS: sma-to-bnc custom fit rubber covered antenna adapter

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-05 19:49:45 UTC
From: Dave Bushong <db@9y.com>
Message-ID: <KpydnRuUA5zH-y7cRVn-og@adelphia.com>
Source record: 85763
Cross-posted to: rec.radio.swap,rec.radio.scanner,rec.radio.amateur.equipment,rec.radio.amateur.antenna

Me wrote:
> In article
> <dixon.8-FFF57F.124209011220004@charm.magnus.acs.ohio-state.edu>,
> Bob Dixon <dixon.8@osu.edu> wrote:
>
>
>>Adding any adaptor would seem to significantly move the radiating
>>portion of the antenna further away from the "ground plane" of the radio.
>>This should affect the operation of the antenna adversely. Comments?
>>
>>Bob
>>
>
>
> Adding an adapter to a Transmission Line will have no effect, except to
> add insertion loss of the adapter. Adding an adapter to the antenna
> itself MAY cause the antenna charactoristics to change. Most SMA and BNC
> connecters are used in Transmission Lines, and not antennas themselves.
> The OP doesn't really explain where the adapter is to be used. Most
> small handheld devices with external antenna connections have those
> connection in the Transmission Line and not in the antenna itself.
>
> Me

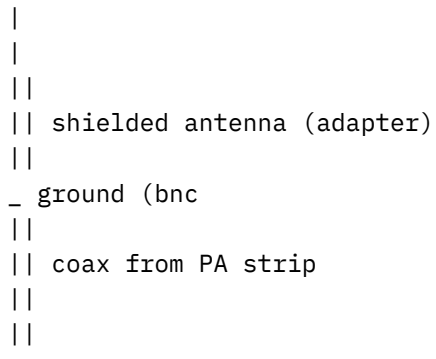
That is actually not quite true. On an HT, the transmission line ends
somewhere inside the radio. The SMA/BNC connector is part of the
antenna proper. If you add a sleeve (as the previous poster, "dixon",
says), you will be changing the antenna itself. ASCII schematic follows:

before:

```
|
| antenna
|
|
_ ground + bnc/sma
||
|| coax from PA strip
||
||
```

after

```
|
| antenna
```




And as we remember, "maximum radiation at the current maximum" (that is, the base of a classic 1/4 wave antenna), you are shielding the point of maximum radiation.

From a practical standpoint, you will probably be using a gain-retarded rubber duckie, and the 1 or 2 dB loss from even the worst adapter will be swamped by the -10 dB gain of the duck (that is "minus 10 dB gain"). The rubber-duck will make a 5 watt transmitter sound like a 1/2 watt one. Having another 1 dB of loss will make that 5-watt radio sound like 0.4 instead of 0.5. No big deal.

If you can keep your radio from being broken by using a quality adapter, and with a negligible loss in performance, I say, "do it."

If you are talking about squeaking out every last bit of signal, such as EME, the answer is "no". But if you are talking about walking around a hamfest on 2m, then spend a few extra bucks to keep from fracturing your antenna connector connection, which these days, most hams can't, or don't know how to, fix. <flames invited>

Your mileage may vary.

Dave
KZ1O

# 3168. Re: Dumb Question Dept. - Antenna Angle

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-05 19:54:13 UTC
From: Dave Bushong <db@9y.com>
Message-ID: <-5mdnWGe8Zr4-i7cRVn-hg@adelphia.com>
Source record: 85765

[lots snipped]
> I've used them. Don't feel bad, most of us have long forgotten
> trigonometry.

I remember the words to Alice Cooper's "18 and I like it" but I don't remember where I put my car keys yesterday.

Strangely, I do remember trig.

But isn't it great to ask a question on a newsgroup and get a bunch of great answers, instead of smart-aleck answers? I'm still reading them before I post a serious reply, regarding take-off angle, vs. antenna angle, and HAAT/HAG.

Good luck to you, Mr. President (the original poster, that is, Zachary Taylor).

73,
KZ1O

# 3169. Re: Dumb Question Dept. - Antenna Angle

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-05 19:58:20 UTC
From: Dave Bushong <db@9y.com>
Message-ID: <TNydnWLWnZXA9S7cRVn-rA@adelphia.com>
Source record: 85766

Zachary Taylor wrote:
>>On Sat, 27 Nov 2004 21:34:41 GMT, Zachary Taylor <zach56@bellsouth.net> wrote:
>
>
> [snip]
>
> I'd like to thank everyone for the good (and quick!) answers.
>
> This is a great group.
>
> P.S. I just looked up someone I heard on the CW contest. Check out
> his little antenna farm:
> http://andor.net/ve6jy/ve6jy-siteinfo.html
>
> And don't miss his little 80 meter yagi; it only weighs 1,200 pounds,
> and yes, it rotates:
> http://andor.net/ve6jy/ve6jy-80m.html
>
> I'm glad envy can't kill, or we'd all be dead men
>
> Zack

Zack,

Is that really your name (12th President of the US)? If you are a ham,
you aren't in QRZ.COM. Although there is one guy who lives on Zachary
Taylor Highway (KG4FUA).

Anyway, be sure that you update us how your experiments go, whether good
or bad. Don't make us re-invent the wheel.

73,
Dave

# 3170. Re: smallest wire gauge for dipole: full kW?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-05 20:04:18 UTC
From: Dave Bushong <db@9y.com>
Message-ID: <jcqdnR2xnoBZ9C7cRVn-pg@adelphia.com>
Source record: 85767

gibberdill wrote:
> I plan to use my 26 ga. 75 meter dipole (stealth antenna)-- now with 100 W--
> with my new amplifier, with 800-1000 W output. Is that too small a gauge?
> How much current can I expect it to take? Even if it doesn't get too hot,
> will it be significantly less efficient?
>
>

I've seen the other answers to this post, but no one asked this
question: why are you going to put a kW into a stealth antenna?

Before you do, you should do these three things: 1) be sure that you
have minimized all possible losses from your current antenna setup; 2)
be sure that you have a receiver that will pick a gnat out of the noise
(better use DSP), because you will be loud and everyone who answers you
will think you can hear them; 3) minimize any man-made noise sources in
your local area (sort of related to #2).

Remember, if you can't hear 'em, you can't work 'em.

All the best, and 73,
Dave
kz1o

# 3171. Re: Attach antenna to FM radio

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-05 20:08:47 UTC
From: Dave Bushong <db@9y.com>
Message-ID: <lPudndBZD_xM9y7cRVn-tA@adelphia.com>
Source record: 85768

Walt Stanley wrote:
> I need some help from you experts. I have a radio that uses the power
> cord as the antenna. I need a better antenna but have no idea where
> to add it. I don't know if just soldering a length of wire to the
> connection point of the ground wire would help or better to add a two
> wire antenna. I just don't know where to add the wires, if it is
> possible.
> TIA, Walt

Typically there is a metal clamp, either inside or outside the plastic case of the radio, around an inch long and 1/4" wide, that bolts to the power cord. This is a capacitive coupler. You can safely add a wire to that piece of metal, the wire being as long as you want. For FM broadcast, 5 or 6 feet should be adequate. Use an alligator clip instead of soldering (in case you change your mind later, or to avoid melting the power cord).

Email me directly if you want, and I will send you a JPG of what the one on my bedside clock looks like. It's old, but I doubt that it's changed much.

Dave

# 3172. Re: Test- Do not read

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-05 20:24:48 UTC
From: Dave Bushong <db@9y.com>
Message-ID: <XfidnR3kVesP8y7cRVn-pg@adelphia.com>
Source record: 85769

bapittman@gil.com.au wrote:
[nothing]

For future use, you can post to alt.test and no one will get annoyed.
That is the only reason for that newsgroup's existence.

No flames here, just mentioning it for what it's worth.

73,
kz1o

## 3173. Re: Is this jack wired correctly?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-05 20:32:38 UTC
From: Dave Bushong <db@9y.com>
Message-ID: <XfidnRzkVev77S7cRVn-pg@adelphia.com>
Source record: 85770

```
Mike Coslo wrote:
> drwxr-xr-x wrote:
>
>> On Thu, 02 Dec 2004 11:49:26 -0500, Ken hath writ:
>>
>>> On 2 Dec 2004 16:22:01 GMT, drwxr-xr-x <bit-bucket@config.com> wrote:
>>>
>>>> Nice antenna topic!
>>>
>>>
>>> You do have a point, but why waste the bandwith to respond -- if you
>>> don't have a helpful suggestion. It is at least a radio question.
>>
>>
>>
>> And, this ng does _not_ address radios.
>>
>>
>>> Your comment and the general lack of response did make me think to
>>> post it to sci.electronics.basics.
>>
>>
>>
>> Yes-sir-ee, Bob. When ever I have an *equipment* question, I would
>> never think to post it in a ng covering *equipment* (like
>> rec.radio.amateur._equipment_), where all the participants are focused
>> on discussing *equipment*. No, my brilliant choice would be to
>> post my *equipment* question in ... let's see .. an *ANTENNA* ng.
>
>
> You made your point. Just be glad you are smarter than other people.
>
> - Mike -
>

I agree with 755.
```

# 3174. Loft Antenna's

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-05 21:23:00 UTC
From: Simon Smith <s.Smith@btinternet.com>
Message-ID: <covu7j$dac$1@titan.btinternet.com>
Source record: 85771

Has anyone ever found an efficient loft antenna - one that really works on
all bands ?
John

# 3175. WTB IC-735 mobile bracket

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-05 21:35:37 UTC
From: K5VSE <k5vse@earthlink.net>
Message-ID: <JaLsd.2030$0r.1757@newsread1.news.pas.earthlink.net>
Source record: 85672
Cross-posted to: alt.ham-radio.hf,alt.ham-radio.marketplace,rec.ham-radio.swap,rec.radio.amateur.antenna

Hi to all,
Still looking for the mounting bracket to an Icom IC-735. Decided to go mobile again, and can't use my Glow in the Dark equipment.
Any help greatly appreciated.

Thanks
Mike/K5VSE

--
Formerly WB6VSE, Senior Tech, Amateur Div.
SBE/Linear Systems, Watsonville, CA
"Real Radios Glow in the Dark"

All email scanned with Norton Anti-Virus 2005
3922 nightly

# 3176. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-05 21:47:29 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <covvlh$qj3$1@sparta.btinternet.com>
Source record: 85673

Bart, I don't doubt that your description of how to calculate line loss is correct.

But it's more simple than that.

The input and output currents (or voltages) of any line are very rigid and well defined. Regardless of generator internal impedance. Just as a transformer's input and output currents and voltages are defined.

Their ratio is even more simply defined, albeit in complex terms.

So when the line input RESISTANCE, regardless of input reactance, and the terminating RESISTANCE, regardless of termiating reactance, are known then the power input to power output ratio is easily directly calculated from I squared R.

The hardest but still straightforward part of the calculation is for the input impedance, Rin+jXin, for given line attenuation and phase shift, and for given terminating impedance, Rt+jXt.

The power dissipated in the line, although distributed in a highly complex manner along its length due to standing waves, is very simply Pin - Pout.

Throughout the calculations, things like reflection coefficients and SWR do not appear, You cant use them as spin-off benefits. What practical use could you make of them anyway? The calculations have already been done, finished, ended, caput!
---
Reg.

# 3177. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-05 21:47:30 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <covvli$qj3$2@sparta.btinternet.com>
Source record: 85674

> Preach to those who need redemption
> and confine your comments along our technical interchanges to coin in
> kind.
>
> 73's
> Richard Clark, KB7QHC

==========
I am preaching to anybody who needs redemption.

It is YOU who are taking it personally despite me explicitly letting you off
the hook.

But Rich, it's very unlike you to take cover in "off topic". ;o)
---
Reg.

# 3178. Re: Loft Antenna's

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-05 22:28:06 UTC
From: jgboyles@aol.com
Message-ID: <20041205172806.00325.00001602@mb-m17.aol.com>
Source record: 85675

>Has anyone ever found an efficient loft antenna - one that really works on
>all bands ?

Hi John, Any antenna that is efficient on all bands outside your loft will perform about the same if you put it inside your loft. (maybe not verticals) There will be some changes due to the metal that will be present in your loft, but the efficiency will not suffer much.
The obvious problem is how to stuff the antenna into the limited space. The most efficient all band antenna that I know of that could fit is a 130' doublet fed with ladder line and a tuner. You may not have 130' available so you reduce it to 100' without much efficiency loss. You could zig-zag it to reduce the space needed even more.
This gets me to what I did. I have a 2 story house with a 40'x30' attic. I put 100' of wire up there, and fed it with ladder line and a tuner. Works well on 80m-10m. Works all the electronics in the house quite well.
73 Gary N4AST

# 3179. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-05 22:51:03 UTC
From: w9dmk@crosslink.net
Message-ID: <41b38fbc.6512204@news.crosslink.net>
Source record: 85676

On Sat, 04 Dec 2004 18:40:20 GMT, Richard Clark <kb7qhc@comcast.net>
wrote:

>On Sat, 04 Dec 2004 05:24:33 GMT, w9dmk@crosslink.net (Robert Lay
>W9DMK) wrote:
>
>>>Just today, I made a careful measurement on an RG-8/U line of 5.33
>>>meters length at 30 MHz and terminated with a 4700 + j 0 load. The
>>>Matched Line Loss of that line at 30 MHz is 0.9 dB per 100 feet, and
>>>its Velocity Factor is between 0.75 and 0.80 The input impedance was
>>>actually measured at 2.45 -j15 ohms for an SWR at the input of 22.25.
>>>The SWR at the load end was 94. Those two SWR's establish a total loss
>>>on the line of 0.15 dB. If one were to blindly apply the formula in
>>>The Antenna Book on page 24-9, the result obtained would be 4.323 dB.
>>>
>>Surprisingly, it was not until today that I finally made a computation
>>of the input power to the line for the configuration above.
>>Specifically, I was able to compute the voltage and current at the
>>input to the line that would produce a 100 volt reference voltage
>>across the 4700 ohm line. That is the obvious thing that had to be
>>done in order to establish a reference power for purposes of computing
>>losses. That calculation resulted in an applied voltage at the line
>>input of 29.2 volts at angle -171.5 degrees and a current of 1.917
>>amps at -90.78 degrees. Computing power into the line as E*Icos(theta)
>>= 9.024 watts. The power delivered to the load is 100 volts squared
>>divided by 4700 ohms, which is 2.127 watts.
>>
>>Therefore the efficiency is 23.6% and the losses in the line are 6.275
>>dB. In all fairness, I did have to change one assumption in the data
>>above. I had to revise my attenuation value of 0.9 dB per 100 ft.
>>upwards to a value of 1.72 dB per 100 ft. in order to get my measured
>>impedance at the line input to be consistent with that line impedance,
>>length, load value and velocity factor.
>
>Hi Bob,
>
>I notice that true to form, all the response in this thread were not
>to your bench results. I trust you will appreciate hard
>correspondence rather than the fluff.
>
>The one thing (actually there are several) I noted was your having to
>double the presumed line loss to make the numbers come out. Given
>this injection (or removal) of 100% (or %50) of error, it stands to

>reason that your bench, method or instruments need a attention.
>
>The details as I've sifted from the postings:
>Cable type = Columbia's number 1198 - not 9913.
>Open circuit stub length = 5.334 meters
>Frequency = 10.6 MHz,
>Input Z = 0.57 + j 0.3 ohms.
>
>The above details appear to have shifted in mid-stream to:
>Cable type = RG-8/U line
>stub length = 5.334 meters
>Frequency = 30.0 MHz,
>Open end termination = 4700 + j 0
>Input Z = 2.45 -j15
>
>I will skip the determinations of loss and SWR as being problematic as
>you indicate and simply go with your observations noted above, and
>summarized here:
>Open end Vtermination = 100V @ 0&#65533;
>Open end Itermination = 0.0213A @ 0&#65533;
>Fed end Vinput = 29.2V @ -171.5&#65533;
>Fed end Iinput = 1.917A @ -90.78&#65533;
>
>I was puzzled to see what was initially a resonant stub now measured
>with an extremely high Reactance until I re-scanned the material to
>note the tripling of frequency.
>
>What caught my eye was this load and certainly your leap of faith that
>it was wholly resistive, especially at HF for its size. This would be
>extremely unlikely even in a standards lab.
>
>To make a measurement, the rule of thumb is to have instrumentation
>whose precision and accuracy exceeds the goal of measuring an unknown
>by 5 to 10 times. For really difficult tests (and RF is classic in
>that regard) 3 times is often the best you can achieve.
>
>Let's look at that 4700 Ohm resistance. It demands that any
>instrumentation support a paralleling load of no less than 23.5K Ohms
>to 47K Ohms, or worst case, 14K Ohms. Let's simply ask about the
>family lineage of that 4700 Ohm resistance. It sounds suspiciously
>like a common (hopefully) carbon composition resistor.
>
>If so, such beasties are rare if it is of the commercial variety, to
>not exhibit reactances due to spiral cut value trimming, or an
>end-to-end capacitance. Let's just say that you obtained a remarkable
>resistor, but it cannot escape this common parasitic capacitance which
>for the garden variety resistor amounts to 1.5pF.
>
>At 30 MHz, this 1.5pF capacitance represents a reactance of 3.5K Ohm.

>This rather sweeps aside your specification for the load and replaces
>it with 4700 -j3537 Ohms. This is a big time source of error and does
>not even come close to the 3X requirement for the lowest accuracy.
>Worse yet, you haven't even added the bridging impedance of your
>measuring device which is certain to be on par, if not worse (you
>haven't identified your instrumentation).
>
>Hope you are still looking forward to more fun. ;-)
>
>73's
>Richard Clark, KB7QHC

Dear Richard,

New Measurements -

I created a terminating load consisting of 4 composition resistors in parallel. That measured 4.3 + j0.65 AT 20 MHz. I then measured the input impedance of the 5.33 meter length of RG-8/U Foam coax terminated with the 4.3 +j0.65 ohm load at 20 MHz, and that was 5 - j7.1 ohms. The SWR at the load is 11.63 and the SWR at the input is 9.88.

Using a velocity factor of 0.745 and an attenuation value of .77, I calculated the theoretical input impedance of the coax with the above terminator. That gave a result of 5.17 - j7.3 ohms (theoretical). The SWR at the load is 11.63, and the SWR at the input to the line is 9.88 (theoretical).

In setting up the simulation, it is necessary to pick an attenuation and a velocity factor that are not only within the normal distribution for that particular coax but also give a reasonably good match with the measured values. In my opinion, the values that I used in the simulation are well within the normal distribution of values for this type of line, which has published values of VF=.8 and attenuation = 74 at 20 MHz.

The simulation also predicts the losses, and I used two different models for that calculation. Both loss models predict a total loss of 0.723 dB, which is 0.589 above the matched line losses based on the normal attenuation. The two math models used were as follows:

1) ITT Reference Data for Radio Engineers, 5th Edition, pages 22-8 and 22-9.

2) The ARRL Antenna Book, 17th Edition, page 24-9.

Based on the limited tests that I have made so far, the two models seem to give the same results. However, I am hoping to be able to conduct measurements on configurations that involve much higher SWR values. The immediate problem to be overcome is the measurement of such impedance values as will be encountered.
Bob, W9DMK, Dahlgren, VA

http://www.qsl.net/w9dmk

# 3180. Re: smallest wire gauge for dipole: full kW?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-05 23:06:40 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cp04a0$n53$1@titan.btinternet.com>
Source record: 85677

It depends on whether you are in Alaska, in mid-winter, at midnight, or in New Mexico, at midsummer, at noon.

The temperature rise will not do any damage, not even to birds. The reduction in efficiency due to increase in wire resistance will be insignificant. Think in terms of 0.001 S-units.

Just turn up the powe to 1 KW and see what happens, if anything. It won't fall down. The antenna length might increase by some fraction of one percent due to thermal expansion. But your tuner will not notice any difference. The difference is about the same as that between summer and winter,

Remenber that the wire has a very great surface area, over a length of many feet, to dissipate the amtenna losses - and in a cooling breeze. It/s only the relatively small antenna losses, roughly 100 watts, which have to be dissipated - not the full 1000 watts.

Most of the loss and temperature rise occurs in the middle half of the antenna. It is calculable but not worth the trouble. If it is enamelled magnet wire the enamel will probably not be affected. Enamell is accustomed to being in prolonged warm places.

The probability of doing any damage to anybody's property is less than winning the national lottery with only one ticket. You may consider making your antenna even more stealthy.

In general, the diameter of antenna wires is decided only on the grounds of durability in adverse weather conditions. Here in the UK we are quite fortunate - until Earth Warming tornados become more frequent.
---
Reg, G4FGQ.

# 3181. Re: Icom TS-50

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-06 00:19:53 UTC
From: SideBand <AINO8SPAMW@cac.net>
Message-ID: <JANsd.39624$Qv5.28932@newssvr33.news.prodigy.com>
Source record: 85678

Simon Smith wrote:
> I am soon to take the Foundation licence test and I'm considering either an
> Icom TS50 or the Icom IC - 703.
> I dony know enough yet to come to a decision - What in the opinion of the
> newsgroup would be a wise choice for a complete Novice ?
> I realise the learning will continue AFTER I get the pass certificate - but
> I dont want to make an expensive mistake before I even get started....
> Any help would be most welcome....
> John
>
>
I'd go with the 706MkIIG... the 703 is a QRP rig with a max output of 10
watts.

The TS50 is older tech, but still a decent rig. I run a 706MkIIG in my
semi, and have had no problems with the rig at all..

Antennas and tuners are a different story, though...

73 de AI8W, Chris

# 3182. Re: Dumb Question Dept. - Antenna Angle

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-06 00:22:40 UTC
From: SideBand <AINO8SPAMW@cac.net>
Message-ID: <kDNsd.39625$Qv5.7175@newssvr33.news.prodigy.com>
Source record: 85679

Ian Jackson wrote:
>
>>
>>
>> SOH CAH TOA
>>
>> Sin = Opposite over Hypotenuse
>> Cos = Adjacent over Hypotenuse
>> Tan = Opposite over Adjacent
>
>
> Some People Have (sin = perpendicular/hypotenuse)
> Curly Black Hair (cosine = base/hypotenuse)
> Though Painted Brown (tangent = perpendicular/base)
> I've never forgotten it.
> Ian.
Another great way to remember it..

It was beat into me by a Jr High Teacher, and I've just never forgotten
it this way... The Indian Chief SohCahToa...

73 de AI8W, Chris

# 3183. Re: Trucker babe antenna topper

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-06 00:24:30 UTC
From: SideBand <AINO8SPAMW@cac.net>
Message-ID: <2FNsd.39626$Qv5.2716@newssvr33.news.prodigy.com>
Source record: 85680

Nana Gina wrote:
> I have searched all the sites and can NOT find an antenna topper that
> has the trucker babe/mud flap girl on it.If ANYONE can link me to
> anybody selling them please do! My addy is GinaJ45@hotmail.com
> Thanks!
>
Try searching for "Sitting Lady".. That's what they're called.

I should know, being a trucker myself.

AI8W = A 18 W = An 18 Wheeler....

That's why I picked it for my Vanity call.. ::grin::

73 de AI8W, Chris

# 3184. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-06 01:05:54 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <0k87r0p8vl4r6bb1uk02i9pnjgjm1jrahe@4ax.com>
Source record: 85681

On Sun, 05 Dec 2004 22:51:03 GMT, w9dmk@crosslink.net (Robert Lay
W9DMK) wrote:

>New Measurements -
>
>I created a terminating load consisting of 4 composition resistors in
>parallel. That measured 4.3 + j0.65 AT 20 MHz.

I threw together two Allen Bradley 10 Ohm 5% 1/4 Watt resistors and
came up with 5.1 -j0.5 in a quick test at 20 MHz.

>I then measured the
>input impedance of the 5.33 meter length of RG-8/U Foam coax
>terminated with the 4.3 +j0.65 ohm load at 20 MHz, and that was 5 -
>j7.1 ohms. The SWR at the load is 11.63 and the SWR at the input is
>9.88.
>
>Using a velocity factor of 0.745 and an attenuation value of .77, I
>calculated the theoretical input impedance of the coax with the above
>terminator. That gave a result of 5.17 - j7.3 ohms (theoretical). The
>SWR at the load is 11.63, and the SWR at the input to the line is 9.88
>(theoretical).
>
>In setting up the simulation, it is necessary to pick an attenuation
>and a velocity factor that are not only within the normal distribution
>for that particular coax but also give a reasonably good match with
>the measured values. In my opinion, the values that I used in the
>simulation are well within the normal distribution of values for this
>type of line, which has published values of VF=.8 and attenuation =
>74 at 20 MHz.

Hi Bob,

I would say that your data shows a very good correlation to the models
and certainly the presumptions you made are well within the production
variables.

>The simulation also predicts the losses, and I used two different
>models for that calculation. Both loss models predict a total loss of
>0.723 dB, which is 0.589 above the matched line losses based on the
>normal attenuation. The two math models used were as follows:
>
>1) ITT Reference Data for Radio Engineers, 5th Edition, pages 22-8 and
>22-9.
>
>2) The ARRL Antenna Book, 17th Edition, page 24-9.

>
>Based on the limited tests that I have made so far, the two models
>seem to give the same results. However, I am hoping to be able to
>conduct measurements on configurations that involve much higher SWR
>values. The immediate problem to be overcome is the measurement of
>such impedance values as will be encountered.

Measure Q by the BW of the Half Power points.

73's
Richard Clark, KB7QHC

## 3185. Re: Open wire source?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-06 01:34:35 UTC
From: t_ashland@yahoo.com
Message-ID: <6e6aeba9.0412051734.6f2c1f27@posting.google.com>
Source record: 85682

I'm just the opposite. I'm not lazy, just cheap! What have you used
for open wire feeders for 100 watts or less?
Terry, WK0F

"Bob P" <nospam@nospam.end> wrote in message news:<ArKdnd9Y_oNo0S3cRVn-gw@comcast.com>...
> Anyone know of any outfits selling open wire line?
> I know how to homebrew it, just too lazy.
> Bob
> kb8tl / at / yahoo / dot / com

# 3186. Re: Open wire source?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-06 15:02:12 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41b47277$1_4@127.0.0.1>
Source record: 85683

Terry Ashland wrote:
> I'm just the opposite. I'm not lazy, just cheap! What have you used
> for open wire feeders for 100 watts or less? Terry, WK0F

You can roll your own. Wire is cheap at Lowe's and Home Depot.
Insulators can be pieces of plastic irrigation tubing, also
cheap.
--
73, Cecil http://www.qsl.net/w5dxp

# 3187. Question re: running balanced line

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-06 16:22:19 UTC
From: "JimK2TL@gmail.com" <JimK2TL@gmail.com>
Message-ID: <1102350139.889199.151140@f14g2000cwb.googlegroups.com>
Source record: 85684

Greetings
I have been using balanced line for many years and am convinced of its virtues, particularly since I use a single tuned doublet for multiband use.
The question I have never been able to get a clear answer on is this; How critical is it for the balanced line to avoid metal objects? Specifically, I now use about 6 feet of LMR 400 coax from a Radio Works remote balun into my shack where I tune the antenna from either a manual tuner or the auto tuner in my FT920. In order for me to run the twinlead all the way into the shack there will be about 18 inches where the twinlead will share a portal that I constructed to get my grounds and other cables in and out of the shack. Now I always thought this was a problem area for twinlead, hence the use of the remote balun.
I am considering the purchase of a new tuner and was thinking I would like a Palstar Balanced Tuner. But can I use it? Would I be better of with a T match and a short length of coax to a balun, or would a balanced tuner be better even with the 18" or so of twinlead coming in close proximity to the other conductors?
I really can not bring the twinlead in without it crossing paths as I desribed.
Is a balanced tuner all that better than a T match anyway in terms of antenna performance or loss?
What say?
Thanks

# 3188. Re: Question re: running balanced line

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-06 17:06:16 UTC
From: Bob Miller <rmiller47@satx.rr.com>
Message-ID: <nf39r09b2u0g267ve22mgm7v19ah5bocs8@4ax.com>
Source record: 85685

On 6 Dec 2004 08:22:19 -0800, "JimK2TL@gmail.com" <JimK2TL@gmail.com>
wrote:

>Greetings
>I have been using balanced line for many years and am convinced of its
>virtues, particularly since I use a single tuned doublet for multiband
>use.
>The question I have never been able to get a clear answer on is this;
>How critical is it for the balanced line to avoid metal objects?
>Specifically, I now use about 6 feet of LMR 400 coax from a Radio Works
>remote balun into my shack where I tune the antenna from either a
>manual tuner or the auto tuner in my FT920. In order for me to run the
>twinlead all the way into the shack there will be about 18 inches where
>the twinlead will share a portal that I constructed to get my grounds
>and other cables in and out of the shack. Now I always thought this
>was a problem area for twinlead, hence the use of the remote balun.
>I am considering the purchase of a new tuner and was thinking I would
>like a Palstar Balanced Tuner. But can I use it? Would I be better of
>with a T match and a short length of coax to a balun, or would a
>balanced tuner be better even with the 18" or so of twinlead coming in
>close proximity to the other conductors?
>I really can not bring the twinlead in without it crossing paths as I
>desribed.
>Is a balanced tuner all that better than a T match anyway in terms of
>antenna performance or loss?
>What say?
>Thanks

I've tried it both ways: bringing the ladderline to a coiled coax
balun at the window, with coax coming into the shack; and I've tried
bringing the ladderline directly into the shack.

I'm currently doing the latter -- the ladderline comes through the
wood-frame window opening (with a towel and toilet paper plugging up
the air gap), it then passes within 2 or 3 inches of a couple other
cables, and finally goes to the 4:1 balun on my Tmatch tuner. That
seems to work well. I think you have to just experiment and see what
works with each particular antenna.

bob
k5qwg

# 3189. Re: Question re: running balanced line

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-06 17:38:02 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <5q59r09gqno8ffp8t9skaai92pct78dl68@4ax.com>
Source record: 85686

On 6 Dec 2004 08:22:19 -0800, "JimK2TL@gmail.com" <JimK2TL@gmail.com>
wrote:
>Is a balanced tuner all that better than a T match anyway in terms of
>antenna performance or loss?

Hi Jim,

I've seen reports of "better tuners" equipped with fans - take warning
that this would be a contradiction of claims and features.

What you fail to discuss is what is motivating you to make this
change? Do you perceive your tuner heating up? Does it fail to tune
your antenna? Are you having problems with Common Mode currents? Are
you bored with the current arrangement?

73's
Richard Clark, KB7QHC

# 3190. Re: Question re: running balanced line

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-06 17:52:42 UTC
From: "JimK2TL@gmail.com" <JimK2TL@gmail.com>
Message-ID: <1102355562.033632.58660@c13g2000cwb.googlegroups.com>
Source record: 85687

Hello
Well, what concerns me is that I may not have things working as well as they could be. I'm not having any problems and in fact this system works out quite well. I have read that a remote balun and coax will work, and it does, but going direct to a balanced tuner is better. But how much better? Is it worth the effort and expense? I'm satisfied that the LMR400 and Radio Works balun are as low loss as I can get for this kind of system, but I can never leave well enough alone if I think there is room for improvement.
Thanks

# 3191. Re: Question re: running balanced line

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-06 17:53:00 UTC
From: "JimK2TL@gmail.com" <JimK2TL@gmail.com>
Message-ID: <1102355580.907873.60240@c13g2000cwb.googlegroups.com>
Source record: 85688

Hello
Well, what concerns me is that I may not have things working as well as they could be. I'm not having any problems and in fact this system works out quite well. I have read that a remote balun and coax will work, and it does, but going direct to a balanced tuner is better. But how much better? Is it worth the effort and expense? I'm satisfied that the LMR400 and Radio Works balun are as low loss as I can get for this kind of system, but I can never leave well enough alone if I think there is room for improvement.
Thanks

# 3192. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-06 18:03:47 UTC
From: w9dmk@crosslink.net
Message-ID: <41b49d09.7779666@news.crosslink.net>
Source record: 85689

On Mon, 06 Dec 2004 01:05:54 GMT, Richard Clark <kb7qhc@comcast.net>
wrote:

>On Sun, 05 Dec 2004 22:51:03 GMT, w9dmk@crosslink.net (Robert Lay
>W9DMK) wrote:
>
>>New Measurements -
>>
>>I created a terminating load consisting of 4 composition resistors in
>>parallel. That measured 4.3 + j0.65 AT 20 MHz.
>
>I threw together two Allen Bradley 10 Ohm 5% 1/4 Watt resistors and
>came up with 5.1 -j0.5 in a quick test at 20 MHz.
>
>>I then measured the
>>input impedance of the 5.33 meter length of RG-8/U Foam coax
>>terminated with the 4.3 +j0.65 ohm load at 20 MHz, and that was 5 -
>>j7.1 ohms. The SWR at the load is 11.63 and the SWR at the input is
>>9.88.
>>
>>Using a velocity factor of 0.745 and an attenuation value of .77, I
>>calculated the theoretical input impedance of the coax with the above
>>terminator. That gave a result of 5.17 - j7.3 ohms (theoretical). The
>>SWR at the load is 11.63, and the SWR at the input to the line is 9.88
>>(theoretical).
>>
>>In setting up the simulation, it is necessary to pick an attenuation
>>and a velocity factor that are not only within the normal distribution
>>for that particular coax but also give a reasonably good match with
>>the measured values. In my opinion, the values that I used in the
>>simulation are well within the normal distribution of values for this
>>type of line, which has published values of VF=.8 and attenuation =
>>74 at 20 MHz.
>
>Hi Bob,
>
>I would say that your data shows a very good correlation to the models
>and certainly the presumptions you made are well within the production
>variables.
>
>>The simulation also predicts the losses, and I used two different
>>models for that calculation. Both loss models predict a total loss of
>>0.723 dB, which is 0.589 above the matched line losses based on the
>>normal attenuation. The two math models used were as follows:

>>
>>1) ITT Reference Data for Radio Engineers, 5th Edition, pages 22-8 and
>>22-9.
>>
>>2) The ARRL Antenna Book, 17th Edition, page 24-9.
>>
>>Based on the limited tests that I have made so far, the two models
>>seem to give the same results. However, I am hoping to be able to
>>conduct measurements on configurations that involve much higher SWR
>>values. The immediate problem to be overcome is the measurement of
>>such impedance values as will be encountered.
>
>Measure Q by the BW of the Half Power points.
>
>73's
>Richard Clark, KB7QHC

Dear Richard,

I finally created a test load that gives me the higher SWR that I
wanted.
It measures 7.0 - j2008 at 1.8 MHz. I placed that test load at the end
of a 150 foot piece of RG-59/U and measured the input impedance as
38.5 + j 151.6 at 1.8 MHz. The load SWR is 7901 and the input SWR is
10.18.

Solution of the transmission line equations for this particular load
and with coax characteristics of 73 ohms, VF = .646 and an attenuation
of 0.57 dB per 100 feet gives an input impedance of 38.67 + j 149,
which is a very good match to the measured value.

Losses are calculated using the same two methods as reported in my
previous posting, as follows:
1) ITT Reference Data for Radio Engineers, 5th Edition, pages 22-8 and
22-9.

2) The ARRL Antenna Book, 17 th Edition, page 24-9.

Matched line losses = 0.855 dB
Additional losses = 28.087 dB
Total losses = 28.942 dB

I am satisfied that the methods of calculating losses as described in
the two references are in agreement and are valid.

I am also reasonably satisfied that the 1 dB steps that are printed on
Smith Charts as the means of determining matched line losses are
valid, as are the nomograms provided in the ITT Handbook, pages 22-7
and 22-8, above.

73,
Bob, W9DMK, Dahlgren, VA
http://www.qsl.net/w9dmk

# 3193. Re: FS: sma-to-bnc custom fit rubber covered antenna adapter

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-06 18:23:51 UTC
From: Me <Me@shadow.orgs>
Message-ID: <Me-292CAC.09240206122004@netnews.worldnet.att.net>
Source record: 85690
Cross-posted to: rec.radio.swap,rec.radio.scanner,rec.radio.amateur.equipment,rec.radio.amateur.antenna

In article <KpydnRuUA5zH-y7cRVn-og@adelphia.com>,
Dave Bushong <db@9y.com> wrote:

> That is actually not quite true. On an HT, the transmission line ends
> somewhere inside the radio. The SMA/BNC connector is part of the
> antenna proper. If you add a sleeve (as the previous poster, "dixon",
> says), you will be changing the antenna itself. ASCII schematic follows:
>
> before:

I have been in the communications field for 35 years, and I have NEVER
seen a SMA/BNC antenna connector on a Handheld Radio that didn't
have a the RF Ground connected to the ground side of the connector.
there are some that use different antenna connectors than SMA/TNC?BNC
that are singleended but I have never seen one used that way.
CFR (Call for Rference) Tell us all which radios your talking about.
Make, Model, Version.

Me

# 3194. Re: Question re: running balanced line

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-06 18:36:49 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <5F1td.2317$nE7.1037@newssvr17.news.prodigy.com>
Source record: 85691

Jim,
The differences between the two 'ways' can be fairly large. But, on the whole, I honestly doubt if you would 'see' any difference in performance. Running balanced lines near 'stuff' isn't as big a 'problem' as most people think. If you can stay away from things, fine. If not, then try to stay as far away as possible, and keep the proximity of the balanced line to other things 'symetrical' (if that makes sence), both conductors an equal distance from the other stuff.
'Doc

PS - If the idea is to try something different or new, have at it!

# 3195. Re: Question re: running balanced line

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-06 19:14:18 UTC
From: k9sqg@aol.com
Message-ID: <20041206141418.00362.00001517@mb-m17.aol.com>
Source record: 85692

Jim,

Well, let me say this...

I've run window line for years, and will be switching to open wire line, in part, next year. In a test that I did about 7 years ago, I ran a 1 ft section of window line across a metal flourescent light fixture, laying right on it. I could measure no change in SWR and no change in signal strengths using a 40 m horizontal loop on 40 m. I'd recommend running a test if possible and see if it makes a difference.

Right now, I run an 80 m loop and run window line all the way to the tuner in the shack. Only metal is about a foot away, water pipes and heating ducts that parallel the feedline for about 25 feet. It works so if there is a problem, it might not be severe and I'm willing to live with it, hi.

73s,

Evan

# 3196. Re: Question re: running balanced line

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-06 19:16:48 UTC
From: Lee Hopper <leehopp@centurytel.net>
Message-ID: <41B4B020.1080807@centurytel.net>
Source record: 85693

JimK2TL@gmail.com wrote:
...I can never leave well enough alone...

Hi, Jim -

I know the feeling!

How about a *remote autotuner* that you can build yourself? Sound like a good winter project? Browse on over to <http://www.ldgelectronics.com/index.html> and check out the RT-11.

Best -

Lee H, NB7F

# 3197. Re: Question re: running balanced line

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-06 19:24:02 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <7bb9r0ll80v7j3t23vf3q09c3rn8im4v7g@4ax.com>
Source record: 85694

On 6 Dec 2004 09:53:00 -0800, "JimK2TL@gmail.com" <JimK2TL@gmail.com>
wrote:

>But how much better?

Hi Jim,

Probably not enough for you to notice.

>Is it worth the effort and expense?

Worth is subjective, even if you feel good about, but discern no
evidence of improvement in performance, that may be sufficient.

>I'm satisfied
>that the LMR400 and Radio Works balun are as low loss as I can get for
>this kind of system, but I can never leave well enough alone if I think
>there is room for improvement.

As Doc suggests, goferit. Bob's advice is not uncommon either,
although absorbent material could get damp and affect local line
performance. The question then becomes one of our academic knot
twisters in that would it matter. Myself, I see a potential short
across the line and tender nearby to support combustion or smoldering.

To solve my 15X15 inch basement window problem, I replaced the plate
glass with Plexiglas and drilled holes with abandon. This replacement
was not without taking so long a time that my buddy lost his patience:
"Just bust that $5 worth of glass out!" Instead, I had to do this by
carefully removing the petrified putty all around - and cracked the
pane in the last nip. Care and precision is not always worth the
effort.

73's
Richard Clark, KB7QHC

# 3198. Re: Question re: running balanced line

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-06 19:48:32 UTC
From: "JimK2TL@gmail.com" <JimK2TL@gmail.com>
Message-ID: <1102362512.844320.317990@f14g2000cwb.googlegroups.com>
Source record: 85695

I considered a remote tuner and did in fact use the RT-11 for a couple
of years. It worked, but it was a bit troublesome. What I am doing
now is far better.
One of the things I have learned about autotuners is that they all seem
to have a higher insertion loss than a good manual tuner. Probably
due to the toroids, fixed caps, and relays they use. Good airwound
coils and variable caps are less lossy. So using an autotuner may be
convenient, but I have seen insertion loss figures as high as 65%
under some mismatch conditions!..
I can live with my current system, and it works just great. But since
I am in the market for a new tuner, I just wanted to know if I should
go T match or balanced, as I originally stated.
Thanks for all the feedback!
Jim

# 3199. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-06 19:57:34 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <5dc9r0lbmo6pust13prk2ec9odof3nmqih@4ax.com>
Source record: 85696

On Mon, 06 Dec 2004 18:03:47 GMT, w9dmk@crosslink.net (Robert Lay W9DMK) wrote:

>I finally created a test load that gives me the higher SWR that I
>wanted.
>It measures 7.0 - j2008 at 1.8 MHz. I placed that test load at the end
>of a 150 foot piece of RG-59/U and measured the input impedance as
>38.5 + j 151.6 at 1.8 MHz. The load SWR is 7901 and the input SWR is
>10.18.
>
>Solution of the transmission line equations for this particular load
>and with coax characteristics of 73 ohms, VF = .646 and an attenuation
>of 0.57 dB per 100 feet gives an input impedance of 38.67 + j 149,
>which is a very good match to the measured value.
>
>Losses are calculated using the same two methods as reported in my
>previous posting, as follows:
>1) ITT Reference Data for Radio Engineers, 5th Edition, pages 22-8 and
>22-9.
>
>2) The ARRL Antenna Book, 17 th Edition, page 24-9.
>
>
>Matched line losses = 0.855 dB
>Additional losses = 28.087 dB
>Total losses = 28.942 dB
>
>I am satisfied that the methods of calculating losses as described in
>the two references are in agreement and are valid.
>
>I am also reasonably satisfied that the 1 dB steps that are printed on
>Smith Charts as the means of determining matched line losses are
>valid, as are the nomograms provided in the ITT Handbook, pages 22-7
>and 22-8, above.

Hi Bob,

Congratulations are in order for your effort at the bench, regardless of outcome.

Congratulations are in order for your chain of reasoning, your attention to detail, and the obvious refinement of technique that is now agreeing not only with references, but is also consistent from one test to the next.

I still see some aberration in the data when you have to drive the cable Z to 73 Ohms to make the formulas work. It shows that the generality of the references is good, but with the instance of your data is a forced conclusion. I don't find that particularly upsetting as the accumulation of error could easily account for some of the differences.

You might want to revisit some of Bart's offerings in this thread; especially his discussion of the effect of Low-R loads as a source of Hi-Z, Hi-SWR.

73's
Richard Clark, KB7QHC

# 3200. Re: Question re: running balanced line

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-06 22:02:37 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41b4d524$1_5@127.0.0.1>
Source record: 85697

JimK2TL@gmail.com wrote:
> Greetings
> I have been using balanced line for many years and am convinced of its
> virtues, particularly since I use a single tuned doublet for multiband
> use.

The key to using balanced line is to know what impedance you are dealing with looking into the feedline. If it's too high, baluns don't work. If it's too low, tuners don't work. You can always measure the impedance but I have found that EZNEC gives a close enough approximation to the feedpoint impedance that you don't really need to measure it. Some of the principles are explained on my web page under "No-Tuner All-HF-Band-Antenna".
--
73, Cecil http://www.qsl.net/w5dxp

# 3201. Re: Open wire source?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-06 22:10:18 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41b4d6c5_5@127.0.0.1>
Source record: 85698

Edmund H. Ramm wrote:
> Extreme sensitivity to rainwater for one. Don't rely on my word,
> take the time to read above mentioned article by Wes Stewart.

Didn't Wes use tap water and Joy detergent laying on a wooden deck?
Or was that Roy? If they had submerged the ladder-line in salt water,
it could have been even worse. :-) If the ladder-line is vertical, rain
water has very little effect according to my measurements (which I have
never published).
--
73, Cecil http://www.qsl.net/w5dxp

# 3202. Re: Question re: running balanced line

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-06 22:14:08 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41b4d7ac$1_5@127.0.0.1>
Source record: 85699

JimK2TL@gmail.com wrote:
> One of the things I have learned about autotuners is that they all seem
> to have a higher insertion loss than a good manual tuner.

The lowest loss is no tuner at all! Let the transmission line do the
tuning. How to accomplish that is covered on my web page under, "No-
Tuner All-HF-Band Antenna".
--
73, Cecil http://www.qsl.net/w5dxp

# 3203. Re: Open wire source?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-06 22:17:30 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10r9mjv1qokh276@corp.supernews.com>
Source record: 85700

My measurements, posted on this newsgroup some time ago and also published in QST's Technical Correspondence even longer ago, were for 300 ohm TV twinlead. The line was not lying on a wooden deck, nor did the measurements involve detergent of any kind.

Roy Lewallen, W7EL

Cecil Moore wrote:
> Edmund H. Ramm wrote:
>
>> Extreme sensitivity to rainwater for one. Don't rely on my word,
>> take the time to read above mentioned article by Wes Stewart.
>
>
> Didn't Wes use tap water and Joy detergent laying on a wooden deck?
> Or was that Roy? If they had submerged the ladder-line in salt water,
> it could have been even worse. :-) If the ladder-line is vertical, rain
> water has very little effect according to my measurements (which I have
> never published).
> --
> 73, Cecil http://www.qsl.net/w5dxp

# 3204. Re: Open wire source?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-06 22:22:58 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41b4d9be$1_2@127.0.0.1>
Source record: 85702

Roy Lewallen wrote:
> My measurements, posted on this newsgroup some time ago and also
> published in QST's Technical Correspondence even longer ago, were for
> 300 ohm TV twinlead. The line was not lying on a wooden deck, nor did
> the measurements involve detergent of any kind.

Who was it who published loss data based on laying the ladder-line
on a wooden deck and/or squirting a wetting agent on it? Did you
use a wetting agent?
--
73, Cecil http://www.qsl.net/w5dxp

# 3205. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-06 22:25:03 UTC
From: w9dmk@crosslink.net
Message-ID: <41b4dbba.5764008@news.crosslink.net>
Source record: 85701

On Mon, 06 Dec 2004 19:57:34 GMT, Richard Clark <kb7qhc@comcast.net>
wrote:

>On Mon, 06 Dec 2004 18:03:47 GMT, w9dmk@crosslink.net (Robert Lay
>W9DMK) wrote:
>
>>I finally created a test load that gives me the higher SWR that I
>>wanted.
>>It measures 7.0 - j2008 at 1.8 MHz. I placed that test load at the end
>>of a 150 foot piece of RG-59/U and measured the input impedance as
>>38.5 + j 151.6 at 1.8 MHz. The load SWR is 7901 and the input SWR is
>>10.18.
>>
>>Solution of the transmission line equations for this particular load
>>and with coax characteristics of 73 ohms, VF = .646 and an attenuation
>>of 0.57 dB per 100 feet gives an input impedance of 38.67 + j 149,
>>which is a very good match to the measured value.
>>
>>Losses are calculated using the same two methods as reported in my
>>previous posting, as follows:
>>1) ITT Reference Data for Radio Engineers, 5th Edition, pages 22-8 and
>>22-9.
>>
>>2) The ARRL Antenna Book, 17 th Edition, page 24-9.
>>
>>
>>Matched line losses = 0.855 dB
>>Additional losses = 28.087 dB
>>Total losses = 28.942 dB
>>
>>I am satisfied that the methods of calculating losses as described in
>>the two references are in agreement and are valid.
>>
>>I am also reasonably satisfied that the 1 dB steps that are printed on
>>Smith Charts as the means of determining matched line losses are
>>valid, as are the nomograms provided in the ITT Handbook, pages 22-7
>>and 22-8, above.
>
>Hi Bob,
>
>Congratulations are in order for your effort at the bench, regardless
>of outcome.
>
>Congratulations are in order for your chain of reasoning, your

>attention to detail, and the obvious refinement of technique that is
>now agreeing not only with references, but is also consistent from one
>test to the next.
>
>I still see some aberration in the data when you have to drive the
>cable Z to 73 Ohms to make the formulas work. It shows that the
>generality of the references is good, but with the instance of your
>data is a forced conclusion. I don't find that particularly upsetting
>as the accumulation of error could easily account for some of the
>differences.
>
>You might want to revisit some of Bart's offerings in this thread;
>especially his discussion of the effect of Low-R loads as a source of
>Hi-Z, Hi-SWR.
>
>73's
>Richard Clark, KB7QHC

Dear Richard,

No - I didn't. That was a surprise to me, too! The specs on RG-59/U say 73 ohms. There are 2 other RG-59 types - RG-59 Foam (75 ohms) and RG-59A, also 73 ohms.

C'est la Guerre!

73,

Bob, W9DMK, Dahlgren, VA
http://www.qsl.net/w9dmk

# 3206. Re: FS: sma-to-bnc custom fit rubber covered antenna adapter

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-06 22:55:40 UTC
From: Dave Bushong <db@9y.com>
Message-ID: <R9GdnUdDnsvwfincRVn-qA@adelphia.com>
Source record: 85703
Cross-posted to: rec.radio.swap,rec.radio.scanner,rec.radio.amateur.equipment,rec.radio.amateur.antenna

Me wrote:
> In article <KpydnRuUA5zH-y7cRVn-og@adelphia.com>,
> Dave Bushong <db@9y.com> wrote:
>
>
>>That is actually not quite true. On an HT, the transmission line ends
>>somewhere inside the radio. The SMA/BNC connector is part of the
>>antenna proper. If you add a sleeve (as the previous poster, "dixon",
>>says), you will be changing the antenna itself. ASCII schematic follows:
>>
>>before:
>
>
> I have been in the communications field for 35 years, and I have NEVER
> seen a SMA/BNC antenna connector on a Handheld Radio that didn't
> have a the RF Ground connected to the ground side of the connector.
> there are some that use different antenna connectors than SMA/TNC?BNC
> that are singleended but I have never seen one used that way.
> CFR (Call for Rference) Tell us all which radios your talking about.
> Make, Model, Version.
>
>
> Me

You missed my point, I think. The counterpoise is the (poor) metal of
the radio and of the user's hand. Any connector/adapter will be coaxial
and probably low loss, but the counterpoise stays put. The feedpoint
rises but the "ground" plane does not. For an SMA adapter, it might not
be enough to hear a difference, but the radiated signal will be worse
when using such an adapter.

73,
Dave

# 3207. Re: Question re: running balanced line

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-06 23:31:58 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cp2q5e$7kt$1@hercules.btinternet.com>
Source record: 85704

Cecil, what tests, measurements or calculations have you made to satisfy
yourself that loss in the feedline is no greater than in the tuner the
feedline replaces?
----
Reg.

========================================

"Cecil Moore" wrote
> How to accomplish that is covered on my web page under, "No-
> Tuner All-HF-Band Antenna".

# 3208. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-06 23:36:13 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <daq9r0hetugsnt4pjidmphmmrqoj6tt2k3@4ax.com>
Source record: 85705

On Mon, 06 Dec 2004 22:25:03 GMT, w9dmk@crosslink.net (Robert Lay W9DMK) wrote:

>No - I didn't. That was a surprise to me, too! The specs on RG-59/U
>say 73 ohms. There are 2 other RG-59 types - RG-59 Foam (75 ohms) and
>RG-59A, also 73 ohms.

Hi Bob,

You are, in the expression common here in the NW, whipsawing me with your changes in cable type. I failed to catch that in your post.

Given you are using 73 Ohm line, your results are very remarkable. I'm glad you've gone the distance. This group, however, exhibits a very odd ethic that I would call the reverse Little Red Hen story.

Through more than 150 postings they all want to offer advice on how to cut the grain; they will tell you where to mill it into flour; they will offer you recipes on what to bake; but none seem to be around to praise the chef or the cake.

73's
Richard Clark, KB7QHC

## 3209. Celebrations !!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-07 00:12:00 UTC
From: Simon Smith <s.Smith@btinternet.com>
Message-ID: <cp2sgg$ktu$1@sparta.btinternet.com>
Source record: 85706

I took my foundation license and morse exam to-day, and both were
sucessful.
All I have to do now is to: choose a transceiver - choose a tuner - choose
an antenna - find someone to errect it - get a log book - and I'm sure there
are lot's of other things ..... Anyway .... now I've shared my excitement
with you all - I feel much better.
John in Cornwall UK

# 3210. Re: FS: sma-to-bnc custom fit rubber covered antenna adapter

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-07 00:12:47 UTC
From: dplatt@radagast.org
Message-ID: <10r9tbvs4tj7329@corp.supernews.com>
Source record: 85707
Cross-posted to: rec.radio.swap,rec.radio.scanner,rec.radio.amateur.equipment,rec.radio.amateur.antenna

In article <R9GdnUdDnsvwfincRVn-qA@adelphia.com>,
Dave Bushong <db@9y.com> wrote:

>You missed my point, I think. The counterpoise is the (poor) metal of
>the radio and of the user's hand. Any connector/adapter will be coaxial
>and probably low loss, but the counterpoise stays put. The feedpoint
>rises but the "ground" plane does not. For an SMA adapter, it might not
>be enough to hear a difference, but the radiated signal will be worse
>when using such an adapter.

I'd say "may be worse" rather than "will be worse". In some cases, it
may be better.

From what I've seen (and measured) the actual impedances,
"counterpoise" effectiveness, etc. of HT antenna setups vary all over
the map, and change constantly depending on a whole bunch of
factors... how you grip the HT, whether you happen to be wearing a
glove, how you angle the HT near your head (antenna-loading effects
from the head can make SWR change dramatically), and probably whether
you're sweating or not.

A typical HT case is almost certainly _not_ serving as a tuned
counterpoise at 2 meters, nor is your arm and body.

Adding a centimeter or three of SMA-to-BNC connector to the length of
the "counterpoise" may have some small effect in some cases, but I
believe that [1] it's as likely to work for you as against you, and
[2] it's probably less than the sorts of impedance variations which a
typical HT has to face every day as it's moved around the user's head
during transmission.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

# 3211. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-07 00:14:28 UTC
From: w9dmk@crosslink.net
Message-ID: <41b4f526.12272587@news.crosslink.net>
Source record: 85708

On Mon, 06 Dec 2004 23:36:13 GMT, Richard Clark <kb7qhc@comcast.net>
wrote:

>On Mon, 06 Dec 2004 22:25:03 GMT, w9dmk@crosslink.net (Robert Lay
>W9DMK) wrote:
>
>>No - I didn't. That was a surprise to me, too! The specs on RG-59/U
>>say 73 ohms. There are 2 other RG-59 types - RG-59 Foam (75 ohms) and
>>RG-59A, also 73 ohms.
>
>Hi Bob,
>
>You are, in the expression common here in the NW, whipsawing me with
>your changes in cable type. I failed to catch that in your post.
>
>Given you are using 73 Ohm line, your results are very remarkable.
>I'm glad you've gone the distance. This group, however, exhibits a
>very odd ethic that I would call the reverse Little Red Hen story.
>
>Through more than 150 postings they all want to offer advice on how to
>cut the grain; they will tell you where to mill it into flour; they
>will offer you recipes on what to bake; but none seem to be around to
>praise the chef or the cake.
>
>73's
>Richard Clark, KB7QHC

Dear Richard,

Well, I only came here to share, so I'm not the least disappointed -
as some say, the pleasure is in the doing!

You might have asked why I changed coax.

I didn't feel that it would be as dramatic with only 17.5 ft of line.
So, I went to the barn and looked for the biggest, cleanest roll of
coax hanging on the wall, and that was it - Hi!

Bob, W9DMK, Dahlgren, VA
http://www.qsl.net/w9dmk

# 3212. PS

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-07 00:22:05 UTC
From: Simon Smith <s.Smith@btinternet.com>
Message-ID: <cp2t3c$9eq$1@titan.btinternet.com>
Source record: 85709

PS.......
I've Still got to wait for a call sign too.......
John

# 3213. Re: FS: sma-to-bnc custom fit rubber covered antenna adapter

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-07 00:27:53 UTC
From: DougSlug <dougslug@hotmail.com>
Message-ID: <iP6td.411$d21.28@fe10.lga>
Source record: 85710
Cross-posted to: rec.radio.swap,rec.radio.scanner,rec.radio.amateur.equipment,rec.radio.amateur.antenna

Not to mention the fact that the reason you're adding the adapter is most likely because you are putting a better antenna on the HT. I doubt what you *might* lose by moving the feedpoint away from the "counterpoise" is not as much as you gain by changing the antenna; otherwise, why bother? At higher frequencies this may not be the case, but probably not within the realm of a dual-band HT.

I've been using the Gulyas adapter for years now. I use it primarily for attaching a Smiley 270 telescopic whip to my VX-5, since that antenna works very well configured as a 5/8-wave on 70cm. The relative gain in performance over the stock antenna is quite noticeable, so in that case, the adapter causes no problems. The fit and appearance of the adapter on that rig is great, too!

- Doug

"Dave Platt" <dplatt@radagast.org> wrote in message
news:10r9tbvs4tj7329@corp.supernews.com...
> In article <R9GdnUdDnsvwfincRVn-qA@adelphia.com>,
> Dave Bushong <db@9y.com> wrote:
>
>>You missed my point, I think. The counterpoise is the (poor) metal of
>>the radio and of the user's hand. Any connector/adapter will be coaxial
>>and probably low loss, but the counterpoise stays put. The feedpoint
>>rises but the "ground" plane does not. For an SMA adapter, it might not
>>be enough to hear a difference, but the radiated signal will be worse
>>when using such an adapter.
>
> I'd say "may be worse" rather than "will be worse". In some cases, it
> may be better.
>
> From what I've seen (and measured) the actual impedances,
> "counterpoise" effectiveness, etc. of HT antenna setups vary all over
> the map, and change constantly depending on a whole bunch of
> factors... how you grip the HT, whether you happen to be wearing a
> glove, how you angle the HT near your head (antenna-loading effects
> from the head can make SWR change dramatically), and probably whether
> you're sweating or not.
>
> A typical HT case is almost certainly _not_ serving as a tuned
> counterpoise at 2 meters, nor is your arm and body.
>
> Adding a centimeter or three of SMA-to-BNC connector to the length of
> the "counterpoise" may have some small effect in some cases, but I

> believe that [1] it's as likely to work for you as against you, and
> [2] it's probably less than the sorts of impedance variations which a
> typical HT has to face every day as it's moved around the user's head
> during transmission.
>
> --
> Dave Platt <dplatt@radagast.org> AE6EO

# 3214. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-07 00:37:57 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <8du9r0lbttgutrfppk7a3uiorpl6blc6dc@4ax.com>
Source record: 85711

On Tue, 07 Dec 2004 00:14:28 GMT, w9dmk@crosslink.net (Robert Lay W9DMK) wrote:

>You might have asked why I changed coax.
>
>I didn't feel that it would be as dramatic with only 17.5 ft of line.
>So, I went to the barn and looked for the biggest, cleanest roll of
>coax hanging on the wall, and that was it - Hi!

Hi Bob,

I didn't ask why because it was evident from the drama of results. May as well force the numbers to expose the theory. I tried that with my own thread when you started this one - it n'er came out as well as yours. However, your confirmation of the loss does support my thesis, even if my thread did not.

73's
Richard Clark, KB7QHC

## 3215. Re: Celebrations !!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-07 00:39:25 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <7nu9r09du3mhsv9viqgv1h25f0om20su33@4ax.com>
Source record: 85712

On Tue, 7 Dec 2004 00:12:00 +0000 (UTC), "Simon Smith"
<s.Smith@btinternet.com> wrote:

>I took my foundation license and morse exam to-day, and both were
>sucessful.

Congratulations John.

73's
Richard Clark, KB7QHC

# 3216. Re: Celebrations !!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-07 00:49:53 UTC
From: Jim - NN7K <nn7kexk7zfg@NOSPAMsbcglobal.net>
Message-ID: <Q67td.55391$QJ3.20519@newssvr21.news.prodigy.com>
Source record: 85713

Congrats, and enjoy--- but as a thread of a couple days ago reminded --
(RE: You have been warned ), just remember , to quote: "WE ARE ALL NUTS"
:) Best-- Jim NN7K

Simon Smith wrote:
> I took my foundation license and morse exam to-day, and both were
> sucessful.
> All I have to do now is to: choose a transceiver - choose a tuner - choose
> an antenna - find someone to errect it - get a log book - and I'm sure there
> are lot's of other things ..... Anyway .... now I've shared my excitement
> with you all - I feel much better.
> John in Cornwall UK
>
>

# 3217. Re: Open wire source?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-07 01:05:59 UTC
From: Mike Coslo <mcoslo@adelphia.net>
Message-ID: <MLSdnVssD8ZqnCjcRVn-vA@adelphia.com>
Source record: 85714

Cecil Moore wrote:
> Roy Lewallen wrote:
>
>> My measurements, posted on this newsgroup some time ago and also
>> published in QST's Technical Correspondence even longer ago, were for
>> 300 ohm TV twinlead. The line was not lying on a wooden deck, nor did
>> the measurements involve detergent of any kind.
>
>
> Who was it who published loss data based on laying the ladder-line
> on a wooden deck and/or squirting a wetting agent on it? Did you
> use a wetting agent?

So what we're saying is that if it rains really hard (horizontal rain) and the rain happens to contain detergent, then that experimental result is valid! 8^)

I've had a ladder line fed antenna up for a couple years, and noted no difference between rainy and dry operation.

- Mike KB3EIA -

# 3218. Re: Celebrations !!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-07 01:10:22 UTC
From: "H. Adam Stevens, NQ5H" <NQ5H@ARRL.net>
Message-ID: <10ra0o08pmdi3ee@corp.supernews.com>
Source record: 85715

"Jim - NN7K" <nn7kexk7zfg@NOSPAMsbcglobal.net> wrote in message
news:Q67td.55391$QJ3.20519@newssvr21.news.prodigy.com...
> Congrats, and enjoy--- but as a thread of a couple days ago reminded --
> (RE: You have been warned ), just remember , to quote: "WE ARE ALL NUTS"
> :) Best-- Jim NN7K
>
> Simon Smith wrote:
>> I took my foundation license and morse exam to-day, and both were
>> sucessful.
>> All I have to do now is to: choose a transceiver - choose a tuner -
>> choose an antenna - find someone to errect it - get a log book - and I'm
>> sure there are lot's of other things ..... Anyway .... now I've shared my
>> excitement with you all - I feel much better.
>> John in Cornwall UK
But this nut, when he was 14, April 1964, took the bus from Waco to Dallas,
walked to the Federal Building, took the 13 WPM test and the written.
Nailed them both.
1964
So there.
73
H.

Oh yeah, welcome to the club.

# 3219. Re: Open wire source?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-07 01:16:29 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10ra13igh8acn63@corp.supernews.com>
Source record: 85716

No, I didn't use a wetting agent other than Oregon rain (which was not squirted, but allowed to fall naturally from the sky). And your recollection of a line "laying" [sic] on a wooden deck might be because my line was supported above my wooden deck (several feet above the ground) by TV standoff insulators. Interesting how we remember what we want to, rather than what we actually read, isn't it?

Perhaps you should go back and read my posting. If you can't find it with a groups.google.com search, let me know and I'll post the date and subject title. Or, if you have back issues of QST, see Technical Correspondence in the February 1982 issue.

In the 22 years since publishing the test results, I haven't seen any objective and quantitative test results which contradict my findings.

Roy Lewallen, W7EL

Cecil Moore wrote:
> Roy Lewallen wrote:
>
>> My measurements, posted on this newsgroup some time ago and also
>> published in QST's Technical Correspondence even longer ago, were for
>> 300 ohm TV twinlead. The line was not lying on a wooden deck, nor did
>> the measurements involve detergent of any kind.
>
>
> Who was it who published loss data based on laying the ladder-line
> on a wooden deck and/or squirting a wetting agent on it? Did you
> use a wetting agent?
> --
> 73, Cecil http://www.qsl.net/w5dxp

# 3220. Re: PS

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-07 01:20:39 UTC
From: "aunwin@insightbb.com"
Message-ID: <Hz7td.723150$8_6.116358@attbi_s04>
Source record: 85717

"Simon Smith" <s.Smith@btinternet.com> wrote in message
news:cp2t3c$9eq$1@titan.btinternet.com...
> PS.......
> I've Still got to wait for a call sign too.......
> John
>
>

Congrats John,
When I first got mine I think I made at least 50 G QSOs
before I took one from a Yank but then the cycle was at it's best.
It was a most exciting time.
Set yourself up mobile at Lands End and I think you can make it to the East
Coast.
Cheers
Art KB9MZ

# 3221. Re: FS: sma-to-bnc custom fit rubber covered antenna adapter

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-07 01:47:32 UTC
From: Dave Bushong <db@9y.com>
Message-ID: <6fednbzPJudYlijcRVn-ow@adelphia.com>
Source record: 85718
Cross-posted to: rec.radio.swap,rec.radio.scanner,rec.radio.amateur.equipment,rec.radio.amateur.antenna

Dave Platt wrote:
> In article <R9GdnUdDnsvwfincRVn-qA@adelphia.com>,
> Dave Bushong <db@9y.com> wrote:
>
>
>>You missed my point, I think. The counterpoise is the (poor) metal of
>>the radio and of the user's hand. Any connector/adapter will be coaxial
>>and probably low loss, but the counterpoise stays put. The feedpoint
>>rises but the "ground" plane does not. For an SMA adapter, it might not
>>be enough to hear a difference, but the radiated signal will be worse
>>when using such an adapter.
>
>
> I'd say "may be worse" rather than "will be worse". In some cases, it
> may be better.
> [...]

Tell me, specifically, in which cases that my info would not be true. I made some measurements before I posted. Did you?

I was just saying that extending the feedpoint / current node, as was suggested, will lower the radiated power. I measured field strength measurements and then posted my results.

I still feel that the more aluminum in the sky, the better. Even if there is some loss in adapters... mmmm.... bigger antennas, happier hams.

73,
Dave
kz1o

# 3222. Re: Celebrations !!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-07 01:55:09 UTC
From: Dave Bushong <db@9y.com>
Message-ID: <jcCdnfm96soSkCjcRVn-tQ@adelphia.com>
Source record: 85719

Simon Smith wrote:
> I took my foundation license and morse exam to-day, and both were
> sucessful.
> All I have to do now is to: choose a transceiver - choose a tuner - choose
> an antenna - find someone to errect it - get a log book - and I'm sure there
> are lot's of other things ..... Anyway .... now I've shared my excitement
> with you all - I feel much better.
> John in Cornwall UK
>
>

Foundation license? Which is that????

Simon, good luck to you, and you should spend more time on the air than
you spend here. Get away from this web site - the rec.radio.amateur.*
newsgroups are mostly counter-productive. You will find people here
who, well, don't get on the air (I don't know how else to say it).

You should go work CW, work voice, spend some time on SSTV, and then on
PSK, and try some of the funky digital modes, and of course, do some
SSB, but make it so much fun that you can't even explain to your friends
why you spend every weekend doing it.

You will see -- it's the best hobby you have ever picked.

Take care, and all the best, and 73

Dave
kz1o

# 3223. Re: Celebrations !!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-07 02:50:03 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <10ra6jd29djtb21@corp.supernews.com>
Source record: 85720

Dave Bushong wrote:

> Simon Smith wrote:
>
>> I took my foundation license and morse exam to-day, and both were
>> sucessful.
>> All I have to do now is to: choose a transceiver - choose a tuner -
>> choose an antenna - find someone to errect it - get a log book - and
>> I'm sure there are lot's of other things ..... Anyway .... now I've
>> shared my excitement with you all - I feel much better.
>> John in Cornwall UK
>>
>
> Foundation license? Which is that????
>
British...

Congratulations Simon. Hope to see you on the air someday.

Dave WD9BDZ

> Simon, good luck to you, and you should spend more time on the air than
> you spend here. Get away from this web site - the rec.radio.amateur.*
> newsgroups are mostly counter-productive. You will find people here
> who, well, don't get on the air (I don't know how else to say it).
>
> You should go work CW, work voice, spend some time on SSTV, and then on
> PSK, and try some of the funky digital modes, and of course, do some
> SSB, but make it so much fun that you can't even explain to your friends
> why you spend every weekend doing it.
>
> You will see -- it's the best hobby you have ever picked.
>
> Take care, and all the best, and 73
>
> Dave
> kz1o

# 3224. Re: FS: sma-to-bnc custom fit rubber covered antenna adapter

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-07 02:52:00 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <10ra6n29bu3uva4@corp.supernews.com>
Source record: 85721
Cross-posted to: rec.radio.swap,rec.radio.scanner,rec.radio.amateur.equipment,rec.radio.amateur.antenna

HT's are as close to having an isotropic antenna as anything to be had.

Dave WD9BDZ

Dave Platt wrote:

> In article <R9GdnUdDnsvwfincRVn-qA@adelphia.com>,
> Dave Bushong <db@9y.com> wrote:
>
>
>>You missed my point, I think. The counterpoise is the (poor) metal of
>>the radio and of the user's hand. Any connector/adapter will be coaxial
>>and probably low loss, but the counterpoise stays put. The feedpoint
>>rises but the "ground" plane does not. For an SMA adapter, it might not
>>be enough to hear a difference, but the radiated signal will be worse
>>when using such an adapter.
>
>
> I'd say "may be worse" rather than "will be worse". In some cases, it
> may be better.
>
> From what I've seen (and measured) the actual impedances,
> "counterpoise" effectiveness, etc. of HT antenna setups vary all over
> the map, and change constantly depending on a whole bunch of
> factors... how you grip the HT, whether you happen to be wearing a
> glove, how you angle the HT near your head (antenna-loading effects
> from the head can make SWR change dramatically), and probably whether
> you're sweating or not.
>
> A typical HT case is almost certainly _not_ serving as a tuned
> counterpoise at 2 meters, nor is your arm and body.
>
> Adding a centimeter or three of SMA-to-BNC connector to the length of
> the "counterpoise" may have some small effect in some cases, but I
> believe that [1] it's as likely to work for you as against you, and
> [2] it's probably less than the sorts of impedance variations which a
> typical HT has to face every day as it's moved around the user's head
> during transmission.
>

# 3225. Re: Celebrations !!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-07 02:56:43 UTC
From: kelly@dvol.com
Message-ID: <1102388203.139494.22910@z14g2000cwz.googlegroups.com>
Source record: 85622

H. Adam Stevens, NQ5H wrote:
> "Jim - NN7K" <nn7kexk7zfg@NOSPAMsbcglobal.net> wrote in message
> news:Q67td.55391$QJ3.20519@newssvr21.news.prodigy.com...
> > Congrats, and enjoy--- but as a thread of a couple days ago
reminded --
> > (RE: You have been warned ), just remember , to quote: "WE ARE ALL
NUTS"
> > :) Best-- Jim NN7K
> >
> > Simon Smith wrote:
> >> I took my foundation license and morse exam to-day, and both were

> >> sucessful.
> >> All I have to do now is to: choose a transceiver - choose a tuner
-
> >> choose an antenna - find someone to errect it - get a log book -
and I'm
> >> sure there are lot's of other things ..... Anyway .... now I've
shared my
> >> excitement with you all - I feel much better.
> >> John in Cornwall UK

Get on the air and enjoy, Simon!

> But this nut, when he was 14, April 1964, took the bus from Waco to
Dallas,
> walked to the Federal Building, took the 13 WPM test and the written.
> Nailed them both.
> 1964
> So there.

This raving looney & class nerd hiked uphill both ways in a raging
blizzard to the Old Customhouse in Philly and passed the 5wpm Novice
thing 1953. Follwed shortly by the same trek for the 13wpm test for the
General. Thought I had it made for life and that I'd seen the last of
those squinty-eyed FCC examiners. But, nah, they reshuffled the deck
and "invited me back" in 1968 to take the 20wpm Extra. Figgered that
since we were getting snowed in I also took/passed the Second
Radiotelegraph to kill some time . .

. . . (so there) . . ?
> 73
> H.

w3rv

>
> Oh yeah, welcome to the club.

# 3226. Re: Open wire source?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-07 03:00:24 UTC
From: Mike Coslo <mcoslo@adelphia.net>
Message-ID: <vdednUFe85BagSjcRVn-gA@adelphia.com>
Source record: 85623

Cecil Moore wrote:

> Roy Lewallen wrote:
>
>> My measurements, posted on this newsgroup some time ago and also
>> published in QST's Technical Correspondence even longer ago, were for
>> 300 ohm TV twinlead. The line was not lying on a wooden deck, nor did
>> the measurements involve detergent of any kind.
>
>
> Who was it who published loss data based on laying the ladder-line
> on a wooden deck and/or squirting a wetting agent on it? Did you
> use a wetting agent?

The N7WS experiment was accomplished by coating the line with a wetting agent.

The wire was suspended horizontally, 12 feet of it.

The author notes that it was "difficult to maintain uniform wetness" during the time it took to run the experiment. This would mean that he likely pooled water on the line.

And finally, I performed a little experiment. I have the ladder line from that antenna that was up for 2 years. Application of some water showed that it would bead up very nicely.

I just don't think the test conditions are very realistic. But it does tell me not to wash my ladder line with soap and water! ;^)

- Mike KB3EIA -

# 3227. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-07 03:03:47 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10ra7cocjgbv6d2@corp.supernews.com>
Source record: 85624

I never did quite get clear about your thesis. Would you mind restating it?

Roy Lewallen, W7EL

Richard Clark wrote:

> Hi Bob,
>
> I didn't ask why because it was evident from the drama of results.
> May as well force the numbers to expose the theory. I tried that with
> my own thread when you started this one - it n'er came out as well as
> yours. However, your confirmation of the loss does support my thesis,
> even if my thread did not.
>
> 73's
> Richard Clark, KB7QHC

# 3228. Re: Celebrations !!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-07 03:04:20 UTC
From: The Modulator <TM@mode.net>
Message-ID: <U49td.200964$hj.14697@fed1read07>
Source record: 85625

Golly let me take exception Dave

The newsgroups - particularly this one is a great Amateur Radio asset --
many knowledgeable antenna gurus here.
Many technical questions and answers are fielded on the NG's every day.

Yes NGs are free and open forums -- so you will find many junk posts, but
weed thru them and there is really some good stuff.

As for being on the air -- anyone on HF will know that "A foundation
License" has been issued in the UK since January 2002
See URL:
http://www.rsgb.org/beginners/licences.htm

Many many folks on the NGs are on the air frequently -- see
rec.radio.amateur.dx or the digital or satellite groups

Anyway congratulations are in order for John in Cornwell.

Dave gave you some great ideas for modes of operation and I agree "You will
see -- it's the best hobby you have ever picked."

Welcome to Ham Radio

73, Happy Holidays, and enjoy the many facets of Amateur Radio

--
The Modulator In The USA -- RF Gotta Go Somewhere

"Dave Bushong" <db@9y.com> wrote in message
news:jcCdnfm96soSkCjcRVn-tQ@adelphia.com...
> Simon Smith wrote:
>> I took my foundation license and morse exam to-day, and both were
>> sucessful.
>> All I have to do now is to: choose a transceiver - choose a tuner -
>> choose an antenna - find someone to errect it - get a log book - and I'm
>> sure there are lot's of other things ..... Anyway .... now I've shared my
>> excitement with you all - I feel much better.
>> John in Cornwall UK
>
> Foundation license? Which is that????
>
> Simon, good luck to you, and you should spend more time on the air than
> you spend here. Get away from this web site - the rec.radio.amateur.*
> newsgroups are mostly counter-productive. You will find people here who,
> well, don't get on the air (I don't know how else to say it).
>

> You should go work CW, work voice, spend some time on SSTV, and then on
> PSK, and try some of the funky digital modes, and of course, do some SSB,
> but make it so much fun that you can't even explain to your friends why
> you spend every weekend doing it.
>
> You will see -- it's the best hobby you have ever picked.
>
> Take care, and all the best, and 73
>
> Dave
> kz1o

# 3229. Re: Open wire source?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-07 03:35:02 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41b522ed$1_1@127.0.0.1>
Source record: 85627

"Mike Coslo" <mcoslo@adelphia.net> wrote:
> I just don't think the test conditions are very realistic. But it does
> tell me not to wash my ladder line with soap and water! ;^)

The way I tune my antenna system is by varying the length of the
ladder-line.
I have never seen rain make more than a two foot change necessary and the
SWR only ever changed by about 0.2. Two feet of feedline on 40m is not much
of a change in impedance and neither is an SWR change from 1.8:1 to 1.6:1.
Of course, I am savvy enough not to have a horizontal run of ladder-line out
in the rain. :-)
--
73, Cecil http://www.qsl.net/w5dxp

# 3230. Re: Celebrations !!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-07 03:38:36 UTC
From: Topaz305RK <k7sam@arrl.net>
Message-ID: <X4SdnaqmlevGuCjcRVn-uA@vnet-inc.com>
Source record: 85626

John

Congrats and "Good-on-ya".

Hope you get everything you wish for and once set up we can have a nice chat on the air on SSB, CW, PSK31, whatever.

K7SAM

# 3231. Re: FS: sma-to-bnc custom fit rubber covered antenna adapter

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-07 03:41:08 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10ra9ipomik1v28@corp.supernews.com>
Source record: 85628
Cross-posted to: rec.radio.swap,rec.radio.scanner,rec.radio.amateur.equipment,rec.radio.amateur.antenna

A few themes have shown up on this thread that seem to reinforce some misconceptions about antennas. They might not have been meant that way, but I think it's a good idea to clarify them in case a casual reader might drop by and be misled.

The first one is about where the "transmission line" ends and where the "antenna" starts. The antenna starts at the point where the two current carrying conductors move far enough apart for significant radiation to take place. By way of illustration, let's take the example of a simple vertical mounted on a perfect ground plane. We'll feed it at the bottom via a piece of coax. It doesn't matter where the coax is, above or below the ground plane. Inside the coax, there's current on the outside of the inner conductor, and an equal amount, flowing the opposite direction, on the inside of the outer conductor. The fields from these two currents cancel everywhere outside the coax, so it doesn't radiate.

At the point where the coax connects to the antenna, the current from the inner conductor flows up the antenna. The (equal) current from the inside of the shield flows over the ground plane, spreading out from the point where the shield connects to the ground plane. The currents are now physically separated, so their fields no longer cancel, and net radiation can result.

An important feature of this setup is the effect of the current flowing along the ground plane. For every bit of current flowing outward in one direction, there's an equal bit flowing outward in exactly the other direction. The fields from these two bits of current cancel at right angles to the directions of flow. When you look at all the bits of current, you find that the net field from the whole amount of current is zero. So the current on the ground plane doesn't result in any radiation. (By contrast, the current on the antenna wire doesn't have any cancelling current, so it radiates.) A conductor which carries current but doesn't radiate (significantly) is often called a "counterpoise". Misuse of this term is another problem with some of the postings, and I'll address it in a minute. The important thing to remember is that a "counterpoise" doesn't radiate significantly. If it does, it's not a "counterpoise" but a part of the antenna.

What happens if we put a piece of pipe around the bottom, say, 1/4 of the antenna, weld it to the ground plane, and connect the coax shield to its inside? Now the pipe is an extension of the transmission line. The portion of the antenna inside the pipe is the center conductor, and the pipe is the shield. So the portion of the antenna inside the pipe can't really be called an "antenna" any more, since it doesn't radiate.

The current on the inside of the pipe reaching the top of the pipe flows over the edge and down the outside to the ground plane. Here's a very important point: *This current radiates just like the current on the antenna wire*. What we have now is a lopsided dipole. The antenna wire protruding from the top of the pipe is one side of the dipole, and the outside of the pipe is the other. The "feedpoint" is where the wire sticks out of the pipe. Once the current along the outside of the pipe hits the ground plane, it spreads as before. The current on the outside of the pipe radiates, the current on the ground plane doesn't.

A statement was made about a situation sort of like this "shielding" the "high current" part of the antenna. This isn't what happens at all. What happens is that the portion of the original antenna wire inside the pipe is no longer an antenna at all, but part of a transmission line. The current on it isn't the same as before the pipe was put there. The radiating antenna is now the portion sticking out of the pipe, and the current at its bottom, all other things being equal, will now be greater than before the pipe was added. No signal or power is lost due to "shielding". All you've done is shortened the antenna a bit, just as though you'd cut a bit off the top.

Now let's remove the pipe and bend the ground plane downward into a cone, with the antenna sticking out of the cone's apex. Here we'll find that the current flowing on the ground plane does indeed radiate. There's no net radiation straight up, but it radiates horizontally and in all other directions. The ground plane is no longer a "counterpoise", but simply a conically-shaped dipole half. If the ground plane radius was about the same as the "antenna" length, and the ground plane is bent downward at a reasonably sharp angle, the radiation from the conical ground plane will be about the same as the radiation from the "antenna". Calling it a "counterpoise" doesn't give it magical properties so we can ignore it -- it's every bit as much a part of the antenna as the "antenna".

Finally, consider an HT. Here, one half of the antenna is the rubber ducky or other "antenna". If you put a sleeve over part of the outside of it, the real radiating top part of the antenna is the part sticking out of the sleeve. The other half of the antenna -- NOT a "counterpoise", but a real part of the antenna of at least equal importance to the intended part -- is the outside of the sleeve, and the outside of the HT, your hand, and your body. Whatever current flows up into your "antenna" also flows along the other half -- that is, along the HT and your body -- and radiates.

Roy Lewallen, W7EL

# 3232. wanted: schematic for KDK FM2030

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-07 03:58:41 UTC
From: TJ <tjtrucker@hotmail.com>
Message-ID: <RT9td.453575$%k.143560@pd7tw2no>
Source record: 85629

Looking for a copy of schematic for a KDK FM2030 2 meter radio.

Al ve7agw,
ve7agw@shaw.ca

# 3233. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-07 06:49:18 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <6ckar0h4gj7hc9bhcmaoqaitbgobrerji1@4ax.com>
Source record: 85630

On Mon, 06 Dec 2004 19:03:47 -0800, Roy Lewallen <w7el@eznec.com>
wrote:
>I never did quite get clear about your thesis. Would you mind restating it?

Source Z matters.

# 3234. Re: Celebrations !!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-07 09:17:33 UTC
From: Bob Bob <bcnntp@optusnet.com.au>
Message-ID: <d29g82-rk1.ln1@p400bob.lse.com.au>
Source record: 85631

Well done Simon

Cheers Bob VK2YQA

Simon Smith wrote:
> I took my foundation license and morse exam to-day, and both were
> sucessful.
> All I have to do now is to: choose a transceiver - choose a tuner - choose
> an antenna - find someone to errect it - get a log book - and I'm sure there
> are lot's of other things ..... Anyway .... now I've shared my excitement
> with you all - I feel much better.
> John in Cornwall UK
>
>

# 3235. Re: Open wire source?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-07 10:46:56 UTC
From: David J Windisch <davidw@copper.net>
Message-ID: <41b58a63_1@newsfeed.slurp.net>
Source record: 85632

Shucks, OM, all us un-savvy ;o) folks do, to make the rain run off, is to twist an ell-ell a few times, over its length. Works for vertical lengths, too. It even tends to equalize exposure of the l-l conductors to antenna fields.

(Segue into cure for warts, dandruff, acid reflux omitted.)

73, Dave, N3HE

"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:41b522ed$1_1@127.0.0.1...
SNIP
> Of course, I am savvy enough not to have a horizontal run of ladder-line
> out
> in the rain. :-)
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>
>

# 3236. New version 4nec2 freeware antenna optimizer

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-07 12:55:32 UTC
From: 4nec2@gmx.net
Message-ID: <ee90361b.0412070455.4eee8627@posting.google.com>
Source record: 85633

Hello...,

for those interested, just released the latest 5.4.1 new version for the freeware 4nec2 antenna visualizer and optimizer.
(see http://www.si-list.org/swindex2.html and look for 4nec2)

With this the below new features are now availble for use:

- Batch processing for automatic testing and calculation of multiple (4)Nec2 files.
- Extensive Nec-2 segment- en geometry validation, such as: Intersecting volumes, Short/thick wires at sharp angle, Unequal segmentation for parallel wires, Too low hight, Large radius or length changes at junctions, etc.
- Screen grabber for easy cut/paste and print or save parts of the screen/window/form.
- Automatic convergence-testing function with line-chart result display.
- Enhanced variable-sweeper function for more easy use.
- Automatic generation of L, Pi and T matching-networks (low- and high-pass)
- Plot 2D and 3D graphs/charts using gnuplot freeware package
- Show Circular Polarization components for the far-field.
- Switchable Eznec- or traditional-style current display.
- Use of Insulated-Wires and 'LC-trap' loading-types.
- Updated build.exe to avoid unconnected or overlapping wires

For those not (yet) familiar with the 4nec2 package below some of the other 4nec2 'highlights':

- Drawing style geometry editor to assist the starting antenne modeller.
- Graphical 3D visualization of Far- and Near-field data and antenna strutures
- Line-chart visualization for freq-sweep Gain, F/B, F/R, SWR and impedance data.
- Full Nec-2 command support, including GX, GM, GR, GA, GH and surface patches.
- Support for inclusion of surface-wave in far-field data.
- Variable substitution included for complete Nec-2 command set.
- Sophisticated real-time 3D viewer showing real wire-radius for modern-computers
- Capable of using the max of 2Gb of windows on-board memory (appr. 11000 segs)
- Interactive Smith chart visualization for freq-sweeps
- AO-style gradient/hill-climbing optimizer included.

- Genetic Algorithms based optimizer included.
- Automatic variable sweeper included.
- Integrated Sommerfeld ground calculations.
- Running on all systems from early Windows-95 to latest Windows-XP
- Context sensitive Help-file.
- Completely free.

Arie.

# 3237. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-07 13:02:01 UTC
From: Frank <ve6cb@NOSPAM.telus.net>
Message-ID: <dRhtd.50140$VL6.20076@clgrps13>
Source record: 85634

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:6ckar0h4gj7hc9bhcmaoqaitbgobrerji1@4ax.com...
> On Mon, 06 Dec 2004 19:03:47 -0800, Roy Lewallen <w7el@eznec.com>
> wrote:
>>I never did quite get clear about your thesis. Would you mind restating
>>it?
>
> Source Z matters.

What is the source Z of a solid state power amplifier, or even a tube
amplifier?

73,

Frank

# 3238. Changing design frequency of K2RIW 432 MHz yagi

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-07 13:05:24 UTC
From: eat_spam@nlsa.com
Message-ID: <1102424724.512250.55520@c13g2000cwb.googlegroups.com>
Source record: 85636

I need to "move" a 19-element K2RIW 432 MHz yagi from its orignal design frequency of 432 MHz to 445 MHz. I can't change to element positions but I can change their lengths. But by how much? -W9IP

# 3239. Re: Celebrations !!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-07 13:07:07 UTC
From: "H. Adam Stevens, NQ5H" <NQ5H@ARRL.net>
Message-ID: <10rbanrfr8oi9c1@corp.supernews.com>
Source record: 85635

"Bob Bob" <bcnntp@optusnet.com.au> wrote in message
news:d29g82-rk1.ln1@p400bob.lse.com.au...
> Well done Simon
>
> Cheers Bob VK2YQA
>
> Simon Smith wrote:
>> I took my foundation license and morse exam to-day, and both were
>> sucessful.
>> All I have to do now is to: choose a transceiver - choose a tuner -
>> choose an antenna - find someone to errect it - get a log book - and I'm
>> sure there are lot's of other things ..... Anyway .... now I've shared my
>> excitement with you all - I feel much better.
>> John in Cornwall UK
Welcome to the club.
I am on 20 meters (Spiderweb Net, 14.347 MHz) as I type.
So much for usenet displacing actual ham radio operation.
73, H.

# 3240. Re: Celebrations !!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-07 13:23:53 UTC
From: K7MEM <k7mem@myrealbox.com>
Message-ID: <cp4ate$iqs2@cui1.lmms.lmco.com>
Source record: 85637

H. Adam Stevens, NQ5H wrote:
> "Jim - NN7K" <nn7kexk7zfg@NOSPAMsbcglobal.net> wrote in message
> news:Q67td.55391$QJ3.20519@newssvr21.news.prodigy.com...
>
>>Congrats, and enjoy--- but as a thread of a couple days ago reminded --
>>(RE: You have been warned ), just remember , to quote: "WE ARE ALL NUTS"
>>:) Best-- Jim NN7K
>>
>>Simon Smith wrote:
>>
>>>I took my foundation license and morse exam to-day, and both were
>>>sucessful.
>>>All I have to do now is to: choose a transceiver - choose a tuner -
>>>choose an antenna - find someone to errect it - get a log book - and I'm
>>>sure there are lot's of other things ..... Anyway .... now I've shared my
>>>excitement with you all - I feel much better.
>>>John in Cornwall UK
>
> But this nut, when he was 14, April 1964, took the bus from Waco to Dallas,
> walked to the Federal Building, took the 13 WPM test and the written.
> Nailed them both.
> 1964
> So there.
> 73
> H.
>
> Oh yeah, welcome to the club.

Not to diminish anyone's achievements, but that is the way to do things.
Take as many tests as you can, at one time. Keep on taking them until
you fail one. Then go back home and study some more.

As long as we are beating our chests, several years ago I walked in to
the testing station and took the Technician test, General test, and
13 WPM test in one sitting. Aced them all. Then, 6 months later, I did
the Advanced test, Extra test, and the 20 WPM in one sitting. Again,
acing them all.

But congratulations to John in Cornwall UK. We will be waiting to hear
you on the bands. Not only are we NUTS, we are MIXED NUTS.

--
Martin E. Meserve - K7MEM
http://www.k7mem.com

# 3241. Re: New version 4nec2 freeware antenna optimizer

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-07 13:37:31 UTC
From: Frank <ve6cb@NOSPAM.telus.net>
Message-ID: <vmitd.50141$VL6.29135@clgrps13>
Source record: 85638

Is 5.4.1 a stand-alone version? What is 4nec2X541.zip? Is anybody working on a free Windows version of NEC4 (Providing you obtain the appropriate license from Lawrence Livermore)?

Regards,

Frank

<4nec2@gmx.net> wrote in message news:ee90361b.0412070455.4eee8627@posting.google.com...
> Hello...,
>
> for those interested, just released the latest 5.4.1 new version for
> the freeware 4nec2 antenna visualizer and optimizer.
> (see http://www.si-list.org/swindex2.html and look for 4nec2)
>
> With this the below new features are now availble for use:
>
> - Batch processing for automatic testing and calculation of multiple
> (4)Nec2 files.
> - Extensive Nec-2 segment- en geometry validation, such as:
> Intersecting volumes, Short/thick wires at sharp angle, Unequal
> segmentation for parallel wires, Too low hight, Large radius or
> length changes at junctions, etc.
> - Screen grabber for easy cut/paste and print or save parts of the
> screen/window/form.
> - Automatic convergence-testing function with line-chart result
> display.
> - Enhanced variable-sweeper function for more easy use.
> - Automatic generation of L, Pi and T matching-networks (low- and
> high-pass)
> - Plot 2D and 3D graphs/charts using gnuplot freeware package
> - Show Circular Polarization components for the far-field.
> - Switchable Eznec- or traditional-style current display.
> - Use of Insulated-Wires and 'LC-trap' loading-types.
> - Updated build.exe to avoid unconnected or overlapping wires
>
> For those not (yet) familiar with the 4nec2 package below some of the
> other 4nec2 'highlights':
>
> - Drawing style geometry editor to assist the starting antenne
> modeller.
> - Graphical 3D visualization of Far- and Near-field data and antenna
> strutures
> - Line-chart visualization for freq-sweep Gain, F/B, F/R, SWR and

> impedance data.
> - Full Nec-2 command support, including GX, GM, GR, GA, GH and
> surface patches.
> - Support for inclusion of surface-wave in far-field data.
> - Variable substitution included for complete Nec-2 command set.
> - Sophisticated real-time 3D viewer showing real wire-radius for
> modern-computers
> - Capable of using the max of 2Gb of windows on-board memory
> (appr. 11000 segs)
> - Interactive Smith chart visualization for freq-sweeps
> - AO-style gradient/hill-climbing optimizer included.
> - Genetic Algorithms based optimizer included.
> - Automatic variable sweeper included.
> - Integrated Sommerfeld ground calculations.
> - Running on all systems from early Windows-95 to latest Windows-XP
> - Context sensitive Help-file.
> - Completely free.
>
> Arie.

# 3242. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-07 13:48:55 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10rbd6cd8g3pt8f@corp.supernews.com>
Source record: 85639

Richard Clark wrote:
> On Mon, 06 Dec 2004 19:03:47 -0800, Roy Lewallen <w7el@eznec.com>
> wrote:
>
>>I never did quite get clear about your thesis. Would you mind restating it?
>
>
> Source Z matters.

Guess I didn't misunderstand after all -- it actually was so vague as to
be meaningless. Thanks for the elaboration.

Roy Lewallen, W7EL

# 3243. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-07 14:46:47 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41b5c054$1_2@127.0.0.1>
Source record: 85640

"Richard Clark" <kb7qhc@comcast.net> wrote:
> Source Z matters.

The *magnitudes* and *phases* of Vfor and Vref are affected by Zs as
described by Chipman. But I don't find anything in Chipman's book to
indicate that the *ratio* of Vmax to Vmin (VSWR) is affected by Zs.

Perusing all the references to VSWR in Chipman's book, you will find
that the source is not mentioned at all. Only the load reflection
coefficient
and the transmission line characteristics are needed to calculate VSWR.
--
73, Cecil http://www.qsl.net/w5dxp

# 3244. Re: Question re: running balanced line - shielded

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-07 15:12:47 UTC
From: - XC - <nobody@home.net>
Message-ID: <kt6dnUXf1-jyVSjcRVn-vQ@comcast.com>
Source record: 85641

Jim,
with respect to keeping the system all balanced and running the balanced line through portals along with metal objects,
you can simply make a length of shielded balanced line using two pieces of coax with the braids connected at each end and connected to shack ground on the inside end. It becomes a shielded balanced line of twice the coax Zo and can be directly inserted into the transmission path with no problems.

Check out "Some Aspects of Series and Parallel Coaxial Cable Assemblies" at Cebik's site, in particular the "Series-Connected Coax" section

http://www.cebik.com/spcoax.html

73,
John

<JimK2TL@gmail.com> wrote in message
news:1102350139.889199.151140@f14g2000cwb.googlegroups.com...
> Greetings
> I have been using balanced line for many years and am convinced of its
> virtues, particularly since I use a single tuned doublet for multiband
> use.
> The question I have never been able to get a clear answer on is this;
> How critical is it for the balanced line to avoid metal objects?
> Specifically, I now use about 6 feet of LMR 400 coax from a Radio Works
> remote balun into my shack where I tune the antenna from either a
> manual tuner or the auto tuner in my FT920. In order for me to run the
> twinlead all the way into the shack there will be about 18 inches where
> the twinlead will share a portal that I constructed to get my grounds
> and other cables in and out of the shack. Now I always thought this
> was a problem area for twinlead, hence the use of the remote balun.
> I am considering the purchase of a new tuner and was thinking I would
> like a Palstar Balanced Tuner. But can I use it? Would I be better of
> with a T match and a short length of coax to a balun, or would a
> balanced tuner be better even with the 18" or so of twinlead coming in
> close proximity to the other conductors?
> I really can not bring the twinlead in without it crossing paths as I
> desribed.
> Is a balanced tuner all that better than a T match anyway in terms of
> antenna performance or loss?
> What say?
> Thanks
>

# 3245. Re: Short anchor bolt problem

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-07 15:32:01 UTC
From: Bill Grimwood <bill@grimwood.net>
Message-ID: <10rbj6s1tda65e0@corp.supernews.com>
Source record: 85642

Find a local civil engineer and give him your situation and he can tell you
if it will work.

73
W4WEG

"gus" <fertree@yahoo.com> wrote in message
news:jkqcq0dtrrh7adqtu8gob5k67bhe2sm4mr@4ax.com...
>I am about to put up a tx-455 self supporting tower. The site
> currently has a concrete pad, which has been described to me as
> follows: The pad is 5' X 5' and about 3 feet deep. The pad is
> heavily rebarred, and pinned to 30 feet of bedrock with 3 foot
> epoxeyed bolts (4 of them). The bolts are about 24 inches into the
> bedrock. There are 3 anchor bolts sticking out of the pad which
> perfectly match the base plate of the tower. Here's the problem. Those
> bolts are 12 inches in length 9 inches in the concrete and
> 3 inches extending out for th tower base. If I guy the bottom
> section and use a fairly light antenna (HF quad) will I be okay?

# 3246. Re: Question re: running balanced line - shielded

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-07 15:37:43 UTC
From: "JimK2TL@gmail.com" <JimK2TL@gmail.com>
Message-ID: <1102433863.864237.91350@c13g2000cwb.googlegroups.com>
Source record: 85644

John
I read that link with great interest. Some years back I saw an article where twinlead was constructed out of coaxial cable for the purpose of running it through environments that would be bad news for normal twinlead. I thought it was rather stupid because the loss on such a line would defeat the whole purpose of using twinlead. However, for my purposes where I just need a couple of feet or less to be in close contact with other cableing, this might work. The question is, why then are remote baluns promoted as the solution to this common problem? And, is the coax twinlead and a balnaced tuner a better choice than a short lenght of very low loss coax, a good current balun, and a T match?
I am not trying to be difficult, I just want to set this up as efficinetly as possible. This might actually be the key! I just need to know if I should go with a short section of coaxial twinlead and a balanced tuner...or leave well enough alone.

# 3247. Re: Question re: running balanced line - shielded

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-07 15:38:29 UTC
From: "JimK2TL@gmail.com" <JimK2TL@gmail.com>
Message-ID: <1102433909.868314.166150@z14g2000cwz.googlegroups.com>
Source record: 85643

John
I read that link with great interest. Some years back I saw an article where twinlead was constructed out of coaxial cable for the purpose of running it through environments that would be bad news for normal twinlead. I thought it was rather stupid because the loss on such a line would defeat the whole purpose of using twinlead. However, for my purposes where I just need a couple of feet or less to be in close contact with other cableing, this might work. The question is, why then are remote baluns promoted as the solution to this common problem? And, is the coax twinlead and a balnaced tuner a better choice than a short lenght of very low loss coax, a good current balun, and a T match?
I am not trying to be difficult, I just want to set this up as efficinetly as possible. This might actually be the key! I just need to know if I should go with a short section of coaxial twinlead and a balanced tuner...or leave well enough alone.
Great info!
Thanks!

# 3248. Re: Changing design frequency of K2RIW 432 MHz yagi

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-07 15:54:03 UTC
From: Lloboto <nospam@nospam.com>
Message-ID: <31m5hfF3c8cf0U1@individual.net>
Source record: 85648

<eat_spam@nlsa.com> wrote in message
news:1102424724.512250.55520@c13g2000cwb.googlegroups.com...
> I need to "move" a 19-element K2RIW 432 MHz yagi from its orignal
> design frequency of 432 MHz to 445 MHz. I can't change to element
> positions but I can change their lengths. But by how much? -W9IP
>

That is a 3% change. Shorter. Check the VSWR to see what BW you are
getting. You maybe able to cut the driven element slightly, or just change
the postion of the gamma match. Since the rest of the antenna can't change
the element positions the antenna is stuck at 432 with the BW it has, which
may include 445. 3% is a small change, within mechanical tolerances, and the
gamma match may define where the best VSWR is.

# 3249. Re: New version 4nec2 freeware antenna optimizer

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-07 15:55:41 UTC
From: Dan Richardson <dwr@mailinator.com>
Message-ID: <qekbr0hquc3cshnro7nkrrkmpdmscbicnm@4ax.com>
Source record: 85645

On Tue, 07 Dec 2004 13:37:31 GMT, "Frank" <ve6cb@NOSPAM.telus.net>
wrote:

>Is 5.4.1 a stand-alone version?

Yes

>What is 4nec2X541.zip?

It is explained on the download page Arie gave.

>Is anybody working
>on a free Windows version of NEC4 (Providing you obtain the appropriate
>license from Lawrence Livermore)?

If you have purchased a license then you were provided with a copy of
NEC4 so that question is moot.

Danny, K6MHE
>
>Regards,
>
>Frank
>
>
><4nec2@gmx.net> wrote in message
>news:ee90361b.0412070455.4eee8627@posting.google.com...
>> Hello...,
>>
>> for those interested, just released the latest 5.4.1 new version for
>> the freeware 4nec2 antenna visualizer and optimizer.
>> (see http://www.si-list.org/swindex2.html and look for 4nec2)
>>
[SINP]
>> Arie.
>

# 3250. Re: Short anchor bolt problem

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-07 16:36:45 UTC
From: richardharrison@webtv.net
Message-ID: <824-41B5DC1D-422@storefull-3252.bay.webtv.net>
Source record: 85646

Gus wrote:
"These bolts are 12 inches in length 9 inches in the concrete and 3 inches extending for the tower base. If I guy the bottom section and use a fairly light antenna (HF quad) will I be okay?"

I am not a civil engineer, but I have erected countless towers. My degree is in electrical engineering.

Once the guys are satisfactorily in place, you have no need for nuts on the tower base bolts. There is no overturning force on the tower. It is resisted by the guywires. If you have a guywire accoident, you may be glad you have nuts on the tower base bolts. It`s happened to me and though the tower bent over like a fishing rod with a big catch, no harm was done. The manufacturer was in PA, Stainless Manufacturing, and the towers were ordinary tubular steel. Sawing open a tube showed a pristine interior. No rust.

Best regards, Richard Harrison, KB5WZI

# 3251. Re: New version 4nec2 freeware antenna optimizer

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-07 16:51:37 UTC
From: Frank <ve6cb@NOSPAM.telus.net>
Message-ID: <tcltd.50150$VL6.43418@clgrps13>
Source record: 85647

Thanks for the info. I was thinking in terms of Nittany Scientifics GNEC, a NEC4 based program. Did not realize if I get a license I would also get a copy of NEC4.

Regards,

Frank

"Dan Richardson" <dwr@mailinator.com> wrote in message news:qekbr0hquc3cshnro7nkrrkmpdmscbicnm@4ax.com...
> On Tue, 07 Dec 2004 13:37:31 GMT, "Frank" <ve6cb@NOSPAM.telus.net>
> wrote:
>
>>Is 5.4.1 a stand-alone version?
>
> Yes
>
>>What is 4nec2X541.zip?
>
> It is explained on the download page Arie gave.
>
>>Is anybody working
>>on a free Windows version of NEC4 (Providing you obtain the appropriate
>>license from Lawrence Livermore)?
>
> If you have purchased a license then you were provided with a copy of
> NEC4 so that question is moot.
>
> Danny, K6MHE
>>
>>Regards,
>>
>>Frank
>>
>>
>><4nec2@gmx.net> wrote in message
>>news:ee90361b.0412070455.4eee8627@posting.google.com...
>>> Hello...,
>>>
>>> for those interested, just released the latest 5.4.1 new version for
>>> the freeware 4nec2 antenna visualizer and optimizer.
>>> (see http://www.si-list.org/swindex2.html and look for 4nec2)
>>>
> [SINP]
>>> Arie.

>>
>

# 3252. Re: Celebrations !!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-07 17:10:58 UTC
From: microwaves@blueyonder.co.uk
Message-ID: <41b5e3fe.28791690@news.blueyonder.co.uk>
Source record: 85649

On Tue, 7 Dec 2004 00:12:00 +0000 (UTC), "Simon Smith"
<s.Smith@btinternet.com> wrote:

>I took my foundation license and morse exam to-day, and both were
>sucessful.
>All I have to do now is to: choose a transceiver - choose a tuner - choose
>an antenna - find someone to errect it - get a log book - and I'm sure there
>are lot's of other things ..... Anyway .... now I've shared my excitement
>with you all - I feel much better.
>John in Cornwall UK
>

Many congratulations JOhn..

Peter, G3PHO

## 3253. Re: Open wire source?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-07 17:29:10 UTC
From: Wes Stewart <n7ws_@_yahoo.com>
Message-ID: <1upbr0p46eu27sa6vlb53gprp5f1q8pk98@4ax.com>
Source record: 85650

On Mon, 06 Dec 2004 22:00:24 -0500, Mike Coslo <mcoslo@adelphia.net>
wrote:

|Cecil Moore wrote:
|
|> Roy Lewallen wrote:
|>
|>> My measurements, posted on this newsgroup some time ago and also
|>> published in QST's Technical Correspondence even longer ago, were for
|>> 300 ohm TV twinlead. The line was not lying on a wooden deck, nor did
|>> the measurements involve detergent of any kind.
|>
|>
|> Who was it who published loss data based on laying the ladder-line
|> on a wooden deck and/or squirting a wetting agent on it? Did you
|> use a wetting agent?
|
| The N7WS experiment was accomplished by coating the line with a wetting
|agent.

No, the line wasn't "coated" with a wetting agent, a drop of
Microclean was added to a spray bottle of deionized water.

|
| The wire was suspended horizontally, 12 feet of it.
|
| The author notes that it was "difficult to maintain uniform wetness"
|during the time it took to run the experiment. This would mean that he
|likely pooled water on the line.

No, I never said that either. For greater accuracy, 201
point-by-point measurements were made over the frequency range. This
takes some time, during which the moisture layer moved around (i.e.
was not uniform). This had the effect of corrupting the data
somewhat.

|
| And finally, I performed a little experiment. I have the ladder line
|from that antenna that was up for 2 years. Application of some water
|showed that it would bead up very nicely.

Bring your line out here to Arizona and leave it in the sun for two
years and re-run your experiment.

No, on second thought, don't come out here. There are too damn many
people moving here already and polluting the air with plasticizers.

At least Cecil left and went back to Texas.

|
| I just don't think the test conditions are very realistic. But it does
|tell me not to wash my ladder line with soap and water! ;^)

I stated, "The results of this are probably worse case and not
something that would necessarily be encountered in a typical
installation."

Also, if you would look at my "update" on my web site, you would see
the following:

"As an aside, I regret including so much about the wet condition. I
tried to make it clear that this was really worst case and not
something that would be seen in practice, but there has been so much
negative commentary about it, that it detracts from the point I was
trying to make."

I'll add you and Cecil to my list.

N7WS

# 3254. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-07 17:36:50 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cp4pni$c98$1@hercules.btinternet.com>
Source record: 85653

> Perusing all the references to VSWR in Chipman's book, you will find
> that the source is not mentioned at all. Only the load reflection
> coefficient
> and the transmission line characteristics are needed to calculate VSWR.

==========

Cecil, the trouble with 'bibles' is that they are so easily misquoted.
It's always better to rely only on your 'own' knowledge.

Only the MAGNITUDE of the reflection coefficient is needed to calculate SWR.
The phase angle is superfluous.

Nothing else whatever need be known about the line. Not even Zo, the
terminating impedance, and certainly not the generator impedance.

Conversely, the SWR will tell you virtually nothing about what's going on on
the line until you include and add to it what you already know anyway. You
can't even work back to find the reflection coefficint because of the loss
of the angle information.

The reflection coefficient is of no use to anybody without its angle,
except, of course to calculate the SWR.

Abolish SWR meters!
---
Reg.

# 3255. Re: Question re: running balanced line - shielded

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-07 17:36:51 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cp4pni$c98$2@hercules.btinternet.com>
Source record: 85651

> I am not trying to be difficult,

==========

There's no need to try - you don't appear to have any problems.

Where did you receive your training?

# 3256. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-07 17:38:20 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <gmobr0l9a0ltlr4k75gka3mg2um17d00ja@4ax.com>
Source record: 85652

On Tue, 07 Dec 2004 13:02:01 GMT, "Frank" <ve6cb@NOSPAM.telus.net>
wrote:
>What is the source Z of a solid state power amplifier

HI Frank,

Commonly 1.5 to 3 Ohms resistive transformed to 35 Ohms to 70 Ohms at the Connector.

>or even a tube amplifier?

Much greater variation here, X KOhms resistive transformed to 50 Ohms at the connector.

Such are ballpark figures, as an average over a full cycle, at rated power, for Class AB operation in a Push-Pull configuration. This typically results in an efficiency on the order of 40% to 60%.

The nut of the matter about "Source Z matters" is that if your source were at either of those untransformed Zs that are native to transistors or tubes, then almost all their power would be reflected back into them at the antenna connector's connection to a 50 Ohm antenna system.

The argument of the matter about "Source Z matters" is that if your source were at either of those untransformed Zs that are native to transistors or tubes, then reflections from the load (once you got some power into line) would encounter this same massive mismatch and re-reflect. There is a naive argument here (all too common) that this is "exactly" what happens. My pointed observation to those statements is "why would anyone need a tuner then?"

The refinement of the matter about "Source Z matters" is that if your source were at either of those untransformed Zs that are native to transistors or tubes, then with any mismatch at the load you haven't got a clue what power is being applied OR reflected. This is called the Mismatch Uncertainty. It is another indicator of the failure of the argument mentioned in the previous paragraph.

The relevance of the matter about "Source Z matters" here is that the references that Bob used to measure and model line loss supports this thesis. It presents an opportunity to observe how a line would suffer additional loss through being mismatched at both ends. In this regard, it would be due to the fictive argument for Source Z being very much lower or very much higher than 50 Ohms (in other words, lacking the transform circuitry commonly found in commercial gear). When the loss is not observed, the fiction is shown.

73's
Richard Clark, KB7QHC

# 3257. Re: Open wire source?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-07 17:55:21 UTC
From: Dan Richardson <dwr@mailinator.com>
Message-ID: <jcrbr0l6lcjp0bm7jbor4q2agk1f1he03c@4ax.com>
Source record: 85654

On Tue, 07 Dec 2004 10:29:10 -0700, Wes Stewart <n7ws_@_yahoo.com>
wrote:

>"As an aside, I regret including so much about the wet condition. I
>tried to make it clear that this was really worst case and not
>something that would be seen in practice, but there has been so much
>negative commentary about it, that it detracts from the point I was
>trying to make."

Actually, Wes you left out a very important consideration for those of
us living is damp areas.... Moss!

Danny, K6MHE

# 3258. Re: Question re: running balanced line - shielded

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-07 17:56:10 UTC
From: "JimK2TL@gmail.com" <JimK2TL@gmail.com>
Message-ID: <1102442170.885876.197590@z14g2000cwz.googlegroups.com>
Source record: 85655

Now that was helpful !
Maybe you should sign up with the local radio club as an Elmer?
No one is forceing you to read my posts or help me.
Thanks anyway.

# 3259. Re: Question re: running balanced line - shielded

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-07 18:32:10 UTC
From: Bob Miller <rmiller47@satx.rr.com>
Message-ID: <0jtbr0pj8haosdk0u2o14q8d9tvca7hqvp@4ax.com>
Source record: 85656

On 7 Dec 2004 09:56:10 -0800, "JimK2TL@gmail.com" <JimK2TL@gmail.com>
wrote:

>Now that was helpful !
>Maybe you should sign up with the local radio club as an Elmer?
>No one is forceing you to read my posts or help me.
>Thanks anyway.

Jim, I believe you mentioned you were considering the Palstar balanced
tuner -- I looked at the "inside" picture of it, and the variable
inductors look suspiciously exactly alike the variable inductor in my
mfj-989c unit. I'm not saying that's good or bad -- just thought I'd
mention it...

Bob
k5qwg

# 3260. Re: FS: sma-to-bnc custom fit rubber covered antenna adapter

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-07 18:42:53 UTC
From: Me <Me@shadow.orgs>
Message-ID: <Me-2C2C95.09430607122004@netnews.worldnet.att.net>
Source record: 85657
Cross-posted to: rec.radio.swap,rec.radio.scanner,rec.radio.amateur.equipment,rec.radio.amateur.antenna

In article <R9GdnUdDnsvwfincRVn-qA@adelphia.com>,
Dave Bushong <db@9y.com> wrote:

> Me wrote:
> > In article <KpydnRuUA5zH-y7cRVn-og@adelphia.com>,
> > Dave Bushong <db@9y.com> wrote:
> >
> >
> >>That is actually not quite true. On an HT, the transmission line ends
> >>somewhere inside the radio. The SMA/BNC connector is part of the
> >>antenna proper. If you add a sleeve (as the previous poster, "dixon",
> >>says), you will be changing the antenna itself. ASCII schematic follows:
> >>
> >>before:
> >
> >
> > I have been in the communications field for 35 years, and I have NEVER
> > seen a SMA/BNC antenna connector on a Handheld Radio that didn't
> > have a the RF Ground connected to the ground side of the connector.
> > there are some that use different antenna connectors than SMA/TNC?BNC
> > that are singleended but I have never seen one used that way.
> > CFR (Call for Rference) Tell us all which radios your talking about.
> > Make, Model, Version.
> >
> >
> > Me
>
> You missed my point, I think. The counterpoise is the (poor) metal of
> the radio and of the user's hand. Any connector/adapter will be coaxial
> and probably low loss, but the counterpoise stays put. The feedpoint
> rises but the "ground" plane does not. For an SMA adapter, it might not
> be enough to hear a difference, but the radiated signal will be worse
> when using such an adapter.
>
> 73,
> Dave

No, you didn't read roy's post on how feedline and antennas systems
work......

Me

# 3261. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-07 18:57:25 UTC
From: Frank <ve6cb@NOSPAM.telus.net>
Message-ID: <p2ntd.50167$VL6.25582@clgrps13>
Source record: 85658

Hi Richard,

With solid state power amplifier design; the criteria was always that you must present an impedance, to the output devices, such that the desired output power is delivered to the load (while not exceeding device dissipation). Any attempt to optimally match the load to the source impedance will result in over-dissipation, and probable destruction of the source device -- probably by excess collector/drain current. If you remember, Motorola used to publish Smith charts of the output impedance for their power amplifier devices. Talking to one of Motorola's design engineers; I asked "How do you derive these Charts". His answer was; "We use a matching network and adjust it for the required output power, then measure the input impedance of the network. The complex conjugate of this impedance is then defined as the source Z". The fact is these data are not the actual source Z of the device, but are probably considerable higher. I don't remember anybody actually trying to measure the large signal S parameters of solid state devices.

I seem to remember that tube amplifiers were designed based on the source impedance calculated as 2Vp/Ip, (Where Vp is the plate voltage, and Ip the plate current), and have no idea how, or if, it relates to the actual source Z of the device. Anyway, I am not convinced that source Z is important. Where I think some confusion may have come from is Hewlett Packard's 12 term error correction analysis derived for vector network analyzers. Here source Z is important because measurements are made in both directions.

I have some conceptual problems with standing waves, and reflected power, although I know that the solution to the wave equation shows a forward and reverse traveling wave. Both with uniform plane waves, and in wire transmission lines. Transmission lines can also be analyzed as a simple passive network without regard to "Reflected power".

I am sure you will rip my comments to shreds, that's ok, as I may learn something.

73,

Frank

"Richard Clark" <kb7qhc@comcast.net> wrote in message news:gmobr0l9a0ltlr4k75gka3mg2um17d00ja@4ax.com...
> On Tue, 07 Dec 2004 13:02:01 GMT, "Frank" <ve6cb@NOSPAM.telus.net>
> wrote:
>>What is the source Z of a solid state power amplifier
>
> HI Frank,

>
> Commonly 1.5 to 3 Ohms resistive transformed to 35 Ohms to 70 Ohms at
> the Connector.
>
>>or even a tube amplifier?
>
> Much greater variation here, X KOhms resistive transformed to 50 Ohms
> at the connector.
>
> Such are ballpark figures, as an average over a full cycle, at rated
> power, for Class AB operation in a Push-Pull configuration. This
> typically results in an efficiency on the order of 40% to 60%.
>
> The nut of the matter about "Source Z matters" is that if your source
> were at either of those untransformed Zs that are native to
> transistors or tubes, then almost all their power would be reflected
> back into them at the antenna connector's connection to a 50 Ohm
> antenna system.
>
> The argument of the matter about "Source Z matters" is that if your
> source were at either of those untransformed Zs that are native to
> transistors or tubes, then reflections from the load (once you got
> some power into line) would encounter this same massive mismatch and
> re-reflect. There is a naive argument here (all too common) that this
> is "exactly" what happens. My pointed observation to those statements
> is "why would anyone need a tuner then?"
>
> The refinement of the matter about "Source Z matters" is that if your
> source were at either of those untransformed Zs that are native to
> transistors or tubes, then with any mismatch at the load you haven't
> got a clue what power is being applied OR reflected. This is called
> the Mismatch Uncertainty. It is another indicator of the failure of
> the argument mentioned in the previous paragraph.
>
> The relevance of the matter about "Source Z matters" here is that the
> references that Bob used to measure and model line loss supports this
> thesis. It presents an opportunity to observe how a line would suffer
> additional loss through being mismatched at both ends. In this
> regard, it would be due to the fictive argument for Source Z being
> very much lower or very much higher than 50 Ohms (in other words,
> lacking the transform circuitry commonly found in commercial gear).
> When the loss is not observed, the fiction is shown.
>
> 73's
> Richard Clark, KB7QHC

# 3262. Re: Question re: running balanced line - shielded

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-07 19:05:15 UTC
From: "JimK2TL@gmail.com" <JimK2TL@gmail.com>
Message-ID: <1102446315.748196.38890@f14g2000cwb.googlegroups.com>
Source record: 85659

Thanks for that info..I would consider that as "bad"..Hi.
But the Palstar reviews that I have read all seem to be quite
favorable.
I am now using an old Daiwa tuner that does a real nice job, but it is
old and uses small 365 mmf broadcast type variables, a dainty looking
coil, and cheap push switches for antenna selection. The cross needle
metering seems to be OK.
I just want to upgrade to something built a bit better, and I am not
fond of Mighty Fine Junk ( no offense intended ), even if they are the
most popular in the world.
I probably will go for a Palstar, but I can't decide on a T match model
or the balanced tuner.
Thanks for the reply.
Jim

# 3263. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-07 20:24:33 UTC
From: Jim Kelley <jwkelley@nospam.edu>
Message-ID: <cp53mf$ljl$1@news.service.uci.edu>
Source record: 85662

Richard Clark wrote:

> This is called
> the Mismatch Uncertainty.

> The relevance of the matter about "Source Z matters" here is that the
> references that Bob used to measure and model line loss supports this
> thesis. It presents an opportunity to observe how a line would suffer
> additional loss through being mismatched at both ends. In this
> regard, it would be due to the fictive argument for Source Z being
> very much lower or very much higher than 50 Ohms (in other words,
> lacking the transform circuitry commonly found in commercial gear).
> When the loss is not observed, the fiction is shown.

"It" should be called Grammatical Uncertainty.

73, AC6XG

# 3264. Re: Open wire source?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-07 20:40:13 UTC
From: Wes Stewart <n7ws_@_yahoo.com>
Message-ID: <cs4cr0dcqh20su2ch61b0kd9u27rs01r5e@4ax.com>
Source record: 85661

On Tue, 07 Dec 2004 09:55:21 -0800, Dan Richardson
<dwr@mailinator.com> wrote:

|On Tue, 07 Dec 2004 10:29:10 -0700, Wes Stewart <n7ws_@_yahoo.com>
|wrote:
|
|>"As an aside, I regret including so much about the wet condition. I
|>tried to make it clear that this was really worst case and not
|>something that would be seen in practice, but there has been so much
|>negative commentary about it, that it detracts from the point I was
|>trying to make."
|
|Actually, Wes you left out a very important consideration for those of
|us living is damp areas.... Moss!

Yes, I remember.

For those that are interested, Danny lives amongst the Redwoods on the
N. California coast and he sent me a length of window line that he had
taken down that was covered in moss.

I had hoped to get set up to measure it but the 10% RH in Tucson
conspired to kill the stuff.

Nevertheless, I suspect that it was no longer a low-loss line but a
high-moss line instead.

# 3265. Re: Question re: running balanced line - shielded

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-07 20:41:09 UTC
From: - XC - <nobody@home.net>
Message-ID: <qMydnYnYfZT4iCvcRVn-oQ@comcast.com>
Source record: 85660

<JimK2TL@gmail.com> wrote in message
news:1102433909.868314.166150@z14g2000cwz.googlegroups.com...
> The question is, why
> then are remote baluns promoted as the solution to this common problem?

Well, there's more than one way to skin a cat, a remote balun wouldn't be bad if it fed the balanced feedline of a resonant antenna which is used at its resonant frequency. But if you want to operate the antenna everywhere then you don't want a balun feeding the open wire, weather it be at the antenna or on the antenna side of a shack side antenna tuner.

Go to Cebiks index section, in particular the Transmission Lines, Impedance Coupling, and Construction section, - there's lots of reading there on antenna tuner matching issues including a great tutorial :^)
http://www.cebik.com/radio.html

> And, is the coax twinlead and a balnaced tuner a better choice than a
> short lenght of very low loss coax, a good current balun, and a T
> match?

Oh Yes. If you keep everthing balanced and then use a GOOD balanced antenna tuner things will work out fine.
Avoid any balanced tuner design that has a matching network followed by a ferrite core balun on the *antenna feedline* end.
These types of baluns are meant to be used close to their design inpedances, not when connected to a multiband antenna which is going to have wild variations in Z.

73,
John

# 3266. Re: Open wire source?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-07 21:23:58 UTC
From: Mike Coslo <mcoslo@adelphia.net>
Message-ID: <KqadnaMqxunwgivcRVn-pA@adelphia.com>
Source record: 85663

Wes Stewart wrote:
> On Mon, 06 Dec 2004 22:00:24 -0500, Mike Coslo <mcoslo@adelphia.net>
> wrote:
>
> |Cecil Moore wrote:
> |
> |> Roy Lewallen wrote:
> |>
> |>> My measurements, posted on this newsgroup some time ago and also
> |>> published in QST's Technical Correspondence even longer ago, were for
> |>> 300 ohm TV twinlead. The line was not lying on a wooden deck, nor did
> |>> the measurements involve detergent of any kind.
> |>
> |>
> |> Who was it who published loss data based on laying the ladder-line
> |> on a wooden deck and/or squirting a wetting agent on it? Did you
> |> use a wetting agent?
> |
> | The N7WS experiment was accomplished by coating the line with a wetting
> |agent.
>
> No, the line wasn't "coated" with a wetting agent, a drop of
> Microclean was added to a spray bottle of deionized water.

Wetting agent is as wetting agent does. You don't need much, but its
effects are dramatic.

> |
> | The wire was suspended horizontally, 12 feet of it.
> |
> | The author notes that it was "difficult to maintain uniform wetness"
> |during the time it took to run the experiment. This would mean that he
> |likely pooled water on the line.
>
> No, I never said that either.

http://users.triconet.org/wesandlinda/ladder_line.pdf

Is my source.

The quoted text:

The reason for lower accuracy of we measurements is that it was
difficult to maintain uniform "wetness" during the several seconds it
took to make the measurements. Nevertheless, this lack of control is not
much different than the actual conditions a line might encounter in the

field.

end quote.

I'm assuming that you tried to maintain uniform wetness, hence the
judgment that it was difficult to do so.

For greater accuracy, 201
> point-by-point measurements were made over the frequency range. This
> takes some time, during which the moisture layer moved around (i.e.
> was not uniform). This had the effect of corrupting the data
> somewhat.
>
> |
> | And finally, I performed a little experiment. I have the ladder line
> |from that antenna that was up for 2 years. Application of some water
> |showed that it would bead up very nicely.
>
> Bring your line out here to Arizona and leave it in the sun for two
> years and re-run your experiment.

> No, on second thought, don't come out here. There are too damn many
> people moving here already and polluting the air with plasticizers.
> At least Cecil left and went back to Texas.
>
> |
> | I just don't think the test conditions are very realistic. But it does
> |tell me not to wash my ladder line with soap and water! ;^)
>
> I stated, "The results of this are probably worse case and not
> something that would necessarily be encountered in a typical
> installation."
>
> Also, if you would look at my "update" on my web site, you would see
> the following:
>
> "As an aside, I regret including so much about the wet condition. I
> tried to make it clear that this was really worst case and not
> something that would be seen in practice, but there has been so much
> negative commentary about it, that it detracts from the point I was
> trying to make."
>
> I'll add you and Cecil to my list.

Gee Wes, I'm not trying to make a big argument with you! The experiment
was well conducted. But I do disagree with the initial assumptions. I
think wetting agent on a horizontally placed line is indeed worst case,
but it is a worst case that is not likely to ever happen in real life.
As you pretty much note.

And you are welcome to visit us here in beautiful Central PA any time
you like! 8^)

- Mike KB3EIA -

# 3267. Re: Open wire source? - Re Loss Due to Rain and Dirt

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-07 21:30:27 UTC
From: Irv Finkleman <finkirv@shaw.ca>
Message-ID: <41B62137.FA2A0B21@shaw.ca>
Source record: 85664

I once decided to try 300 ohm twinlead on my inverted Vee. I picked up
the cheapest stuff I could get from Radio Scrap and dropped it from the
vertex at about 50' down into the shack. It worked so well that it stayed
up for thirteen years.

I never cleaned it, and it went through all kinds of weather including
rain, freezing rain, snow, and at times was coated with hoarfrost. I never
noticed any degradation due to rain or snow.

I didn't do any measurements on it, and perhaps tweaked the tuner once
in a while, but in my opinion it was the best antenna I ever had (discounting
beams, mag loops, and verticals).

It went up in 83 and came down in 96 -- clean as a whistle, and was cut into
j-poles and other smaller antennas.

Anecdotal perhaps, for what it's worth...

Irv VE6BP

I still have a bit of it in my shop waiting for some future requirement.

--
---
Diagnosed Type II Diabetes March 5 2001
Beating it with diet and exercise!
297/215/210 (to be revised lower)
58"/43"(!)/44" (already lower too!)
---
Visit my HomePage at http://members.shaw.ca/finkirv/index.html
Visit my Baby Sofia website at http://members.shaw.ca/finkirv4/index.htm
Visit my OLDTIMERS website at http://members.shaw.ca/finkirv5/index.htm
---
Irv Finkleman,
Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
Calgary, Alberta, Canada

# 3268. Re: Open wire source? - Re Loss Due to Rain and Dirt

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-07 21:48:54 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10rc9ad7pb4nnc9@corp.supernews.com>
Source record: 85665

Most people wouldn't notice if a few dB of loss come and go, unless it's very abrupt. (And even then, it might not be noticed except under unusual or very low-signal conditions.) Ionospheric conditions cause much greater changes. Unless we have a solid reference antenna for comparison, there's no way most of us would ever know if a few dB of loss was coming and going. And, most people wouldn't care anyway.

When we pigeonhole antennas into the binary categories of "works" and "doesn't work", there's a lot of room for slop in where the dividing line is drawn.

Roy Lewallen, W7EL

Irv Finkleman wrote:
> I once decided to try 300 ohm twinlead on my inverted Vee. I picked up
> the cheapest stuff I could get from Radio Scrap and dropped it from the
> vertex at about 50' down into the shack. It worked so well that it stayed
> up for thirteen years.
>
> I never cleaned it, and it went through all kinds of weather including
> rain, freezing rain, snow, and at times was coated with hoarfrost. I never
> noticed any degradation due to rain or snow.
>
> I didn't do any measurements on it, and perhaps tweaked the tuner once
> in a while, but in my opinion it was the best antenna I ever had (discounting
> beams, mag loops, and verticals).
>
> It went up in 83 and came down in 96 -- clean as a whistle, and was cut into
> j-poles and other smaller antennas.
>
> Anecdotal perhaps, for what it's worth...
>
> Irv VE6BP
>
> I still have a bit of it in my shop waiting for some future requirement.
>

# 3269. Re: Changing design frequency of K2RIW 432 MHz yagi

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-07 22:20:26 UTC
From: eat_spam@nlsa.com
Message-ID: <1102458026.743892.264370@z14g2000cwz.googlegroups.com>
Source record: 85670

Thanks - I wasn't too worried about the SWR node, but rather the gain peak. I figured that I could shave off a millimeter or two (or three?) from each element to raise the frequency of maximum gain. Not having any yagi-modeling software, it wasn't clear to me what would happen. Maybe it's not worth the effort.

# 3270. Re: Changing design frequency of K2RIW 432 MHz yagi

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-07 22:21:09 UTC
From: eat_spam@nlsa.com
Message-ID: <1102458069.725226.118880@c13g2000cwb.googlegroups.com>
Source record: 85669

Thanks - I wasn't too worried about the SWR node, but rather the gain peak. I figured that I could shave off a millimeter or two (or three?) from each element to raise the frequency of maximum gain. Not having any yagi-modeling software, it wasn't clear to me what would happen. Maybe it's not worth the effort.

## 3271. Re: Open wire source?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-07 23:30:13 UTC
From: Wes Stewart <n7ws_@_yahoo.com>
Message-ID: <k3ecr0l35bm3g9eatc3tsenb555srdicqv@4ax.com>
Source record: 85666

On Tue, 07 Dec 2004 16:23:58 -0500, Mike Coslo <mcoslo@adelphia.net>
wrote:

[snip]

|> | The author notes that it was "difficult to maintain uniform wetness"
|> |during the time it took to run the experiment. This would mean that he
|> |likely pooled water on the line.
|>
|> No, I never said that either.
|
|
|http://users.triconet.org/wesandlinda/ladder_line.pdf
|
|Is my source.

I'm familiar with that source.
|
|
|The quoted text:
|
|The reason for lower accuracy of we measurements is that it was
|difficult to maintain uniform "wetness" during the several seconds it
|took to make the measurements. Nevertheless, this lack of control is not
|much different than the actual conditions a line might encounter in the
|field.
|
|end quote.
|
|
| I'm assuming that you tried to maintain uniform wetness, hence the
|judgment that it was difficult to do so.

As I said previously (below), "uniform" in this case meant "unchanging
during the measurement". With an A/C duct blowing dry air on the
sample, it was difficult to do.
|
|
| For greater accuracy, 201
|> point-by-point measurements were made over the frequency range. This
|> takes some time, during which the moisture layer moved around (i.e.
|> was not uniform). This had the effect of corrupting the data
|> somewhat.
|>
|> | I just don't think the test conditions are very realistic. But it does

|> |tell me not to wash my ladder line with soap and water! ;^)

I guess I fail to understand what "realistic" conditions should apply. Should I have taken a $250K analyzer out to your back yard or Cecil's? [g]

The situation was thus:

I had a day job, trying to keep AMRAAM, TOW and Tomahawk missiles flying. If I and the equipment weren't otherwise tied up, I could make a few "personal" measurements.

I didn't measure only one sample, but five different lines, including the open wire control.

The measurements were made in a 16' x 20' shielded room with an 8' ceiling. This, the equipment placement and the need to access both ends of the lines, unfortunately limited the length of the samples and other factors dictated the frequency range that was usable.

The lines had to be taut, since the open wire line had no spacers other than at the ends.

Horizontal seemed logical since any other orientation brought the ends closer to the metal walls of the room or allowed the open-wire conductors to sag toward each other.

I started with no, zip, nada, zero "initial assumptions", other than the stated belief that hams tend to think that these lines are lossless in almost any application and that I could make decent measurements and find out. I had no ax to grind. I personally don't use window or open-wire lines, preferring Heliax and resonant antennas instead.

Wetting the lines was almost an afterthought. I remembered Roy's Technical Correspondence on the issue and other anecdotal reports and thought I would take a quick look. (With Roy's permission, I will put a .pdf of this on my site)

|>
|> I stated, "The results of this are probably worse case and not
|> something that would necessarily be encountered in a typical
|> installation."
|>
|> Also, if you would look at my "update" on my web site, you would see
|> the following:
|>
|> "As an aside, I regret including so much about the wet condition. I
|> tried to make it clear that this was really worst case and not
|> something that would be seen in practice, but there has been so much
|> negative commentary about it, that it detracts from the point I was
|> trying to make."
|>

|> I'll add you and Cecil to my list.
|
| Gee Wes, I'm not trying to make a big argument with you! The experiment
|was well conducted. But I do disagree with the initial assumptions. I
|think wetting agent on a horizontally placed line is indeed worst case,
|but it is a worst case that is not likely to ever happen in real life.
|As you pretty much note.

Yeah, pretty much.

| And you are welcome to visit us here in beautiful Central PA any time
|you like! 8^)

Thanks but I spent a week in PA once going to a corona measurement
course. Flew all day on Easter Sunday to get there and when I got
settled into the hotel I was greated by and experienced my first
earthquake. I don't know whether to come back or not. [g]

# 3272. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-07 23:39:59 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <otn9r0hul0ogaqqssb83vvkhqslr8690jm@4ax.com>
Source record: 85667

On Tue, 07 Dec 2004 18:57:25 GMT, "Frank" <ve6cb@NOSPAM.telus.net>
wrote:

> "We
>use a matching network and adjust it for the required output power, then
>measure the input impedance of the network. The complex conjugate of this
>impedance is then defined as the source Z". The fact is these data are not
>the actual source Z of the device, but are probably considerable higher. I
>don't remember anybody actually trying to measure the large signal S
>parameters of solid state devices.

Hi Frank,

I've heard variations of this before, and other's admonitions that Motorola admitted to a huge specification mistake in the early 90s and had since mended their ways. When I asked for these updated references, I ended up quoting verbatim from those mended teachings, that, yes, Source Z has always been what was specified before (...1990s), it was the same then (1990s), and it is the same now (1990s...).

I've just returned from a nanotech seminar this afternoon whose subject was organic thin film transistors. Dr. Daniel Frisbie - Depts. of Chemical Engineering and Mat. Science - University of Minnesota, offered that this new generation of research confirmed that the Resistance of the transistor channel (similar to a MOSFET) easily dominated all other sources of impedance. They also tested for junction offsets (valence band - conduction band potentials) and found they were negligible. The electron mobility wasn't the hottest thing going (semiconducting carbon nanotubes easily dominate), but there were no surprises. One of the EEs in the crowd easily allowed the OTFTs showed no chemical/physical/electrical departures from expectations (except for his concern for Schottky bias).

The technique you describe above is called a transfer standard. Unless there is some mysterious shift in the space-time continuum to account for this operation being invalid, it fully and accurately describes the unit under test. Most arguments that lean on this indirect measure being suspect would have us counting electrons instead of using an Ammeter. Then we would argue about the counter and its incapability of being a direct measure, but simply another abstraction. Inevitably the arguments spiral down to the retort "you are not going to change my mind."

I am already in the middle of the science that does real electron counting, literally, where one can find what is called the Coulomb

barrier. For carbon nanotubes, things are so small that one electron in a "wire" cannot allow another in with it to share the conductor. Nothing like that is going on in our rigs.

73's
Richard Clark, KB7QHC

# 3273. Re: Open wire source? - Re Loss Due to Rain and Dirt

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-08 00:13:57 UTC
From: Irv Finkleman <finkirv@shaw.ca>
Message-ID: <41B6478A.5C2221D5@shaw.ca>
Source record: 85668

Roy Lewallen wrote:
>
> Most people wouldn't notice if a few dB of loss come and go, unless it's
> very abrupt. (And even then, it might not be noticed except under
> unusual or very low-signal conditions.) Ionospheric conditions cause
> much greater changes. Unless we have a solid reference antenna for
> comparison, there's no way most of us would ever know if a few dB of
> loss was coming and going. And, most people wouldn't care anyway.
>
> When we pigeonhole antennas into the binary categories of "works" and
> "doesn't work", there's a lot of room for slop in where the dividing
> line is drawn.
>
> Roy Lewallen, W7EL
>
I agree Roy. I'm the stick it up in the air and if I work lots of stations
and hear things most of the other local stations can't then I'm a happy camper.

I'll settle for all the space between 'works' and 'doesn't work' -- much
less stress and lots more fun. I guess thats why they say 'Ignorance is
Bliss' or 'What they don't know won't hurt them'

73

--
---
Diagnosed Type II Diabetes March 5 2001
Beating it with diet and exercise!
297/215/210 (to be revised lower)
58"/43"(!)/44" (already lower too!)
---
Visit my HomePage at http://members.shaw.ca/finkirv/index.html
Visit my Baby Sofia website at http://members.shaw.ca/finkirv4/index.htm
Visit my OLDTIMERS website at http://members.shaw.ca/finkirv5/index.htm
---
Irv Finkleman,
Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
Calgary, Alberta, Canada

# 3274. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-08 01:25:07 UTC
From: Frank <ve6cb@NOSPAM.telus.net>
Message-ID: <TJstd.98$Ya4.91@edtnps84>
Source record: 85671

Hi Richard, thanks for your comments. My contacts with Motorola were in the late 80s, so does put it in the correct time frame, and does not surprise me. I know I thought of it as a not very elegant method. The particular device I was thinking of was a dual push-pull (could have been parallel) module designed for about 200 - 500 MHz, at about 50 W. As far as I am concerned Motorola has gone down hill since they used to produce those thick RF device data books. Not to mention 4DTV. During that same period everybody was using a technique known as "Load-pull" for power amplifier design. I was also involved, though not very deeply, in the design of 100 W to 1 kW HF solid state linear amps, where I was told the same story about not attempting to actually match the bipolar devices, but simply present an appropriate impedance to obtain the output power; otherwise the device parameters will be exceeded. I am far from an expert in the field of power amplifier design, but it would be interesting to know if high power transistors are now characterized by large signal S parameters. This may sound really dumb, but how about feeding 100 W back into a transistor amplifier, and measuring the return loss. It would at least give you the large signal magnitude of S22.

You are starting to loose me when it comes to semi-conductor physics, as it was not a field that I was especially interested in. I think the only journals that I may have read about "nanotubes" may have been Scientific American. I have also never had any experience with power FETs.

73,

Frank

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:otn9r0hul0ogaqqssb83vvkhqslr8690jm@4ax.com...
> On Tue, 07 Dec 2004 18:57:25 GMT, "Frank" <ve6cb@NOSPAM.telus.net>
> wrote:
>
>> "We
>>use a matching network and adjust it for the required output power, then
>>measure the input impedance of the network. The complex conjugate of this
>>impedance is then defined as the source Z". The fact is these data are
>>not
>>the actual source Z of the device, but are probably considerable higher.
>>I
>>don't remember anybody actually trying to measure the large signal S
>>parameters of solid state devices.
>
> Hi Frank,
>

> I've heard variations of this before, and other's admonitions that
> Motorola admitted to a huge specification mistake in the early 90s and
> had since mended their ways. When I asked for these updated
> references, I ended up quoting verbatim from those mended teachings,
> that, yes, Source Z has always been what was specified before
> (...1990s), it was the same then (1990s), and it is the same now
> (1990s...).
>
> I've just returned from a nanotech seminar this afternoon whose
> subject was organic thin film transistors. Dr. Daniel Frisbie -
> Depts. of Chemical Engineering and Mat. Science - University of
> Minnesota, offered that this new generation of research confirmed that
> the Resistance of the transistor channel (similar to a MOSFET) easily
> dominated all other sources of impedance. They also tested for
> junction offsets (valence band - conduction band potentials) and found
> they were negligible. The electron mobility wasn't the hottest thing
> going (semiconducting carbon nanotubes easily dominate), but there
> were no surprises. One of the EEs in the crowd easily allowed the
> OTFTs showed no chemical/physical/electrical departures from
> expectations (except for his concern for Schottky bias).
>
> The technique you describe above is called a transfer standard.
> Unless there is some mysterious shift in the space-time continuum to
> account for this operation being invalid, it fully and accurately
> describes the unit under test. Most arguments that lean on this
> indirect measure being suspect would have us counting electrons
> instead of using an Ammeter. Then we would argue about the counter
> and its incapability of being a direct measure, but simply another
> abstraction. Inevitably the arguments spiral down to the retort "you
> are not going to change my mind."
>
> I am already in the middle of the science that does real electron
> counting, literally, where one can find what is called the Coulomb
> barrier. For carbon nanotubes, things are so small that one electron
> in a "wire" cannot allow another in with it to share the conductor.
> Nothing like that is going on in our rigs.
>
> 73's
> Richard Clark, KB7QHC

# 3275. Tiger Tails Was:Re: FS: sma-to-bnc custom fit rubber covered antenna adapter

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-08 01:43:16 UTC
From: Lee Hopper <leehopp@centurytel.net>
Message-ID: <41B65C34.5020001@centurytel.net>
Source record: 85572

Roy Lewallen wrote:
>
> Finally, consider an HT... The other half of the antenna -- NOT a
> "counterpoise", but a real part of the antenna of at least equal
> importance to the intended part -- is the outside of the sleeve, and the
> outside of the HT, your hand, and your body...

Roy & group:

I have heard of holding a quarter-wavelength of wire next to the HT
while transmitting. This has been called a "tiger tail" and is supposed
to improve you radiated signal.
<http://adjunct.diodon349.com/Radio/ht_tiger_tails_and_other_good_info.htm>

Some attach this to the bnc at its base - others to the belt clip -
still others just hold it beside the radio as they transmit.

Do you think it might do any good?

Lee H, NB7F

# 3276. Re: Question re: running balanced line - shielded

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-08 01:46:49 UTC
From: "JimK2TL@gmail.com" <JimK2TL@gmail.com>
Message-ID: <1102470409.604020.67330@f14g2000cwb.googlegroups.com>
Source record: 85573

Good info! I think Palstar has a tuner that places a 1:1 balun on the
input or transmitter side of a T match tuner. I think I will look
into that one and use a short length of coax twinlead instead of the
remote balun.
Thanks for the help!
Jim

# 3277. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-08 01:51:21 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <48mcr0lli3e6o36re4fm07bqrr8d60h8uc@4ax.com>
Source record: 85574

On Wed, 08 Dec 2004 01:25:07 GMT, "Frank" <ve6cb@NOSPAM.telus.net>
wrote:

>I was told the same story about
>not attempting to actually match the bipolar devices, but simply present an
>appropriate impedance to obtain the output power; otherwise the device
>parameters will be exceeded.

Hi Frank,

There used to be an old, old song: "Yes dear you can go swimming, but
don't go near the water."

Even at DC, you cannot design to the capacity of a transistor, because
the combination of all capacities exceed the "safe operating area."
However, this does nothing to actually change any noted specification.

I've never seen ANY power amplifier for retail trade conjugately
matched to its Source Z. But then I have never seen ANY amplifier for
retail trade designed to be low noise, low distortion, high stability,
or any of the more common qualities that "could be" designed in, if it
weren't for cost and the perception of no particular boon to the
purchaser. Who needed low distortion when you could throw a cheap
filter on the output? Who need low noise when atmospherics dominated
such issues? Who needed stability when the monkey twisting the knob
would correct it as a form of entertainment? Safety margin? Add a
fan to the heatsink - $pecial option.

>This may
>sound really dumb, but how about feeding 100 W back into a transistor
>amplifier, and measuring the return loss. It would at least give you the
>large signal magnitude of S22.

This was done decades ago - it is called an active load. I used to
calibrate them too. Guess what, it was specified and it met spec at
50 Ohms (and at least 100W).

73's
Richard Clark, KB7QHC

# 3278. Re: Question re: running balanced line - shielded

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-08 02:02:00 UTC
From: "JimK2TL@gmail.com" <JimK2TL@gmail.com>
Message-ID: <1102471320.719930.170950@f14g2000cwb.googlegroups.com>
Source record: 85576

Good info! I think Palstar has a tuner that places a 1:1 balun on the
input or transmitter side of a T match tuner. I think I will look
into that one and use a short length of coax twinlead instead of the
remote balun.
Thanks for the help!
Jim

# 3279. Re: Tiger Tails Was:Re: FS: sma-to-bnc custom fit rubber covered antenna adapter

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-08 02:02:02 UTC
From: dplatt@radagast.org
Message-ID: <10rco4qbius0a3c@corp.supernews.com>
Source record: 85575

In article <41B65C34.5020001@centurytel.net>,
Lee Hopper <"leehopp [at] centurytel [dot] net"> wrote:

>I have heard of holding a quarter-wavelength of wire next to the HT
>while transmitting. This has been called a "tiger tail" and is supposed
>to improve you radiated signal.
><http://adjunct.diodon349.com/Radio/ht_tiger_tails_and_other_good_info.htm>
>
>Some attach this to the bnc at its base - others to the belt clip -
>still others just hold it beside the radio as they transmit.
>
>Do you think it might do any good?

A bunch of people in one of my area's hamclubs have built these...
they're the "fasten to the BNC base" variety.

Most of the peopple who made 'em, report significantly-improved
transmit range with their HTs.

One guy spends a fair bit of time up in San Francisco, and likes to
check into a net on the Stanford repeater. Without the tiger-tail on
its HT, he was able to get into the repeater reliably only by going
through some significant hassle (e.g. standing on a fire hydrant and
holding the radio just-so) to find an RF propagation path which
worked. He could not reach or hold the repeater while walking along,
pedestrian-mobile. With the tiger-tail in place, he reports that he
has no trouble getting into the repeater and holding it reliably while
just walking down the street.

The benefit seems roughly similar to switching from a short
rubber-duck antenna to a full quarter-wave "spaghetti noodle".

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

# 3280. Looking for ATV Repeater Equipment

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-08 04:16:46 UTC
From: Dr Dave <drdave@verizon.net>
Message-ID: <Oevtd.3423$wb7.3393@trnddc03>
Source record: 85577

Hello . I am in the process of putting Out local AVT repeater back on and
Looking for ATV Repeater Equipment .
Any INFO would be of help.

List:
Horizontal omit antenna
VSB Filters
Link rec & tx
ETC.

Thanks
Dave

---

Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.802 / Virus Database: 545 - Release Date: 11/26/2004

# 3281. Re: Tiger Tails Was:Re: FS: sma-to-bnc custom fit rubber covered antenna adapter

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-08 05:35:42 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10rd4lk31j50085@corp.supernews.com>
Source record: 85578

It's hard to make too many generalizations about HTs and their antennas, since the hand/body is such an important part of the system and it's so variable.

But HT antennas still have to follow the rules like everything else, so we can get something of an idea of what a "tiger tail" does by knowing the rules.

Remember that whatever current goes into the "antenna", an equal and opposite current (from the inside of the transmission line or connector) has to flow down over the rig, your hand, and body. (It comes out of the rig on the inside of the coax antenna connector shell.) Like any other current, this will split whenever it has more than one available path, and like any other current, the magnitude flowing each way is in inverse proportion to the impedance of that path. If a "tiger tail" is pretty close to resonance (not at all guaranteed by making it a quarter wavelength long, since it'll be influenced by nearby and touching objects), it'll represent a pretty low impedance. If it does, a good share of the total current will flow onto the "tiger tail" and less on you. It's likely, but not guaranteed, that the tiger tail's radiation will reinforce the "antenna"'s radiation better than the radiation from your body would -- although in some cases the body does act somewhat as a reflector. Also, the body is a lossy conductor, and I think that at 2 meters that would be true even considering the large area. So any current diverted to the relatively low loss "tiger tail" will at least contribute to radiation in some direction, rather than producing heat.

The best portable antenna I've found for an HT is a base-matched half wave whip like the AEA "Hot Rod" or MFJ's copy of it, although it's unwieldy. The great advantage of this antenna is that the base current is very low, so the current flowing on your body is also very low and the antenna does most of the radiating.

It's terribly difficult to do really good antenna measurements, but I was impressed with the effort put forth by Pierpoint and Brummer (KF4OW and W4RTZ) in doing their best to make objective measurements of some common HT antennas. Their results are certainly good enough to draw some general conclusions. You can see them in "An Investigation of 2-Meter HT Antenna Performance" in the _ARRL Antenna Compendium_, Vol. 4 (p. 198). Unfortunately, a "tiger tail" wasn't among their tested configurations.

Roy Lewallen, W7EL

Lee Hopper wrote:

> Roy Lewallen wrote:
>
>>
>> Finally, consider an HT... The other half of the antenna -- NOT a
>> "counterpoise", but a real part of the antenna of at least equal
>> importance to the intended part -- is the outside of the sleeve, and
>> the outside of the HT, your hand, and your body...
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>
> Roy & group:
>
> I have heard of holding a quarter-wavelength of wire next to the HT
> while transmitting. This has been called a "tiger tail" and is supposed
> to improve you radiated signal.
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>
> Some attach this to the bnc at its base - others to the belt clip -
> still others just hold it beside the radio as they transmit.
>
> Do you think it might do any good?
>
> Lee H, NB7F

# 3282. Re: SmartSmith1.6.2 Now Available as Free Download

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-08 05:59:28 UTC
From: Lee Hopper <leehopp@centurytel.net>
Message-ID: <41B69840.9010308@centurytel.net>
Source record: 85579

Robert Lay W9DMK wrote:
>
> Download at my Web Site:
> http://www.qsl.net/w9dmk
>
> For a higher speed server, try
> http://64.217.230.66

Bob & group -

I downloaded it and created a folder for it and unzipped it to that folder. Then I ran setup.exe which got to this point:
"Setup cannot continue because some system files are out of date on your system. Click OK if you would like setup to update these files for you now."

I clicked on "OK"

Next setup gives me this message:
"Do you want to restart windows now? If you chose 'No' you will not be able to run setup again until after the system is rebooted."

I choose "yes"

Setup message: "copying files. Please stand by.

and eventually:

"Processing MSVBVM60.DLL (7 or 7)

and the system reboots.

When I examine the folder containing the unzipped files, nothing has changed. If I run setup again I get the exact same messages as above. It seems I'm stuck in a loop.

I'm running Windows ME and my copy of MSVBVM60.DLL is in c:\windows\system with a mod date of 2/23/04.

What am I doing wrong?

Lee H, NB7F
Not smart enough for SmartSmith...

# 3283. Re: Open wire source? - Re Loss Due to Rain and Dirt

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-08 06:37:17 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10rd894arihod28@corp.supernews.com>
Source record: 85580

The problem is that the "works" threshold is different for every person and every situation. A lot of people seem to believe that what "works" for one person and situation will "work" for them for their own particular situation. Simply accepting that is much easier than thinking, but then we've all been conditioned to be satisfied with solutions to complex problems in the form of 30 second sound bites.

What I try to do is explain the relative merits of one approach or another, in a quantitative way when possible, so those one or two people out there willing to spend a few minutes of thought can decide for themselves how to best trade things off -- whether one method or another is more likely to "work" for them. I know this isn't a popular approach in today's instant-gratification world -- thanks to those sound bites, any response that isn't grossly oversimplistic has forever been dubbed "waffling".

Roy Lewallen, W7EL

Irv Finkleman wrote:
>
> I agree Roy. I'm the stick it up in the air and if I work lots of stations
> and hear things most of the other local stations can't then I'm a happy camper.
>
> I'll settle for all the space between 'works' and 'doesn't work' -- much
> less stress and lots more fun. I guess thats why they say 'Ignorance is
> Bliss' or 'What they don't know won't hurt them'
>
> 73
>

# 3284. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-08 09:01:52 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <KcmMOcFAMstBFAnC@ifwtech.co.uk>
Source record: 85582

Frank wrote:
>If you remember, Motorola used to publish Smith charts of the output
>impedance for their power amplifier devices. Talking to one of
>Motorola's design engineers; I asked "How do you derive these Charts".
>His answer was; "We use a matching network and adjust it for the
>required output power, then measure the input impedance of the network.
>The complex conjugate of this impedance is then defined as the source
>Z". The fact is these data are not the actual source Z of the device,

I had heard that also. For a typical VHF/UHF device, the manufacturer's application engineers use an infinitely adjustable stub tuner to explore the whole range of possible load impedances presented TO the device.

As well as measuring output power, the application engineer also has to think about maximum voltage and current ratings, chip and bond wire temperatures, and also IMD performance if the device is going to be specified for linear operation.

The application engineer adjusts the load impedance to give the optimum balance of all these factors, at a series of test frequencies. No problems whatever about that.

The only technical issue is the *assumption* that the conjugate of the load impedance is equal to the output impedance of the device. Most manufacturers now tend to avoid that assumption, because it is a totally unnecessary distraction for the transmitter designer who has to use the device.

All the designer has to do is create an output network that presents the manufacturer's recommended load impedance TO the device. This network replicates the impedance transformation of the original stub tuner setup, but uses mostly fixed components for obvious practical reasons.

Apart from a very few special applications where reverse termination is important to avoid ghosting and similar effects, the transmitter designer doesn't have to think about the device's output impedance at all.

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

# 3285. Re: Changing design frequency of K2RIW 432 MHz yagi

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-08 09:05:57 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <1MbDavG1PstBFAAM@ifwtech.co.uk>
Source record: 85581

>Thanks - I wasn't too worried about the SWR node, but rather the gain
>peak. I figured that I could shave off a millimeter or two (or three?)
>from each element to raise the frequency of maximum gain. Not having
>any yagi-modeling software, it wasn't clear to me what would happen.
>Maybe it's not worth the effort.
>

There is information about 'frequency-shifting' yagis in my VHF/UHF Long Yagi Workshop pages, and links to software to help you do it.

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

# 3286. Re: Changing design frequency of K2RIW 432 MHz yagi

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-08 11:15:35 UTC
From: eat_spam@nlsa.com
Message-ID: <1102504535.507883.49550@z14g2000cwz.googlegroups.com>
Source record: 85583

Ian - Perfect! Just what I was looking for (Why didn't I find this
treasure trove with Google?)

# 3287. Re: Changing design frequency of K2RIW 432 MHz yagi

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-08 13:17:27 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <+tvRSSNn7vtBFAyG@ifwtech.co.uk>
Source record: 85584

wrote:
>Ian - Perfect! Just what I was looking for

You're welcome, Mike.

>(Why didn't I find this
>treasure trove with Google?)
>
Thanks for letting me know that. I've added a few more keywords to the
page, which should help in future.

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

# 3288. Re: Celebrations !!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-08 14:23:04 UTC
From: elj@jflight.elj.org
Message-ID: <slrncre3hl.i7a.elj@jflight.elj.org>
Source record: 85589

On Tue, 7 Dec 2004 00:12:00 +0000 (UTC), Simon Smith
<s.Smith@btinternet.com> wrote:

>I took my foundation license and morse exam to-day, and both were
>sucessful.
>All I have to do now is to: choose a transceiver - choose a tuner - choose
>an antenna - find someone to errect it - get a log book - and I'm sure there
>are lot's of other things ..... Anyway .... now I've shared my excitement
>with you all - I feel much better.
>John in Cornwall UK

Congratulations, John! You will find this hobby very rewarding in the high
quality of people you meet, an educational process, and a satisfying list of
different avenues in which to pursue the hobby. Enjoy!

...Edwin, KD5ZLB
--
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
~ Edwin Johnson ....... elj@shreve.net ~
~ http://www.shreve.net/~elj ~
~ ~
~ "Once you have flown, you will walk the ~
~ earth with your eyes turned skyward, ~
~ for there you have been, there you long ~
~ to return." -- da Vinci ~
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

# 3289. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-08 14:56:28 UTC
From: richardharrison@webtv.net
Message-ID: <7084-41B7161C-97@storefull-3257.bay.webtv.net>
Source record: 85590

Ian White, G3SEK wrote:
"The only technical issue is the "assumption" that the conjugate of the load impedance is equal to the output impedance of the device."

It`s true if maximum power is being transferred.

King, Mimno, and Wing sat so on page 43 of "Transmission Lines, Antennas, and Wave Guides":

"If a dissipationless network is inserted betweeen a constant-voltage generator of internal impedance Zg, and a load of impedance ZR such that maximum power is delivered to the load, at every pair of terminals the impedances looking in opposite directions are conjugates of each other."

The authors, Arnie, Larry, and Alex were all teaching at Harvard in 1945 when their book was published.

Walter Maxwell, W2DU has been saying the same thing yet has mistaken nay-sayerrs.

Best regards, Richard Harrison, KB5WZI

# 3290. Re: Celebrations !!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-08 15:19:17 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <31ol3uF3dva8iU1@individual.net>
Source record: 85585

No. What you need to do now is to pass the Intermediate
and the Advanced courses to become a Radio Ham.

At the moment you are something worse than a CBer.
(The CBer doesn't have to take any exams and is considered
to be competent. He doesn't have to prove anything)

Children below the age of 10 years can do what you boast of.

"Simon Smith" <s.Smith@btinternet.com> wrote in message
news:cp2sgg$ktu$1@sparta.btinternet.com...
> I took my foundation license and morse exam to-day, and both were
> sucessful.
> All I have to do now is to: choose a transceiver - choose a tuner -
choose
> an antenna - find someone to errect it - get a log book - and I'm sure
there
> are lot's of other things ..... Anyway .... now I've shared my excitement
> with you all - I feel much better.

## 3291. Re: Celebrations !!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-08 15:21:04 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <31ol3uF3dva8iU2@individual.net>
Source record: 85588

AKA The M3/CB Fools' Licence which is
a gangrenous degeneration of Ham Radio
that has admitted the Mongolian Hordes of
CBers onto 40m.

"Dave Bushong" <db@9y.com> wrote in message
news:jcCdnfm96soSkCjcRVn-tQ@adelphia.com...
> Foundation license? Which is that????

# 3292. Re: Celebrations !!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-08 15:22:11 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <31ol3vF3dva8iU3@individual.net>
Source record: 85586

Rare for you not to behave like a 5-year old.

"Peter" <microwaves@blueyonder.co.uk> wrote in message
news:41b5e3fe.28791690@news.blueyonder.co.uk...
> Many congratulations JOhn..

# 3293. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-08 15:51:07 UTC
From: Frank <ve6cb@NOSPAM.telus.net>
Message-ID: <LpFtd.2864$eb3.1314@clgrps13>
Source record: 85587

"Richard Harrison" <richardharrison@webtv.net> wrote in message
news:7084-41B7161C-97@storefull-3257.bay.webtv.net...
> Ian White, G3SEK wrote:
> "The only technical issue is the "assumption" that the conjugate of the
> load impedance is equal to the output impedance of the device."
>
> It`s true if maximum power is being transferred.
>
> King, Mimno, and Wing sat so on page 43 of "Transmission Lines,
> Antennas, and Wave Guides":
>
> "If a dissipationless network is inserted betweeen a constant-voltage
> generator of internal impedance Zg, and a load of impedance ZR such that
> maximum power is delivered to the load, at every pair of terminals the
> impedances looking in opposite directions are conjugates of each other."
>
> The authors, Arnie, Larry, and Alex were all teaching at Harvard in 1945
> when their book was published.
>
> Walter Maxwell, W2DU has been saying the same thing yet has mistaken
> nay-sayerrs.
>
> Best regards, Richard Harrison, KB5WZI

Maximum power transfer with conjugate matching is undisputed. The problem with semi-conductor devices is that you cannot necessarily conjugate match because the device operating parameters may be exceeded.

73,

Frank

# 3294. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-08 16:38:29 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <8XHxcURF4ytBFAAy@ifwtech.co.uk>
Source record: 85592

Frank wrote:
>"Richard Harrison" <richardharrison@webtv.net> wrote in message
>news:7084-41B7161C-97@storefull-3257.bay.webtv.net...
>> Ian White, G3SEK wrote:
>> "The only technical issue is the "assumption" that the conjugate of the
>> load impedance is equal to the output impedance of the device."
>>
>> It`s true if maximum power is being transferred.
>>
>> King, Mimno, and Wing sat so on page 43 of "Transmission Lines,
>> Antennas, and Wave Guides":
>>
>> "If a dissipationless network is inserted betweeen a constant-voltage
>> generator of internal impedance Zg, and a load of impedance ZR such that
>> maximum power is delivered to the load, at every pair of terminals the
>> impedances looking in opposite directions are conjugates of each other."
>>
>> The authors, Arnie, Larry, and Alex were all teaching at Harvard in 1945
>> when their book was published.
>>
>> Walter Maxwell, W2DU has been saying the same thing yet has mistaken
>> nay-sayerrs.
>>
>> Best regards, Richard Harrison, KB5WZI
>
>Maximum power transfer with conjugate matching is undisputed. The problem
>with semi-conductor devices is that you cannot necessarily conjugate match
>because the device operating parameters may be exceeded.
>
Exactly.

Richard's assertion relies on at least three things being true:

1. That maximum power is being transferred - for most states of
transmitter tuning, loading and drive levels, that is obviously *not*
true.

2. That the transmitter can be accurately represented as a
"constant-voltage generator of internal impedance Zg", i.e. as a
Thevenin source.

3. That as part of #2, Zg is a constant.

With all due respect to Richard - and above all, respect to Walt - it is
a tall order to prove that all three of those requirements for conjugate
matching are being met. I believe they can only be exactly met under a

few very special sets of operating conditions.

But it then follows that, for all *other* operating conditions, the complete end-to-end conjugate matching referred to by King et al does *not* exist.

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

# 3295. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-08 16:46:32 UTC
From: Frank <ve6cb@NOSPAM.telus.net>
Message-ID: <IdGtd.2869$eb3.742@clgrps13>
Source record: 85591

"Ian White, G3SEK" <G3SEK@ifwtech.co.uk> wrote in message
news:KcmMOcFAMstBFAnC@ifwtech.co.uk...
> Frank wrote:
>>If you remember, Motorola used to publish Smith charts of the output
>>impedance for their power amplifier devices. Talking to one of Motorola's
>>design engineers; I asked "How do you derive these Charts". His answer
>>was; "We use a matching network and adjust it for the required output
>>power, then measure the input impedance of the network. The complex
>>conjugate of this impedance is then defined as the source Z". The fact is
>>these data are not the actual source Z of the device,
>
> I had heard that also. For a typical VHF/UHF device, the manufacturer's
> application engineers use an infinitely adjustable stub tuner to explore
> the whole range of possible load impedances presented TO the device.
>
> As well as measuring output power, the application engineer also has to
> think about maximum voltage and current ratings, chip and bond wire
> temperatures, and also IMD performance if the device is going to be
> specified for linear operation.
>
> The application engineer adjusts the load impedance to give the optimum
> balance of all these factors, at a series of test frequencies. No problems
> whatever about that.
>
> The only technical issue is the *assumption* that the conjugate of the
> load impedance is equal to the output impedance of the device. Most
> manufacturers now tend to avoid that assumption, because it is a totally
> unnecessary distraction for the transmitter designer who has to use the
> device.
>
> All the designer has to do is create an output network that presents the
> manufacturer's recommended load impedance TO the device. This network
> replicates the impedance transformation of the original stub tuner setup,
> but uses mostly fixed components for obvious practical reasons.
>
> Apart from a very few special applications where reverse termination is
> important to avoid ghosting and similar effects, the transmitter designer
> doesn't have to think about the device's output impedance at all.
>
>
>
> --
> 73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
> http://www.ifwtech.co.uk/g3sek

It seems everybody is in agreement with the fact that you cannot match a power source to the load. As Ian states: "nobody cares, what the device output parameters are, only that it is capable of delivering the required power to a desired load". This still leaves the question unanswered as to "What is the actual device S22"? I have read that "With HF linear devices the large signal S parameters are close enough to the small signal values". For non-linear devices load-pull techniques are used. I have never seen high power transistors characterized with S parameters, but have not worked with such designs for a number of years, so am probably out of touch. A tentative search of the web did not find any info. It seems TRW and Motorola are pretty much out of the power semi-conductor industry.

I am tempted to synthesize a transmission line based on the per-unit length parameters, and see how the load power varies as a function of source Z. It seems to me the only important factor is the applied voltage. The input impedance is only a complex number. The transmission line could be considered a "Singly terminated network", the synthesis of which is trivial, and performance independent of source Z. I have trouble with the concept of "Reflection"; how can charges (electrons) flow in both directions simultaneously. Charge flow results from the E field within the conductor.

73,

Frank

# 3296. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-08 17:13:54 UTC
From: Wes Stewart <n7ws_@_yahoo.com>
Message-ID: <t28er09vbqtui9pt65qgp3qiqssosek7uf@4ax.com>
Source record: 85593

On Tue, 07 Dec 2004 18:57:25 GMT, "Frank" <ve6cb@NOSPAM.telus.net>
wrote:

|Hi Richard,
|
|With solid state power amplifier design; the criteria was always that you
|must present an impedance, to the output devices, such that the desired
|output power is delivered to the load (while not exceeding device
|dissipation). Any attempt to optimally match the load to the source
|impedance will result in over-dissipation, and probable destruction of the
|source device -- probably by excess collector/drain current. If you
|remember, Motorola used to publish Smith charts of the output impedance for
|their power amplifier devices. Talking to one of Motorola's design
|engineers; I asked "How do you derive these Charts". His answer was; "We
|use a matching network and adjust it for the required output power, then
|measure the input impedance of the network. The complex conjugate of this
|impedance is then defined as the source Z". The fact is these data are not
|the actual source Z of the device, but are probably considerable higher.

The data were useful as presented. When using a Smith chart for
matching network design, the published data could be used as the
"starting point" for the network and the rotations were made toward
the load; the opposite from the usual case of matching a load to a 50
ohm source.

This method was really an early example of load pull characterization.
Maury Microwave app. note 5C-041 is one reference for this. Another
is "A New Load Pull Measurement Technique Eases GaAs
Characterization", Microwave Journal, Nov, 1980, pp. 63-67.

|I don't remember anybody actually trying to measure the large signal S
|parameters of solid state devices.

|I seem to remember that tube amplifiers were designed based on the source
|impedance calculated as 2Vp/Ip, (Where Vp is the plate voltage, and Ip the
|plate current), and have no idea how, or if, it relates to the actual source
|Z of the device.
|Anyway, I am not convinced that source Z is important.
|Where I think some confusion may have come from is Hewlett Packard's 12 term
|error correction analysis derived for vector network analyzers. Here source
|Z is important because measurements are made in both directions.

It's not the error correction that is confusing. The error correction
simply removes systematic errors from the measurement(s). The
parameters usually measured when 12-term correction is called for are
the small-signal S-parameters. If I understand you correctly, "source

Z" is actually the output reflection coefficient (s22), the signal exiting port 2 due to an input to port 2.

The amplifier output reflection coefficient can be very important, even in high power amplifiers, when non-dissipative filters are used for harmonic or spurious rejection. Such filters are commonly specified and measured in 50 ohm systems and function by reflecting, not dissipating, the out-of-band energy. When driven by other than a 50 ohm source the rejection will be other than what is measured in a matched condition.

# 3297. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-08 17:28:05 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41b737a5_3@127.0.0.1>
Source record: 85599

Frank wrote:
> I have trouble with the concept of
> "Reflection"; how can charges (electrons) flow in both directions
> simultaneously.

Have you ever stood on a cliff overlooking the ocean and seen
ocean waves rolling in and smaller waves rolling back out? The
smaller waves rolling back out to sea are reflections of the
large waves incident upon the shore. The small outflowing wave
meets a large incoming wave and seems to disappear, only to emerge
on the ocean side of the large wave with its identity still intact.

If ocean waves can flow both directions using the same H2O carriers,
why would anyone have difficulty in accepting EM waves flowing
in both directions using the same electron carriers? The energy in
the ocean waves travels much faster than the water molecules. The
energy in an EM wave travels much faster than the electrons.

Ever played with a long rope fastened at one end? You can send a
wave down the rope and receive a reflected wave. If you time it
just right, you can have a forward wave and a reflected wave
meet in the middle of the rope and be unaffected by each other
as long as things remain linear. A forward EM wave has no effect
on a reflected EM wave and vice versa as long as things remain
linear.
--
73, Cecil http://www.qsl.net/w5dxp

# 3298. Iridum and weather msg on /mm ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-08 17:45:04 UTC
From: Thierry <-->
Message-ID: <41b73da2$1@news.vo.lu>
Source record: 85594

Hi,

Using a /MM station with a Iridium handheld, its data kit and a microwave dish antenna lays on the deck, is there a way to receive weather message in the same way as HF fax i(n USB with a computer) but now in those microwaves frequencies ?
What is the required material or downverter to receive weather msg (is possible) ?

I know what to use for meteosat and other "low frequencies" transmissions, but nothing or quasi about Iridium.
Subsidiary question : is there a way to receive weather message using Inmarsat network ? What solution 'd be the best (easiest or cheapest)

Thanks in advance

Thierry, ON4SKY
http://www.astrosurf.com/lombry/qsl-satellites-reception.htm

# 3299. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-08 17:58:16 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <nqber0tboa3gjcpobenapagcbh3sdohgi6@4ax.com>
Source record: 85595

On Wed, 08 Dec 2004 15:51:07 GMT, "Frank" <ve6cb@NOSPAM.telus.net>
wrote:

>Maximum power transfer with conjugate matching is undisputed. The problem
>with semi-conductor devices is that you cannot necessarily conjugate match
>because the device operating parameters may be exceeded.
>

Hi Frank,

If we return this from the ethereal landscape of sub meter
wavelengths, back to the point of Bob's measurements at HF, and lately
the MF; then matching and issues of the final are trivial with a
million examples in the market today.

I know you would probably like to get to the nut of this, and it will
return you to Motorola's AN1526. This work contains much of the
language offered by correspondents here (in times past), but through
the rather gauzy filter of their memory. Usually they couch the
disassociation of Source Z to a transistor through poor context (in
other words, not reading the entire subject, but just a phrase).

There is the presumption these posters embrace:
"They consider the best match is achieved by a simultaneous
conjugate match of the input and output. However, power amplifiers
provide higher power gain and better efficiency at the rated
output power if the output is purposely mismatched. An added
benefit of doing this is potentially unstable devices, conjugately
matched, can be operated stably under these more optimum
mismatched conditions."
This is the usual mistake of misattribution between the distinctions
of a Conjugate Match, and a Z Match. However, you will note that
here, and elsewhere in the reference, that no one denies the Source
has a Z, and it is significant (all within values I've offered) and
that it is still closely held to the expected load (later I will show
exactly held).

Another dismissal offered by posters is the supposed invalidity or
inaccuracy of the load-pull method (which I find curious after having
calibrated active loads suited for just this purpose). I will turn
again to this same reference:
"Although the technique has been known for some time, the
widespread availability of desktop computers and automatic tuning
systems is just now making this method more attractive,
particularly for higher power devices. The characterization
process is conceptually quite simple."

Then there is the subject of S parameters, which is introduced early
by Motorola with this admonition:
"Many first time RF power designers, brought up on a diet
of smallï¿½signal sï¿½parameters, previously used for solving
small signal text book problems, assume these same
techniques are applicable to bipolar classï¿½C and classï¿½AB
power amplifier design."
This selection actually introduces the presumption above. We have one
poster here that violates this admonition with abandon - but with
regard to transmission lines.

When the poster pines further for a Large Signal S parameters:
"However, the authors are not aware of these parameters
being used successfully above a few watts of output power."

When Motorola actually gets down to design:
"The load line resistance is the optimum load impedance
for the internal collector node of the transistor, neglecting
the junction and parasitic device capacitance."
What a concept! Same as before, Same then, Same now.

The ONLY contretemps revealed by this tempest in a teapot is the
forced conclusion that a conjugate match was required (a common
mistake of not knowing the difference between Conjugate Matching and Z
Matching) which was in turn driven by higher frequency operation (much
of this is couched in the 900 MHz band) and parasitics already noted
above. The final and most compelling admission from Motorola is found
with their statement:
"It is up to the device designer to choose which
impedance gets published. One is just as valid as the other.
However, quite frankly, gain is what sells devices."

And of course this discussion will do nothing with those who utter
"you are not going to change my mind." ;-)

To be continued - no doubt.

73's
Richard Clark, KB7QHC

# 3300. Re: Tiger Tails Was:Re: FS: sma-to-bnc custom fit rubber covered antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-08 18:06:09 UTC
From: arrow146@aol.comjunk.com
Message-ID: <20041208130609.21876.00001608@mb-m14.aol.com>
Source record: 85596
Body handling: HTML body converted to readable text

<< I have heard of holding a quarter-wavelength of wire next to the HT
while transmitting. This has been called a "tiger tail" and is supposed
to improve you radiated signal. >>

The "Tiger Tail" was originally made by "Antennas West"
I bought out part of Antennas West when Jim went out of
business. Included was the material & instructions for making the Tiger Tail.
I made a few & done some testing. I found it can work real well on some Radios
& Antennas. On some the improvement was very slight if any.
I never put it into production, just not a product I wanted the Arrow Antenna
name on.
It was "Simply" but just not "the Best" Hi Hi.
Just a little trivia.

73 Al Lowe N0IMW
Arrow Antenna
Arrow Antenna

# 3301. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-08 18:09:24 UTC
From: richardharrison@webtv.net
Message-ID: <7084-41B74354-121@storefull-3257.bay.webtv.net>
Source record: 85597

Frank, WE6CB wrote:
"Maximum power transfer with conjugate matching is undisputed."

Great! W2DU has made progress.

Frank also wrote:
"The problem with semi-conductor devices is that you cannot necessarily conjugate match because the device operating parameters may be exceeded."

True for certain voltages, currents, and drive. The maxima may not all be acheived simultaneously. It`s true for vacuum tube amplifiers too. The total device dissipation can`t be exceeded without reduced life expectancy.

Another caution is the difinition of "maximum available power". In an RF amplifier this is specific to a certain set of operating conditions. Maxium available power is with fixed B+ (or minus) voltage and drive. Current, too, is limited to non-destructive values.

Terman says on page 76 of his 1955 edition:
"Alternatively, a load impedance may be matched to a source of power in such a way as to make the power delivered to the load a maximum. (The power delivered to the load under these conditions is termed the avalable power of the power source.)"

Best regards, Richard Harrison, KB5WZI

# 3302. Re: SmartSmith1.6.2 Now Available as Free Download

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-08 18:11:11 UTC
From: w9dmk@crosslink.net
Message-ID: <41b74271.21222065@news.crosslink.net>
Source record: 85600

On Tue, 07 Dec 2004 21:59:28 -0800, Lee Hopper
<leehopp@centurytel.net> wrote:

>Robert Lay W9DMK wrote:
>>
>> Download at my Web Site:
>> http://www.qsl.net/w9dmk
>>
>> For a higher speed server, try
>> http://64.217.230.66
>
>Bob & group -
>
>I downloaded it and created a folder for it and unzipped it to that
>folder. Then I ran setup.exe which got to this point:
>"Setup cannot continue because some system files are out of date on your
>system. Click OK if you would like setup to update these files for you now."
>
>I clicked on "OK"
>
>Next setup gives me this message:
>"Do you want to restart windows now? If you chose 'No' you will not be
>able to run setup again until after the system is rebooted."
>
>I choose "yes"
>
>Setup message: "copying files. Please stand by.
>
>and eventually:
>
>"Processing MSVBVM60.DLL (7 or 7)
>
>and the system reboots.
>
>When I examine the folder containing the unzipped files, nothing has
>changed. If I run setup again I get the exact same messages as above. It
>seems I'm stuck in a loop.
>
>I'm running Windows ME and my copy of MSVBVM60.DLL is in
>c:\windows\system with a mod date of 2/23/04.
>
>What am I doing wrong?
>
>Lee H, NB7F

>Not smart enough for SmartSmith...

Dear Lee,

I'm sorry to say that you aren't doing anything wrong. As was the case with earlier versions, the Package and Deployment software provided by Visual Studio 6.0 has a problem with Windows ME. I can't get it to work here either on my ME systems. The problem does not occur with Windows 98, Windows 98SE, Windows XP or Windows 2000.

I think I already created a workaround for the problem about a month ago and will have to remember what it was. It is really not difficult, but you do have to copy some system files into C:\Windows\System32\ in order to get it installed. If anyone else is also having this problem, please e-mail me privately and I will put you each on distribution for a workaround kit.

Bob, W9DMK, Dahlgren, VA
http://www.qsl.net/w9dmk

# 3303. Mr Bean ( An M3 Reply )

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-08 18:18:42 UTC
From: Simon Smith <s.Smith@btinternet.com>
Message-ID: <cp7gi2$9ea$1@sparta.btinternet.com>
Source record: 85598

Mr Bean
With the greatest respect.
I have no control over the RSGB and their decision to allow "new members"
with an easy foundation test.
Perhaps it was because the hobby was in need of some new Blood.
I was not allowed to sit the advanced test - or the intermediate test. I had
to start off in exactly the same place as you did - at the very bottom.
I suppose you started off at the very top did you ? You must be absolutely
brilliant !!
By the way I;m a retired research technologist with a Mathematics and
Chemistry degree - hardly a Mongolian mooron !
Why dont you write to the RSGB - perhaps they could make use of your
services in an advisory capacity.
"73's Mr Bean.

"Airy R. Bean" <me@privacy.net> wrote in message
news:31ol3uF3dva8iU2@individual.net...
> AKA The M3/CB Fools' Licence which is
> a gangrenous degeneration of Ham Radio
> that has admitted the Mongolian Hordes of
> CBers onto 40m.
>
> "Dave Bushong" <db@9y.com> wrote in message
> news:jcCdnfm96soSkCjcRVn-tQ@adelphia.com...
>> Foundation license? Which is that????
>
>

# 3304. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-08 19:09:52 UTC
From: richardharrison@webtv.net
Message-ID: <29440-41B75180-53@storefull-3256.bay.webtv.net>
Source record: 85602

Frank wrote:
"I have trouble with the concept of "Reflection", how can charges (electrons) flow in both directions simultaneously."

The wave, or signal flowing in one direction is distinctly different from that flowing in the opposite direction. Upon reflection, the phase between current and voiltage prodiuced by the wave is inverted. Only phase of the volts or amps is inverted by reflection, not both. The phase relation between volts and amps is the key to the direction the wave is traveling on the line. It`s the wave which travels. The volts and amps are generated by the wave traveling on the line. The line is just guiding the wave.

The traveling forward and reflected waves, traveling in opposite directions on the same line, produce the familiar standing wave patterns through superposition of volts and amps. Transmission lines and the appurtenances used with them have no problem keeping values associated with the waves straight with proper design. A directional wattmeter can separate the two directions of travel wery well indeed. It knows one direction from the other by whether the volts and amps are in-phase or out-of-phase.

Best regards, Richard Harrison, KB5WZI

## 3305. Re: Celebrations !!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-08 19:18:14 UTC
From: Gary Cavie <m0jjh@despammed.com>
Message-ID: <MPG.1c2163d4c3a9786c98968a@news.individual.net>
Source record: 85601

In article <31ol3uF3dva8iU1@individual.net>, me@privacy.net says...
> No. What you need to do now is to pass the Intermediate
> and the Advanced courses to become a Radio Ham.
>
> At the moment you are something worse than a CBer.
> (The CBer doesn't have to take any exams and is considered
> to be competent. He doesn't have to prove anything)
>
> Children below the age of 10 years can do what you boast of.
>

I'm so glad to see that you never originate infantile comments, Gareth.

Well done John

# 3306. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-08 20:26:32 UTC
From: richardharrison@webtv.net
Message-ID: <2836-41B76378-68@storefull-3251.bay.webtv.net>
Source record: 85604

I quoted Terman, saying:
"The power delivered to the load under these conditions (a conjugate match) is termed the AVAILABLE POWER of the power source."

The match between source and load is the best it can be and can`t be improved when you have a conjugate match. A conjugate match is an empowerment but does not cause you to put out any particular power. That`s up to you.

Suppose you have a conjugate output match to a Class-B power amplifier you are driving with your SSB transmitter. Instantaneously, average power from the amplifier is following the modulation. A single steady tone ideally produces a particular output at at one radio frequency. Want more output? Increase drive to the amplifier. Want less? Reduce drive to the amplifier. You may have a conjugate match under only one condition, some conditions, or under all conditions, but given life`s usuall imperfections, I would place no bets, except against all conditions.

Best regards, Richard Harrison, KB5WZI

# 3307. Re: Open wire source?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-08 20:28:38 UTC
From: Bob Nielsen <nielsen@removethis.oz.net>
Message-ID: <slrncreov9.agi.nielsen@n7xy.net>
Source record: 85603

On Tue, 07 Dec 2004 13:40:13 -0700, Wes Stewart wrote:
>
> I had hoped to get set up to measure it but the 10% RH in Tucson
> conspired to kill the stuff.
>
> Nevertheless, I suspect that it was no longer a low-loss line but a
> high-moss line instead.
>

I could send you a few samples large enough to fit a dielectrometer.

OTOH, I don't experience nearly as much static electricity up here as I
did in the desert.

--
Bob Nielsen, N7XY n7xy (at) n7xy.net
Bainbridge Island, WA http://www.n7xy.net

# 3308. Re: Mr Bean ( An M3 Reply )

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-08 20:37:28 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <31p76tF3eh1cjU1@individual.net>
Source record: 85605

You might have to take the exam.

You don't have to take out the licence.

If you're as well educated as you claim, then you
could slip through all the exams with ease.

The M3/CB Fools' Licence is a gangrenous degeneration
of the technical pursuit (not a hobby) that is Ham Radio.

It is not and never was in need of "New Blood". If that
"New Blood " does not make its own gear then that "new
blood" is of the CB type and not the Ham Radio type.

Everybody had to start off with the RAE. That it was passed
with facility by otherwise-unqualified self-taught 14-year-olds
meant that there was never a need to lower the standards to
introduce the Novice (Now Intermediate) exam. That the
Novice was introduced means that there was _DEFINITELY_
no need to introduce the Fools' Licence whereby someone
starting out with no interest at all could have a "licence" after
only a two-day weekend course.

8-year-old children who do not even have the mathematical
background to work out resistances in series and parallel, the
most fundamental technical skill of any Radio Ham, are
getting Fools' Licences, thereby showing that one thing the
Fools' Licence is not, and that is a Ham Radio Licence.

I refuse to QSO with M3/CB Fools' Licensees precisely
because the licence is the thin end of the wedge leading to
non-technical Hams who are forbidden to build their own gear.

I exhort everybody who reads this post to refuse to QSO
with such licensees, not because of any personal issues, but
purely because of the threat that the M3/CB Fools' Licence
presents to Ham Radio if it is allowed to continue.

"Simon Smith" <s.Smith@btinternet.com> wrote in message
news:cp7gi2$9ea$1@sparta.btinternet.com...
> Mr Bean
> With the greatest respect.
> I have no control over the RSGB and their decision to allow "new members"
> with an easy foundation test.
> Perhaps it was because the hobby was in need of some new Blood.
> I was not allowed to sit the advanced test - or the intermediate test. I
had

> to start off in exactly the same place as you did - at the very bottom.
> I suppose you started off at the very top did you ? You must be
absolutely
> brilliant !!
> By the way I;m a retired research technologist with a Mathematics and
> Chemistry degree - hardly a Mongolian mooron !
> Why dont you write to the RSGB - perhaps they could make use of your
> services in an advisory capacity.

# 3309. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-08 20:55:18 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cp7pnm$6m8$1@hercules.btinternet.com>
Source record: 85606

Ian wrote -
> But it then follows that, for all *other* operating conditions, the
> complete end-to-end conjugate matching referred to by King et al does
> *not* exist.
>
==========

- - - - and if that isn't enough, to further complicate matters, the internal impedance of the transmitter changes as the load impedance is varied in futile attempts to obtain a conjugate match.

But during such operations, according to your oft-quoted theorems, the internal impedance is supposed to remain constant.

I can't imagine why this conversation has continued for so many years by more or less the same group of experts. However, we do welcome the occasional newcomer. ;o)

Actually, the internal impedance, for a given load, is calculable under any operating-angle conditions of class A, B or C. But sadly, nobody has ever found a practical use for it! Although it can be brought into play in the design of plate-modulated tube amplifiers when there are two signal inputs and the load on the modulating device must be considered.

With a properly adjusted transmitter, at HF, either tubes or transistors, either single-ended or push-pull, it is purely a resistance of relatively high value. The active device generally behaves as a current source. The conjugative aspect then falls into disuse.

As active circuit analysts, you should be able to sort out the details for yourselves.

Tonight, I'm on Cabernet Sauvignon, a Bulgarian vintage. Just as good as the French stuff. Trade with our Eastern European friends must be encouraged even if they don't have as much oil as the poor, unfortunate, being bombed-out-of-existence for 13 years, Iraqis.

Hic!
----
Reg, G4FGQ

# 3310. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-08 21:18:49 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <bb6cr0tjjvrrnn35hlrfi461uufrrlbplb@4ax.com>
Source record: 85607

On Wed, 8 Dec 2004 20:55:18 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

> and if that isn't enough, to further complicate matters, the
>internal impedance of the transmitter changes as the load impedance is
>varied

Hi Reggie,

Such arguments are as juvenile as the claim no one can travel a
straight line because the earth is rotating under them. A quadrillion
miles of experience would suggest this too is trivial to accomplish.

Aren't you the one who is so charmed with the legacy of Kelvinator who
chimed that such chimera without calculation are the chatter of chimps
in the forest canopy?

73's
Richard Clark, KB7QHC

# 3311. Re: Open wire source?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-08 21:31:44 UTC
From: Mike Coslo <mjc5remove@psu.edu>
Message-ID: <41B772C0.50402@psu.edu>
Source record: 85609

Edmund H. Ramm wrote:
> In <41b522ed$1_1@127.0.0.1> "Cecil Moore" <w5dxp@hotmail.com> writes:
>
>
>>[...]
>>I have never seen rain make more than a two foot change necessary
>
>
> With true open wire line the neccesary "change" would be 0 feet.
>
>
>>and the SWR only ever changed by about 0.2.
>
>
> Falsified by the also increased losses.
>
>
>>[...]
>>I am savvy enough not to have a horizontal run of ladder-line out
>>in the rain. :-)

>
>
> In due time the dirt which comes down with the rain will also stick
> to a vertical run of twinlead, thereby gradually obviating an initally
> acceptable performance.

Two years and my twinlead still sheds water like a duck.

At least in my case, the short time that I have been a Ham, I have seen more problem with water in coax than I have seen water problems with twinlead.

But we knew about those problems because the antenna didn't lose a bit of signal. It simply quit working at all!

- Mike KB3EIA -

# 3312. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-08 21:32:27 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cp7rta$dk4$1@titan.btinternet.com>
Source record: 85608

Just a comment -

The design, from start to finish, of a linear power amplifier is based solely on a device's ratings - volts, amps, watts, etc.

Its RF internal impedance plays no part in it. At HF it is never specified by the manufacturer.

Even ARRL bibles don't mention the subject of Rint. It's superfluous. Does anybody know what it is? Give us some numbers.

As for conjugate matching - don't make me laugh.
---
Reg.

# 3313. Re: Mr Bean ( An M3 Reply )

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-08 22:15:38 UTC
From: Simon Smith <s.Smith@btinternet.com>
Message-ID: <cp7uea$ihj$1@titan.btinternet.com>
Source record: 85610

If I migh say so Mr. Bean - You sound just like the sort of person that "Ham Radio" is trying to weed out and be rid of. Your attitude is in the minority.
With all the modern tranceivers on the market to-day it is not necessary to build your own.
If I had been permitted to sit, and pass all three stages of the license in one sitting , would that have made me a more responsible person ? I think not.
You are entitled to your opinion - and I respect it but please - everyone has to be allowed to start somewhere.
"Airy R. Bean" <me@privacy.net> wrote in message news:31p76tF3eh1cjU1@individual.net...
> You might have to take the exam.
>
> You don't have to take out the licence.
>
> If you're as well educated as you claim, then you
> could slip through all the exams with ease.
>
> The M3/CB Fools' Licence is a gangrenous degeneration
> of the technical pursuit (not a hobby) that is Ham Radio.
>
> It is not and never was in need of "New Blood". If that
> "New Blood " does not make its own gear then that "new
> blood" is of the CB type and not the Ham Radio type.
>
> Everybody had to start off with the RAE. That it was passed
> with facility by otherwise-unqualified self-taught 14-year-olds
> meant that there was never a need to lower the standards to
> introduce the Novice (Now Intermediate) exam. That the
> Novice was introduced means that there was _DEFINITELY_
> no need to introduce the Fools' Licence whereby someone
> starting out with no interest at all could have a "licence" after
> only a two-day weekend course.
>
> 8-year-old children who do not even have the mathematical
> background to work out resistances in series and parallel, the
> most fundamental technical skill of any Radio Ham, are
> getting Fools' Licences, thereby showing that one thing the
> Fools' Licence is not, and that is a Ham Radio Licence.
>
> I refuse to QSO with M3/CB Fools' Licensees precisely
> because the licence is the thin end of the wedge leading to
> non-technical Hams who are forbidden to build their own gear.

>
> I exhort everybody who reads this post to refuse to QSO
> with such licensees, not because of any personal issues, but
> purely because of the threat that the M3/CB Fools' Licence
> presents to Ham Radio if it is allowed to continue.
>
> "Simon Smith" <s.Smith@btinternet.com> wrote in message
> news:cp7gi2$9ea$1@sparta.btinternet.com...
>> Mr Bean
>> With the greatest respect.
>> I have no control over the RSGB and their decision to allow "new members"
>> with an easy foundation test.
>> Perhaps it was because the hobby was in need of some new Blood.
>> I was not allowed to sit the advanced test - or the intermediate test. I
> had
>> to start off in exactly the same place as you did - at the very bottom.
>> I suppose you started off at the very top did you ? You must be
> absolutely
>> brilliant !!
>> By the way I;m a retired research technologist with a Mathematics and
>> Chemistry degree - hardly a Mongolian mooron !
>> Why dont you write to the RSGB - perhaps they could make use of your
>> services in an advisory capacity.
>
>

# 3314. Re: New version 4nec2 freeware antenna optimizer

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-08 22:21:00 UTC
From: fractenna@aol.com
Message-ID: <20041208172100.21555.00001706@mb-m11.aol.com>
Source record: 85611

>Thanks for the info. I was thinking in terms of Nittany Scientifics GNEC, a
>NEC4 based program. Did not realize if I get a license I would also get a
>copy of NEC4.
>
>Regards,
>
>Frank
>
>
>"Dan Richardson" <dwr@mailinator.com> wrote in message
>news:qekbr0hquc3cshnro7nkrrkmpdmscbicnm@4ax.com...
>> On Tue, 07 Dec 2004 13:37:31 GMT, "Frank" <ve6cb@NOSPAM.telus.net>
>> wrote:
>>
>>>Is 5.4.1 a stand-alone version?
>>
>> Yes
>>
>>>What is 4nec2X541.zip?
>>
>> It is explained on the download page Arie gave.
>>
>>>Is anybody working
>>>on a free Windows version of NEC4 (Providing you obtain the appropriate
>>>license from Lawrence Livermore)?
>>
>> If you have purchased a license then you were provided with a copy of
>> NEC4 so that question is moot.
>>
>> Danny, K6MHE
>>>
>>>Regards,
>>>
>>>Frank
>>>

You either have a license for NEC4 or not; you would know.Listen to Danny
(hello OM!)

73,
Chip N1IR

# 3315. Re: Mr Bean ( An M3 Reply )

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-08 23:33:09 UTC
From: "Harold E. Johnson" <W4ZCB@mchsi.com>
Message-ID: <VaMtd.159115$V41.96601@attbi_s52>
Source record: 85612

"Simon Smith" <s.Smith@btinternet.com> wrote in message
news:cp7uea$ihj$1@titan.btinternet.com...
> If I migh say so Mr. Bean - You sound just like the sort of person that
"Ham
> Radio" is trying to weed out and be rid of. Your attitude is in the
> minority.
> With all the modern tranceivers on the market to-day it is not necessary
to
> build your own.
> If I had been permitted to sit, and pass all three stages of the license
in
> one sitting , would that have made me a more responsible person ? I think
> not.
> You are entitled to your opinion - and I respect it but please - everyone
> has to be allowed to start somewhere.

Pay bean no attention, he's not even civilized enough to suicide and put us all out of his misery. Neither his opinion or any other part of him has earned any respect. You're right, he's an embarrassment to the fraternity and we'd be better off without him or his attitude. (And certainly better off without his commentary.)

W4ZCB

# 3316. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-08 23:33:14 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cp82vq$ple$1@titan.btinternet.com>
Source record: 85613

Richard, you've slipped into one of your incoherent phases. Try again in a few days time when you are feeling better. ;o)
---
Yours, Punchinello.

## 3317. help me hack mailbox alert

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-08 23:41:28 UTC
From: zeb7k@hotmail.com
Message-ID: <1102549288.086640.263600@f14g2000cwb.googlegroups.com>
Source record: 85614

Hi, I'd like to extend the operable range of a Radio Shack cat #
63-1110 mailbox alert. It works with a small photo sensitive
transmitter mounted inside the mailbox. When the mailbox is opened
(i.e. a change of light level) the transmitter sends a burst (of what
frequency I know not) to the base unit. The indoor wall-wart-powered
base unit with a 11" antenna flashes an LED and beeps when it receives
this signal.

The directions say the transmitter should be max 150' away and in line
of sight. Well, I'd like the thing to work at 275' and slightly out of
line of sight --around some trees and over a small hill.

I tried hooking the base unit antenna to the center wire of coax that
goes to our rooftop TV antenna but that didn't work. I can't quite see
the top of that TV antenna from the mailbox.

I'm getting the impression that I should find some way to boost the
transmitter signal. Any way to do this? The transmitter is powered by
2 3V lithium batteries. There's a Radio Shack provided parts list on
the web but I can't make much sense of it.

One thing I might try: Our detached garage is about 75' closer to the
mailbox than our house. The apex of the roof of the garage is probably
in line of sight of the mailbox. There is existing conduit for phone
wire from the garage to the house. I could probably run a long
"antenna" wire from the garage roof apex to the base unit inside the
house, but I wonder if the resistance (oh, right --impedance) of long
wire might throw cold water on this idea.

I know only of smattering of electrionics and certainly not much
analog. Any suggestions appreciated.

--zeb

# 3318. Re: SmartSmith1.6.2 Now Available as Free Download

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-08 23:56:32 UTC
From: Phil <pjock@xxxSpearNet.net>
Message-ID: <Xns95B9C0B001573pjockxxxSpearNetnet@216.196.97.142>
Source record: 85615

Bob,

This is a good example of why I don't like (or use when possible) installer programs/scripts. If it is not absolutely required, most users would generally prefer a simple zipped executable, required DLL's that are not common and a simple text description of how to create a link to the executable for folks who don't know how to do that.

I use Delphi for programming simple tasks and in my humble opinion, the days of registry entries (to save disk space), INI files in Win or win\system (because that was the default for many) and like "conventions" are past. Hard drives are large enough not to have space worries, and having all required files in one folder mean the simplest of install / delete procedures.

Sheesh, glad I got that off my chest.

Returning this newsgroup to its normally scheduled programming...

73,

phil

# 3319. 6 meter Ringo wanted

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-09 00:01:18 UTC
From: "Ron, KC4YOY" <kc4yoy@carolina.rr.con>
Message-ID: <iBMtd.34594$Mu3.2235103@twister.southeast.rr.com>
Source record: 85616
Cross-posted to: rec.radio.amateur.antenna,rec.radio.swap

I'm looking for a 6 meter Ringo.
Anyone got one in good shape they'd
like to part with?

73, Ron

--
C.R."Ron"Lawrence KC4YOY
Antique Radio Collector & Historian
kc4yoy(at)carolina.rr.com

POBox 3015
Matthews, NC 28106-3015
704-289-1166 (home)

Radio Collection Web Page,
http://www.radioheaven.homestead.com
Clough-Brengle equipment web page
http://CloughBrengle.homestead.com
CC-AWA Web Page,
http://www.cc-awa.org
TCA Tube Photo Gallery,
http://radioheaven.homestead.com/TCA.html
SuperHet web page,
http://radioheaven.homestead.com/superhets.html

# 3320. Re: Additional Line Losses Due to SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-09 00:30:16 UTC
From: richardharrison@webtv.net
Message-ID: <28873-41B79C98-45@storefull-3252.bay.webtv.net>
Source record: 85617

Reg, G4FGQ wrote:
"The active device generally behaves as a current source."

As Reg also wrote:
"I can`t imagine why this conversation has continued for so many years by more or less the same group of experts."

Agreed! Reg seems to have answered his own question.The same people recite the same arguments in hopes their view of reality will be accepted. Fat chance! Time has inured them.

Reg has faithfully proposed constant-current behaviour from all vacuum valves and transistors as I recall. I agree that most of these devices have extremely high plate ond collector resistances as linear amplifiers. Current through them is almost constant regardless of anode voltage.

As most transmitter power amplifiers exceed 50% efficiency by a good margin, these devices are not operating as Class-A linear amplifiers. They instead operate as HF switches. These are turned-off most of every cycle and are only on for short pulses. Harmonics and other noise is cleaned up by output filters. It`s the only thing which makes the output linear.

During the output device`s conduction, its saturation volts are very low and its current is very high, giving the device a very low impedance while switched-on. You may not infer a low impedance from the d-c volts and amps feeding the final amplifier. These are the averages, almost, of the device amps. The device saturation volts sre what counts toward its dissipation and loss. The transmitter usually has no built-in indicator of saturation voltage. It wouldn`t read much anyway.Device impedance depends mostly on its ratio of off to on times. This is a form of lossless resistance. Dissipation is zero in a sewitched-off device. The d-c volts and amps are related to the output device(s) internal impedances used as a switch when the transmitter output is considered. A high voltage and a low current accompany a high internal impedance but they won`t be nearly so high as the spec sheet plate or collector resistances.

We have d-c power input to the amplifier. We can measure HF power output. The difference is dissipation, but loss resistance does not represent the total source resistance because we have non-dissipative resistance in the device off-times.

There have been measurements of transmitter internal output impedances which indicated that they did indeed match their loads. I have not done

it myself but have no reason to doubt the reports.

Best regards, Richard Harrison, KB5WZI

# 3321. Re: help me hack mailbox alert

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-09 00:37:14 UTC
From: phoneguy99 <phoneguy99unspam@unspamsympatico.ca>
Message-ID: <S5Ntd.34599$l%5.1328638@news20.bellglobal.com>
Source record: 85618

FIRST: You really ought to rephrase that subject line. :)

As to the mailbox activity whatchamcallit, try putting a proper directional antenna on the TX unit (the mailbox transmitter.) I vaguely recall the device. I have no clue what frequency it may use, but I'm sure someone here will know it. Then wire a directional antenna on the RX unit (the house side.) You might also try placing the entire receiver at this garage you speak of, and use a 4 pair cable to the house to feed the LED, buzzer, and reset signals back to the dwelling. You will likely have to buffer or isolate these with either transistors or relay circuits to overcome the loop impedance of the cable, depending on how fussy the box is.

Even though it might seem so, this is not likely to be too complicated.

Have fun!
Pat

## 3322. Re: Mr Bean ( An M3 Reply )

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-09 01:31:38 UTC
From: drwxr-xr-x <bit-bucket@config.com>
Message-ID: <slrncrfanq.1quv.bit-bucket@shell.config.com>
Source record: 85619

Geee-Zuuss! Take this crap to private email!

# 3323. Re: Changing design frequency of K2RIW 432 MHz yagi

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-09 01:42:46 UTC
From: Tom Ring <news0000@taring.org>
Message-ID: <41b7ad97$0$74190$39cecf19@news.twtelecom.net>
Source record: 85620

eat_spam@nlsa.com wrote:
> I need to "move" a 19-element K2RIW 432 MHz yagi from its orignal
> design frequency of 432 MHz to 445 MHz. I can't change to element
> positions but I can change their lengths. But by how much? -W9IP
>

Hi Mike, long time no hear. Still teaching? I've gotten to be an EME junkie since moving out here, and actually have the audio from Joe and Lionel's Sunday nets available live and prerecorded on my web page.

I can help you, and do it with good resolution. Drop me a note at the eamil address shown here, and I'll run some models for you. I'm pretty sure I already have 19 el K2RIW correctly modeled.

Tom
K0TAR - ex WA2PHW

# 3324. Re: SmartSmith1.6.2 Now Available as Free Download

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-09 01:43:55 UTC
From: w9dmk@crosslink.net
Message-ID: <41b7ac4c.17608669@news.crosslink.net>
Source record: 85621

On Wed, 08 Dec 2004 17:56:32 -0600, Phil <pjock@xxxSpearNet.net>
wrote:

>Bob,
>
>This is a good example of why I don't like (or use when possible)
>installer programs/scripts. If it is not absolutely required, most
>users would generally prefer a simple zipped executable, required
>DLL's that are not common and a simple text description of how to
>create a link to the executable for folks who don't know how to do
>that.
>
>I use Delphi for programming simple tasks and in my humble opinion,
>the days of registry entries (to save disk space), INI files in
>Win or win\system (because that was the default for many) and like
>"conventions" are past. Hard drives are large enough not to have
>space worries, and having all required files in one folder mean the
>simplest of install / delete procedures.
>
>Sheesh, glad I got that off my chest.
>
>Returning this newsgroup to its normally scheduled programming...
>
>73,
>
>phil

Dear Phil,

Gee, Phil, you won't get any argument from me on that. In fact, were it not for the fact that I enjoy coding in VB instead of VC++, I would be doing this in VC++ and we would all be looking at teensy executables and a 10X simpler installation package.

It was a gigantic surprise to me that Windows ME is so problematic. However, to be honest, I think the problem really lies in the fact that I do my development in W2000 Server. When I do my development in W98 or WinME I never have these problems. (I also did not have these problems when I was coding in the older VB3.0, which had yet a different packaging wizard.

My biggest reason for not going the route that you suggest is that for 90 to 95% of the users, the packaging works without a hitch. And I can live with those odds. Having to put together a set of instructions telling people that this file goes into this folder and this file goes into that folder, etc., can be just as counter-productive, because for

many people, file management is an anathema.

I'll work it all out eventually, even if I have to move my development platform to one of the Win ME machines.

Anyway, thanks for the encouragement,
73

Bob, W9DMK, Dahlgren, VA
http://www.qsl.net/w9dmk

## 3325. SmartSmith1.6.2 Packaged for Windows ME

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-09 02:31:12 UTC
From: w9dmk@crosslink.net
Message-ID: <41b7b7f0.20588264@news.crosslink.net>
Source record: 85523

For anyone having trouble installing SmartSmith 1.6.2 on a Windows ME system, I have put together another package, developed under Windows ME and test installed under Windows ME. That package is available at my Web site using the following URL:

http://www.qsl.net/w9dmk//SWDownloads/SmartSmithForWinME.zip
Bob, W9DMK, Dahlgren, VA
http://www.qsl.net/w9dmk

# 3326. W9OKA 80/75 Dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-09 03:04:49 UTC
From: Bob Schreibmaier <k3ph@ptd.net>
Message-ID: <RIKcnd-v5q9TXSrcUSdV9g@ptd.net>
Source record: 85522

I'm looking for plans for building a W9OKA 80/75
meter dipole. Also, if anyone has used one of
these antennas, I would like to hear from you.

Thanks in advance.

73,
Bob

--
+-----------------------------------------+
| Bob Schreibmaier K3PH | E-mail: k3ph@ptd.net |
| Kresgeville, PA 18333 | http://www.dxis.org |
+-----------------------------------------+

# 3327. Re: New version 4nec2 freeware antenna optimizer

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-09 04:38:54 UTC
From: Frank <ve6cb@NOSPAM.telus.net>
Message-ID: <yFQtd.3205$eb3.1587@clgrps13>
Source record: 85524

>>> If you have purchased a license then you were provided with a copy of
>>> NEC4 so that question is moot.
>>>
>>> Danny, K6MHE
>
> You either have a license for NEC4 or not; you would know.Listen to Danny
> (hello OM!)
>
> 73,
> Chip N1IR

No, do not have license, or GNEC. Just thinking about upgrading to NEC4.

73,

Frank

# 3328. Re: W9OKA 80/75 Dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-09 05:48:02 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <10rfpp7qvurn213@corp.supernews.com>
Source record: 85525

Bob Schreibmaier wrote:

> I'm looking for plans for building a W9OKA 80/75
> meter dipole. Also, if anyone has used one of
> these antennas, I would like to hear from you.
>
> Thanks in advance.
>
> 73,
> Bob
>
Bob;

To to QRZ.com or ARRL.ORG and lookup the call sign. Email the ham direct
for information.

Dave WD9BDZ

# 3329. TV antenna question.....

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-09 08:16:14 UTC
From: Hank <fire@will.com>
Message-ID: <10rg2ed9rb4bu74@corp.supernews.com>
Source record: 85526

Hello,
I hope I'm in the right newsgroup.....

I am totally remodeling my house.
The walls are gutted down to the studs.
I want to run any and all appropriate wires and cables before the
drywall goes up.
I want to receive UHF and VHF TV signals for my TV.
Most people now get their signals via cable or satellite.
I would be happy with just six channels or so.

What kind of cable should I run ?
What type of amplifier should I have ?
Rotor type ?
What are good antenna brands ?
Model numbers ?
Anything else ?

Thanks,

Hank

## 3330. Re: TV antenna question.....

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-09 08:27:52 UTC
From: wildboy74@webtv.net
Message-ID: <4125-41B80C88-154@storefull-3276.bay.webtv.net>
Source record: 85527

hey hank channel master makes a good ant and amp also you can by
the coax from wal.mart cheaper the rat shack one more thing are you in
the country or city is you tv sations close by . get the ant high
as you can

## 3331. Re: TV antenna question.....

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-09 09:00:17 UTC
From: w9gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <wuUtd.161663$V41.134657@attbi_s52>
Source record: 85528

"Hank" <fire@will.com> wrote in message
news:10rg2ed9rb4bu74@corp.supernews.com...
> Hello,
> I hope I'm in the right newsgroup.....
>
> I am totally remodeling my house.
> The walls are gutted down to the studs.
> I want to run any and all appropriate wires and cables before the drywall
> goes up.
> I want to receive UHF and VHF TV signals for my TV.
> Most people now get their signals via cable or satellite.
> I would be happy with just six channels or so.
>
> What kind of cable should I run ?
> What type of amplifier should I have ?
> Rotor type ?
> What are good antenna brands ?
> Model numbers ?
> Anything else ?
> Thanks,
>
> Hank

NO, not the correct group for TV, satellite TV or home cabling ... try
rec.video.satellite.tvro or comp.dcom.cabling or
http://www.remotecentral.com/cgi-bin/mboard/rc-sat/list.cgi?2130

Home cabling today (computer network, TV, etc) is referred to as structured
wiring.
http://electrical.bobvila.com/Article/371.html

http://electrical.bobvila.com/Article/372.html

http://www.ehow.com/how_12212_make-pre-wiring.html

http://www.tvidish.com/builders.html

Remember that "off the air" VHF/UHF analog signals are due to be replaced by
Digital TV over the next 4 years. I would wire for satellite cabling
standards, if you don't have a local CATV company.
DIY TV cabling
http://www.dba.org.au/uploads/documents/Consumer_D.I.Y._140802_amend.pdf

http://www.smarthome.com/coaxcable.html

Some other links
http://www.satellitetv-hq.com/hqguides/get-satellite-tv.html#installation

http://www.starkelectronic.com/

The other choice is to just pull the plastic tubing for the cable (with a pull string) and pull the cabling later -- without ripping up your walls. Check with local building and inspection codes for acceptance in your area.
http://www.phonegeeks.com/wirforfut.html

TIA-570-A Grades of Cabling

Service Grade 1 Cabling
Requirements
Grade 2 Cabling
Requirements

Telephone (1) 4-Pair category 3 (1) 4-Pair category 5
Optional (1) 4-Pair category 5 Optional (2) 4-Pair category 5
Television (1) 75-ohm Coax (1) 75-ohm Coax
Optional (2) 75-ohm Coax
Data (1) 4-Pair category 3 (1) 4-Pair category 5
Optional (1) 4-Pair category 5 Optional (2) Optical Fiber
Multimedia Not Accommodated (1) 4-Pair category 5
Optional (2) Optical Fiber

Benefits to Homeowners

Homeowners or tenants are exploring the full spectrum of residential technologies available today and most certainly will continue to do so in the future. Entertainment, security and environmental controls are only a few of the highly desirable attributes being sought by homeowners and tenants. In addition, there are other convenience offerings and features, e.g., energy-efficiency, high performance in-home networking, internal or external digital video/audio systems to name a few. Enhanced capabilities for SOHO's, Internet access or telecommuting are obvious, and are among additional benefits to be enjoyed by residential users, all enabled by a TIA-570-A infrastructure in the home.

# 3332. Re: New version 4nec2 freeware antenna optimizer

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-09 11:39:29 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10rgebi3l5i7g3a@corp.supernews.com>
Source record: 85529

For information about obtaining an NEC-4 license, see
http://www.llnl.gov/IPandC/technology/software/softwaretitles/nec.php.

Roy Lewallen, W7EL

Frank wrote:

>
> No, do not have license, or GNEC. Just thinking about upgrading to NEC4.

# 3333. Re: TV antenna question.....

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-09 13:35:31 UTC
From: raiar@bbs.galilei.com.nospam
Message-ID: <41b84f5d.1007303046@news.galilei.com>
Source record: 85530

Hi Hank

Since your doing a full gut rehab anyhow!

Here are a few ideas that we often do during upscale renovations.
The cost is negligible before the walls go up.
In the den, we run a 3/4 PVC conduit from a pull box in the den, both upwards to the attic and downwards to the basement for future unknown technological advances. We sometimes do the same thing in the master bedroom.
All homes are daisy chain wired to every room with two 4 wire telephone and two 6 wire shielded cable each in their respective pullboxes, plus from the central utility area two 75 ohm coax are run to a pullbox in each room.
In addition to the AC electric, from the utility area we often install low voltage DC wiring to bathrooms, bedrooms, hallways, etc. for emergency lighting. And on rare occasions piping for oxygen to master bedroom, kitchen and den.
And the security service wiring to doors and windows.
And the zone controls for HVAC, etc.
If you intend on having a hobby room, it's nice to have it vented and plumbed as a wet bar as well.
Now, if your a HAM!
Don't forget the SHACK, hi hi, it should have the very BEST of all amenities and grounded cable routes, etc.

TTUL
Gary

# 3334. Re: W9OKA 80/75 Dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-09 14:19:52 UTC
From: Bob Schreibmaier <k3ph@ptd.net>
Message-ID: <f5qdncZA9I-YwiXcUSdV9g@ptd.net>
Source record: 85531

Can't. He's deceased.

In article <10rfpp7qvurn213@corp.supernews.com>, nagel@core.com says...
>
>
>Bob Schreibmaier wrote:
>
>> I'm looking for plans for building a W9OKA 80/75
>> meter dipole. Also, if anyone has used one of
>> these antennas, I would like to hear from you.
>>
>> Thanks in advance.
>>
>> 73,
>> Bob
>>
>Bob;
>
>To to QRZ.com or ARRL.ORG and lookup the call sign. Email the ham direct
>for information.
>
>Dave WD9BDZ

--
+---------------------------------------------+
| Bob Schreibmaier K3PH | E-mail: k3ph@ptd.net |
| Kresgeville, PA 18333 | http://www.dxis.org |
+---------------------------------------------+

# 3335. Re: Mr Bean ( An M3 Reply )

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-09 15:08:59 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <31r8h4F3ds49kU1@individual.net>
Source record: 85534

And the start is not the end - that of gaining a licence
and going straight on the air.

You start at the beginning and not the end.

Playing around with resistances in series and parallel,
perhaps using low voltage light bulbs is the start.

"Simon Smith" <s.Smith@btinternet.com> wrote in message
news:cp7uea$ihj$1@titan.btinternet.com...
> You are entitled to your opinion - and I respect it but please - everyone
> has to be allowed to start somewhere.

## 3336. SmartSmith1.6.2 deployment

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-09 15:11:15 UTC
From: 4nec2@gmx.net
Message-ID: <ee90361b.0412090711.f17d86@posting.google.com>
Source record: 85532

Robert,

I would suggest to create your 'install.exe' on the oldest (W-95, -98) system you have available and on which the software is running. When creating your 'install.exe' the (old version) dll's and ocx's for this 'old' system are included in the package.

Old version dll's mostly are upwards compatable for running on 'new' systems, whereas new dll's sometimes contain new 'features' which are not compatible with the older systems.

However, don't forget to test on your most up-to-date machine.

At least that's my experience using 95, 98, Me and 2000

Arie.

# 3337. Re: Mr Bean ( An M3 Reply )

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-09 15:12:08 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <31r8h5F3ds49kU2@individual.net>
Source record: 85533

"Ham Radio" is most certainly not trying to "weed out"
those who seek that technical standards be maintained,
and who encourage others to be technically motivated, for
that is what Ham Radio is all about.

CBers and CBers-Masquerading-As-Radio-Hams might have
that sort of agenda, however.

I append a short article to assist you in disambiguating the two.

"Simon Smith" <s.Smith@btinternet.com> wrote in message
news:cp7uea$ihj$1@titan.btinternet.com...
> If I migh say so Mr. Bean - You sound just like the sort of person that
"Ham
> Radio" is trying to weed out and be rid of. Your attitude is in the
> minority.

What is Ham Radio?

Ham Radio is a technical pursuit for those who
are interested in the science of radio wave
propagation and who are also interested in the
way that their radios function. It has a long-standing
tradition of providing a source of engineers who
are born naturals.

Ham Radio awakens in its aficionados a whole-life
fascination with all things technical and gives
an all-abiding curiosity to improve one's scientific
knowledge. It's a great swimming pool, please dive in!

This excitement causes a wish to share the experience
with ones fellow man, and shows itself in the
gentlemanly traditions of Ham Radio.

Radio Hams are qualified to design, build and then
operate their own pieces of equipment. They do this
with gusto, and also repair and modify their own
equipment.

The excitement that drives a Radio Ham starts with
relatively simple technologies at first, perhaps making
his own Wimshurst machine and primary cells. Small pieces
of test equipment follow, possibly multimeters and signal
generators. Then comes receivers and transmitters. It is with
the latter that communication with like-minded technically
motivated people takes off. The scope for technical

development grows with the years
and now encompasses DSP and DDS. There is also a great deal
of excitement in the areas of computer programming to
be learnt and applied.

The technical excitement motivates Radio Hams to compete
with each other to determine who has designed and manufactured
the best-quality station. This competitiveness is found in DXing,
competitions and fox-hunts.

-----OOOOO----

However, beware! A Ham Radio licence is such a
desirable thing to have that there are large
numbers of people who wish to be thought of
as Radio Hams when, in fact, they are nothing
of the kind! Usually such people are a
variation of the CB Radio hobbyist; they buy their
radios off the shelf and send them back to be
repaired; they are not interested in technical discussion
and sneer at those who are; they have no idea how
their radios work inside and have no wish to find out;
they are free with rather silly personal insults;
they have not satisfied any technical qualification
and their licences prevent the use of
self-designed-and-built equipment.

These CB types engage in the competitive activities
with their Cheque-Book-purchased off-the-shelf radios
in a forlorn effort to prove that they are Radio Hams.

No _REAL_ Radio Hams are deceived by such people!

# 3338. Re: TV antenna & cabling question ...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-09 15:18:40 UTC
From: w9gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <k1_td.539729$D%.536970@attbi_s51>
Source record: 85535

"Gary V. Deutschmann, Sr." <raiar@bbs.galilei.com.nospam> wrote in message
news:41b84f5d.1007303046@news.galilei.com...
> Hi Hank
>
> Since your doing a full gut rehab anyhow!
>
> Here are a few ideas that we often do during upscale renovations.
> The cost is negligible before the walls go up.
> In the den, we run a 3/4 PVC conduit from a pull box in the den, both
> upwards to the attic and downwards to the basement for future unknown
> technological advances. We sometimes do the same thing in the master
> bedroom.
> All homes are daisy chain wired to every room with two 4 wire
> telephone and two 6 wire shielded cable each in their respective
> pullboxes, plus from the central utility area two 75 ohm coax are run
> to a pullbox in each room.
>
> Gary
>

The usage of a pathway (conduit, etc.) is always a good idea for future additions for your structure home cabling (especially heavily used areas)

"Daisy chaining" is NO longer the acceptable physical installation practice for home structured cabling (EIA/TIA 570-A standard). This was the practice by the Bell Operating companies for telephone cabling before its breakup in 1984 .. and is mentioned as a legacy method used before the adoption of the EIA/TIA standards. The standard also addresses 75 ohm video cabling (TV, etc.) as well as have foundation standards (568 and 569) more suited for larger commercial or business installations.

The standardized practice for structure cabling in new installations (and remodeling or major retro-fits) is for "home-run" wiring from each outlet from a central location (cabling in a physical star topology) with a distance limitation of no more than 100 meters from equipment to the telecommunications outlet. BICSI also performs certification of structured cabling installers (electricians, contractors) for both residential and commercial installations.

Do a Google search on EIA/TIA 570-A ; structured cabling or BICSI and you will find the necessary information. The major cabling vendors (Leviton, Systemax(old AT&T cable), etc.) also have this pertinent information.

I only point this out, since I am a professional consultant in this area --- and find the "daisy chain" approach for physical cable installation still practiced and approved by municipalities and contractors ... UNAWARE of

these standards ... now 10 years old and reviewed on an annual basis through the EIA and TIA organizations.

gb

# 3339. Re: New version 4nec2 freeware antenna optimizer

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-09 15:24:18 UTC
From: Frank <ve6cb@NOSPAM.telus.net>
Message-ID: <C6_td.3570$eb3.3158@clgrps13>
Source record: 85536

Thanks for the info Roy.

Regards,

Frank

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:10rgebi3l5i7g3a@corp.supernews.com...
> For information about obtaining an NEC-4 license, see
> http://www.llnl.gov/IPandC/technology/software/softwaretitles/nec.php.
>
> Roy Lewallen, W7EL
>
> Frank wrote:
>
>>
>> No, do not have license, or GNEC. Just thinking about upgrading to NEC4.

# 3340. Re: W9OKA 80/75 Dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-09 15:28:00 UTC
From: Dan Richardson <dwr@mailinator.com>
Message-ID: <8mrgr0pbhm1slj96htuog66ru70du2tlsa@4ax.com>
Source record: 85537

On Thu, 09 Dec 2004 09:19:52 -0500, Bob Schreibmaier <k3ph@ptd.net>
wrote:

>Can't. He's deceased.
>
It seems someone else has taken over and is producing the antennas.

http://w9oka.com/

Danny, K6MHE

## 3341. 80 Meter Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-09 15:59:42 UTC
From: Bill Cherepy <jcherepy@comcast.net>
Message-ID: <3etgr0l89l83ar6v5d8dvc0598hsanmp3k@4ax.com>
Source record: 85538

I did some measuring and I have room to put up a loop 267 feet long, making it an 80 meter loop. Would this make a good antenna for 80 thru 10? I'm currently using an Alpha Delta DX-CC mutiband Dipole.

Thanks,

Bill Cherepy
Grayson, GA

## 3342. Re: TV antenna & cabling question ...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-09 16:14:04 UTC
From: Allodoxaphobia <bit-bucket@config.com>
Message-ID: <slrncrguec.2uc5.bit-bucket@shell.config.com>
Source record: 85539

```
On Thu, 09 Dec 2004 15:18:40 GMT, w9gb hath writ:
> "Gary V. Deutschmann, Sr." <raiar@bbs.galilei.com.nospam> wrote in message
> news:41b84f5d.1007303046@news.galilei.com...
>> Hi Hank
>>
>> Since your doing a full gut rehab anyhow!
>>
>> Here are a few ideas that we often do during upscale renovations.
>> The cost is negligible before the walls go up.
>> In the den, we run a 3/4 PVC conduit from a pull box in the den, both
>> upwards to the attic and downwards to the basement for future unknown
>> technological advances. We sometimes do the same thing in the master
>> bedroom.
>> All homes are daisy chain wired to every room with two 4 wire
>> telephone and two 6 wire shielded cable each in their respective
>> pullboxes, plus from the central utility area two 75 ohm coax are run
>> to a pullbox in each room.
>>
>
> The usage of a pathway (conduit, etc.) is always a good idea for future
> additions for your structure home cabling (especially heavily used areas)
>
> "Daisy chaining" is NO longer the acceptable physical installation practice
> for home structured cabling (EIA/TIA 570-A standard). This was the practice
> by the Bell Operating companies for telephone cabling before its breakup in
> 1984 .. and is mentioned as a legacy method used before the adoption of the
> EIA/TIA standards. The standard also addresses 75 ohm video cabling (TV,
> etc.) as well as have foundation standards (568 and 569) more suited for
> larger commercial or business installations.
>
> The standardized practice for structure cabling in new installations (and
> remodeling or major retro-fits) is for "home-run" wiring from each outlet
> from a central location (cabling in a physical star topology) with a
> distance limitation of no more than 100 meters from equipment to the
> telecommunications outlet. BICSI also performs certification of structured
> cabling installers (electricians, contractors) for both residential and
> commercial installations.
>
> Do a Google search on EIA/TIA 570-A ; structured cabling or BICSI and you
> will find the necessary information. The major cabling vendors (Leviton,
> Systemax(old AT&T cable), etc.) also have this pertinent information.
>
> I only point this out, since I am a professional consultant in this area ---
> and find the "daisy chain" approach for physical cable installation still
```

> practiced and approved by municipalities and contractors ... UNAWARE of
> these standards ... now 10 years old and reviewed on an annual basis through
> the EIA and TIA organizations.

I second the comment re: daisy chaining telco wiring.
Several months ago I did a self-install of DSL here. And, from past
'projects' putting in 'extra' phones in various rooms, I knew the
hay-wire daisy chain scheme I had (circa. 1977) -- going all 'round
the attic -- thence to the finished basement and snaking through the
stud walls there. What I ended up doing was installing my own NIB
(Network Interface Box) just downstream from the telco NIB. There I
installed a DSL filter on the daisy chain line headed for attic.
Ahead of the DSL filter I installed a new line and pulled it into
the home office. Not a lick of trouble with DSL since day 1.

Going the other route: installing DSL filters at each outlet
along the daisy chain did *not* give me a warm and fuzzy feeling.
I felt there would still be plenty of opportunity for RF noise
to get into the long daisy chain (read: random wire antenna) --
which would degrade the DSL operation. Too, I was concerned
about the interaction (both ways) between the DSL signals and
my amateur radio activity.

Just last week I did a DSL install for a small, local real estate
office -- two agents and a receptionist -- 3 PC's (that were
here-to-fore freestanding.) They had a punch-down block in the
basement for 2 'voice' lines and 1 'fax' line -- with separate lines
running off to phones and fax. Simple install: I installed a DSL
filter on the fax line (the line carrying DSL) right at the punch-down
block -- breaking out a new, short line to the DSL modem/router and
hub thingies which I mounted on a shelf close by. From there it was
'simple' to pull CAT-5 cable to each of the 3 PC's upstairs.

I'd say: pay the telco to put in a punch-down block -- and run
two lines in from the street or alley (even if you only plan on
using 1 line -- now.) Then run 2-pair from 'everywhere' in the
house to the punch-down block -- but tie back (store) the ones
that are not (yet) in use.

HTH
Jonesy
--
| Marvin L Jones | jonz | W3DHJ | linux
| Gunnison, Colorado | @ | Jonesy | OS/2 __
| 7,703' -- 2,345m | config.com | DM68mn SK

# 3343. Re: SmartSmith1.6.2 deployment

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-09 16:33:50 UTC
From: w9dmk@crosslink.net
Message-ID: <41b87da7.1310985@news.crosslink.net>
Source record: 85540

On 9 Dec 2004 07:11:15 -0800, 4nec2@gmx.net wrote:

>Robert,
>
>I would suggest to create your 'install.exe' on the oldest (W-95, -98)
>system you have available and on which the software is running. When
>creating your 'install.exe' the (old version) dll's and ocx's for this
>'old' system are included in the package.
>
>Old version dll's mostly are upwards compatable for running on 'new'
>systems, whereas new dll's sometimes contain new 'features' which are
>not compatible with the older systems.
>
>However, don't forget to test on your most up-to-date machine.
>
>At least that's my experience using 95, 98, Me and 2000
>
>Arie.

Thank you, Arie. I fully agree. I actually test both the installation procedure and the performance of the installed product on Windows 98SE, Windows XP Pro, Windows ME, and Windows 2000 Server. Those are the only Windows machines that I have available. I.e., I do not have earlier than W98SE.

I already knew that there were problems with Windows ME. I had worked out this problem on the previous release, but simply forgot to do it on this latest release. I got lazy - Hi!

Bob, W9DMK, Dahlgren, VA
http://www.qsl.net/w9dmk

# 3344. Re: Mr Bean ( An M3 Reply )

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-09 18:07:39 UTC
From: Simon Smith <s.Smith@btinternet.com>
Message-ID: <cpa49a$8nd$1@titan.btinternet.com>
Source record: 85541

Ohh Well... Happy Christmas Mr Bean...
Simon
"Airy R. Bean" <me@privacy.net> wrote in message
news:31r8h4F3ds49kU1@individual.net...
> And the start is not the end - that of gaining a licence
> and going straight on the air.
>
> You start at the beginning and not the end.
>
> Playing around with resistances in series and parallel,
> perhaps using low voltage light bulbs is the start.
>
> "Simon Smith" <s.Smith@btinternet.com> wrote in message
> news:cp7uea$ihj$1@titan.btinternet.com...
>> You are entitled to your opinion - and I respect it but please - everyone
>> has to be allowed to start somewhere.
>
>

# 3345. Antenna Tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-09 18:25:13 UTC
From: "JimK2TL@gmail.com" <JimK2TL@gmail.com>
Message-ID: <1102616713.514469.35740@z14g2000cwz.googlegroups.com>
Source record: 85542

Hi
Does anyone know of a manufacturer of an ATU that places a 1:1 balun on
the input side, like the Palstar AT4K does? I like that tuner, but it
is a bit pricey. Just wondering who the competitors are, if any.
Thanks

# 3346. Re: 80 Meter Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-09 18:36:50 UTC
From: "JimK2TL@gmail.com" <JimK2TL@gmail.com>
Message-ID: <1102617410.865458.52630@f14g2000cwb.googlegroups.com>
Source record: 85543

Hi
How high? Vertical or horizontal? Fed with open wire?

# 3347. Re: Antenna Tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-09 19:28:35 UTC
From: Bob Miller <rmiller47@satx.rr.com>
Message-ID: <1m9hr0p9hqkd241bkhu8lkhd2traegn1bk@4ax.com>
Source record: 85545

On 9 Dec 2004 10:25:13 -0800, "JimK2TL@gmail.com" <JimK2TL@gmail.com>
wrote:

>Hi
>Does anyone know of a manufacturer of an ATU that places a 1:1 balun on
>the input side, like the Palstar AT4K does? I like that tuner, but it
>is a bit pricey. Just wondering who the competitors are, if any.
>Thanks

You could make your own 1:1 balun for a few bucks, and place it on
either side of the tuner. See W2DU's article:

http://home.iag.net/~w2du/Reflections2Chapter21SomeAspectsoftheBalunProblem.pdf

bob
k5qwg

# 3348. Re: Antenna Tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-09 19:49:15 UTC
From: pfriedmanNoSpam <p.paulfriedmanNoSpam@comcast.net>
Message-ID: <C4GdnTelhtWmMSXcRVn-qg@comcast.com>
Source record: 85544

"Bob Miller" <rmiller47@satx.rr.com> wrote in message
news:1m9hr0p9hqkd241bkhu8lkhd2traegn1bk@4ax.com...
> On 9 Dec 2004 10:25:13 -0800, "JimK2TL@gmail.com" <JimK2TL@gmail.com>
> wrote:
>
>>Hi
>>Does anyone know of a manufacturer of an ATU that places a 1:1 balun on
>>the input side, like the Palstar AT4K does? I like that tuner, but it
>>is a bit pricey. Just wondering who the competitors are, if any.
>>Thanks
>
> You could make your own 1:1 balun for a few bucks, and place it on
> either side of the tuner. See W2DU's article:
>
> http://home.iag.net/~w2du/Reflections2Chapter21SomeAspectsoftheBalunProblem.pdf
>
> bob
> k5qwg
>
>

Nice article. I guess QST used have technical articles, eh? :)

Paul AB0SI

## 3349. Re: TV antenna & cabling question ...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-09 20:20:12 UTC
From: w9gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <0s2ud.634467$mD.543497@attbi_s02>
Source record: 85548

"Allodoxaphobia" <bit-bucket@config.com> wrote in message
news:slrncrguec.2uc5.bit-bucket@shell.config.com...
> On Thu, 09 Dec 2004 15:18:40 GMT, w9gb hath writ:
>> "Gary V. Deutschmann, Sr." <raiar@bbs.galilei.com.nospam> wrote in
>> message
>> news:41b84f5d.1007303046@news.galilei.com...
>
> I second the comment re: daisy chaining telco wiring.
> Several months ago I did a self-install of DSL here. And, from past
> 'projects' putting in 'extra' phones in various rooms, I knew the
> hay-wire daisy chain scheme I had (circa. 1977) -- going all 'round
> the attic -- thence to the finished basement and snaking through the
> stud walls there. What I ended up doing was installing my own NIB
> (Network Interface Box) just downstream from the telco NIB. There I
> installed a DSL filter on the daisy chain line headed for attic.
> Ahead of the DSL filter I installed a new line and pulled it into
> the home office. Not a lick of trouble with DSL since day 1.
>
> [snip]
> HTH
> Jonesy
> --

Yes, one DSL filter at the "head-end" or entrance panel can address all of
the distribution issues with DSL. In fact, I prefer to keep the DSL modem
and router AT the head end.
Surplus network equipment that is more than adequate for home networking is
almost being given away these days.

I live the Leviton system, but have used others, as well as the original
plywood backer board and 66-block / 110 block installations

Leviton has a very good book (Adobe Acrobat that anyone can download) that
should be required reading for the planning stages. It's normally $ 10 BUT
the downloadable Acrobat copy is FREE
Covers ALL of the diagrams and techniques the are compatible with the
EIA/TIA standards.
This is a MUST for your local building contractor or DIY installer.
http://www.levitonvoicedata.com/learning/wiring.asp

Wiring Strategies Installation Guide (its a 2 Mb file)
http://www.levitonvoicedata.com/learning/documents/strategies.pdf

w9gb

# 3350. Re: TV antenna question.....

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-09 20:26:24 UTC
From: w9gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <Qx2ud.634473$mD.41953@attbi_s02>
Source record: 85546

"Hank" <fire@will.com> wrote in message
news:10rg2ed9rb4bu74@corp.supernews.com...
> Hello,
> I hope I'm in the right newsgroup.....
>
> I am totally remodeling my house.
> The walls are gutted down to the studs.
> I want to run any and all appropriate wires and cables before the drywall
> goes up.
> I want to receive UHF and VHF TV signals for my TV.
> Most people now get their signals via cable or satellite.
> I would be happy with just six channels or so.
> Thanks,
>
> Hank
>

The difference between RG-6 and RG-59 coaxial cable

What's the difference between RG-6 and RG-59 Cable?

RG-6 and RG-59 are two types of coaxial cables that can be used with F-type connectors for the distribution of RF signals for cable TV (CATV) and satellite (broadband), and BNC connectors for closed-circuit environments and data transmission (baseband).

RG-59 is a lower grade of coaxial cable, consisting of a small center conductor, a small insulating dielectric, and typically, a single outer shield. It delivers acceptable performance for all of the above-mentioned applications.

RG-6, on the other hand, has a larger center conductor, a dual or quad shield, and a much larger insulating dielectric, thus ensuring more bandwidth and a lower frequency loss per foot. It delivers exceptional performance for the above-mentioned applications, and is considered the cable of choice for digital TV.

## 3351. Browser

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-09 20:49:10 UTC
From: "aunwin@insightbb.com"
Message-ID: <aT2ud.231357$R05.32013@attbi_s53>
Source record: 85549

I am finding that WindowsXP is allowing 20 cookies (plus other stuff ) a day
to attach to my computor which requires the use of another program to be
activated
every day to quarentine them. Thinking of going back to the Netscape browser
so as to
keep the computor cleen. Also interested in how much it would cost for
firewalls to bring
WindowsXP back to the protective level of Netscape 7.1.
Comments
(Yes I know it is not antenna related, unless you
need a computor to read antenna postings or use WindowsXP for antenna
software!)
Art

# 3352. Re: TV antenna question .....

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-09 21:20:26 UTC
From: w9gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <uk3ud.214467$HA.5716@attbi_s01>
Source record: 85547

"Hank" <fire@will.com> wrote in message
news:10rg2ed9rb4bu74@corp.supernews.com...
> Hello,
> I hope I'm in the right newsgroup.....
>
> I am totally remodeling my house.
> The walls are gutted down to the studs.
> I want to run any and all appropriate wires and cables before the drywall
> goes up.
> I want to receive UHF and VHF TV signals for my TV.
> Most people now get their signals via cable or satellite.
> I would be happy with just six channels or so.
>
> Thanks,
>
Quality 3/4" exterior grade plywood can easily serve as a centralized wiring center (TV, telephone, computer network) for service demarcations and termination point for the house wiring (coax, UTP and fiber), in some cases -- space or esthetics dictate other approaches or solutions for a centralized wiring center.

When you do not have no basement, need a "flush mounting" cabinet (that fits between standard 16" stud construction) and have esthetic considerations within the house .....
I like to install and use the Leviton Structured Media Center.
http://www.levitonvoicedata.com/catalog/BuildPage.aspx?BuildPageID=223

I installed one of these Leviton enclosures last year at my brother's home (1-story ranch) which was built in the mid-1990s. Leviton SMC enclosures are available at Home Depot, Lowes and numerous electrical distributors that carry Leviton (e.g. TriState Electronics, Mt. Prospect, IL).

Installed the Leviton model 420 (large unit) flush in his garage wall. This larger enclosure allows for the eventual incorporation of a security system and a whole house audio/sound system.

Today, the SMC supports two Category 5e unshielded twisted pair (UTP) cables and 1 RG-6/U quad shielded coax cable terminated at a telecommunications outlet (every room of the house). Specific room locations (e.g. video/sound media center, home office/computer area; large family room) were wired with additional jacks or outlets to accommodate specific equipment needs, future growth and the ability to move furniture within large rooms (and hide cables).

The installation was standardized on telecommunication outlets from Leviton's QuickPort Decora Multimedia Insert collection. This matched the

existing Leviton Decora electrical switches and outlets (in both color and design - esthetic considerations) throughout the house.
I primarily used the 4-port inserts with some 2 and 3 port inserts at specific locations of the house for specific usage.

Complete installation took about one week (2003 Thanksgiving week):

Maintain all telephone, CATV, home network and Internet services during installation (This does contribute to the longer installation timeline)
Installation work could only be performed between 9 AM and 5 PM, with mandatory clean-up tasks at 4:30 PM (This was due to the week chosen and specific hosting and family commitments)
Rough in Leviton Structured Media Center (SMC)
Pull new Category 5e cables (about 24 runs)
Pull new Quad shielded RG-6/U coax (about 12 runs)
Reroute high quality CATV cables for reuse (3 runs).
Route all cabling through attic space and establish primary cable pathways within attic space (minimizing pathways adjacent to home electrical cabling)
Install multimedia (coax) 3x8 distribution unit (supports satellite, cable and video inputs)
New service drops (CATV) to SMC from 2 local providers (Newnan Utilities and Charter cable)
New electrical circuit run for main circuit breaker box (power to the SMC)
Reroute Bell South telephone drop and demarcation to SMC enclosure

Remove original owner's Quad (obsolete 4-wire) telephone cabling throughout house. Former owner was a building contractor who installed existing cabling infrastructure (He was clueless on structured cabling or standards). BTW, if you get DSL services many Baby Bells will not support internal quad cabling .. and either wire to specific point or advise you to rewire the house.
Remove existing (poor quality) RG-59 coax and distribution (splitter) system.

Full 100 Mb (Fast Ethernet) home network and CATV services are supported throughout house, with 802.11(b) "WiFi" capabilities added this past summer.

The only way to go, a "Plug-n-Play" house.

w9gb

# 3353. Re: Browser

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-09 21:31:09 UTC
From: Jim - NN7K <nn7kexk7zfg@NOSPAMsbcglobal.net>
Message-ID: <xu3ud.56805$QJ3.35475@newssvr21.news.prodigy.com>
Source record: 85551

If you are going to do that - go to " Mozilla.org " as understand, they created Netscape's software -- and get their new browser "Mozilla Firefox " and their companion e-mail server " Mozilla Thunderbird" - both are freebies and, that the ones I useing- has all the conveniences of outlook/and I.E. 6, but seems to be friendlier to blocking junk, and not as vulnerable to the security holes that M/S has. Give it a try ! Jim NN7K

aunwin@insightbb.com , Art, wrote:
> I am finding that WindowsXP is allowing 20 cookies (plus other stuff ) a day
> to attach to my computor which requires the use of another program to be
> activated
> every day to quarentine them. Thinking of going back to the Netscape browser
> so as to
> keep the computor cleen. Also interested in how much it would cost for
> firewalls to bring
> WindowsXP back to the protective level of Netscape 7.1.
> Comments
> (Yes I know it is not antenna related, unless you
> need a computor to read antenna postings or use WindowsXP for antenna
> software!)
> Art
>
>

# 3354. Feeding 30 Mtrs into a 40 Mtr Dipole - Losses ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-09 21:37:18 UTC
From: Gary
Message-ID: <cvghr051bk9fr542fk8d2j5ao5i09cfivt@4ax.com>
Source record: 85550

I've got about a 70 foot +/- run of RG-8X that I use to feed my 40 meter dipole. I also use the same feedline and dipole through an MFJ-949E tuner to operate on 30 meters with. Out of curiosity can someone tell me about how much a a signal loss I've got compared to having an antenna that's actually cut for 30 meters ?

Thanks in advance.

73 Gary K8IQ

## 3355. Balun/Unun help please.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-09 22:12:30 UTC
From: johnandsimone@aol.comQRM
Message-ID: <20041209171230.06574.00001670@mb-m15.aol.com>
Source record: 85552

Hi there,

I have a marine MF (1 to 7 Mhz) transmitter with only an antenna "screw terminal" for a long wire connection on the back of the set, rather than an SO239 or N type, and the set itself being grounded with copper sheet to a decent earth. My problem is, I need to feed an MF whip on the roof, some 50 feet away, through the building, offices etc, and dont really want the EMC and Health and Safety problems that would arise from 400W PEP happily radiating indoors with the recommended wire lead-in. So I'll need to use a feeder. I have decent low-loss coax (LMR type) but how do I couple it to the set? ..and to the whip (just a long-ish wire in fiberglass) at the other end. Im thinking an unbalanced to unbalanced transformer at both ends of the coax should do it, with both the tower and the set in the workshop grounded but the coax outer isolated. I have toroids that will do it, but how should I wind them? Im thinking MF ununs could be made by winding 10 or 12 turns of coax on suitable toroids. Is this reasonable or am I way off.

ALL suggestions, even those calling me a muppet :), will be very gratefully received.

Thanks, John G0WPA.

# 3356. Re: Browser

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-09 22:22:42 UTC
From: Bob Miller <rmiller47@satx.rr.com>
Message-ID: <lbjhr0p02nsl5vldp4gsn946ok9cn4t1ll@4ax.com>
Source record: 85553

On Thu, 09 Dec 2004 20:49:10 GMT, "aunwin@insightbb.com"
<aunwin@insightbb.com@insightbb.com> wrote:

>I am finding that WindowsXP is allowing 20 cookies (plus other stuff ) a day
>to attach to my computor which requires the use of another program to be
>activated
>every day to quarentine them. Thinking of going back to the Netscape browser
>so as to
>keep the computor cleen. Also interested in how much it would cost for
>firewalls to bring
>WindowsXP back to the protective level of Netscape 7.1.
>Comments
>(Yes I know it is not antenna related, unless you
>need a computor to read antenna postings or use WindowsXP for antenna
>software!)
>Art
>

I assume you've downloaded the free Service Pack 2 for Windows XP. It
adds all kinds of security features.

On Windows XP, you can go into the Control Panel to "Windows Firewall"
and activate it, if it is not already activated.

You can also go into Internet Explorer, to Tools, to Internet Options,
to Privacy, and increase your security to hold most, if not all,
Cookies in check.

Bob
k5qwg

# 3357. Re: Browser

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-09 22:29:31 UTC
From: "aunwin@insightbb.com"
Message-ID: <el4ud.737022$8_6.332037@attbi_s04>
Source record: 85554

Yup. Heard on a computor discussion that XP was as open as a barn door and over time
the computor got slower and slower. They also stated that Netscape apparently not
subject that much to attacks Didn't take much notice at the time until I bought a 3 Gig processor
and after a while checked how much junk had unknowingly been attached to it, one of which
had slowed me down till it shut down completely!
I wouldn't be surprised if this newsnet did add junk every time you linked to it.

"Jim - NN7K" <nn7kexk7zfg@NOSPAMsbcglobal.net> wrote in message news:xu3ud.56805$QJ3.35475@newssvr21.news.prodigy.com...
> If you are going to do that - go to " Mozilla.org " as understand, they
> created Netscape's software -- and get their new browser "Mozilla
> Firefox " and their companion e-mail server " Mozilla Thunderbird"
> - both are freebies and, that the ones I useing- has all the
> conveniences of outlook/and I.E. 6, but seems to be friendlier to
> blocking junk, and not as vulnerable to the security holes that M/S
> has. Give it a try ! Jim NN7K
>
>
> aunwin@insightbb.com , Art, wrote:
> > I am finding that WindowsXP is allowing 20 cookies (plus other stuff ) a day
> > to attach to my computor which requires the use of another program to be
> > activated
> > every day to quarentine them. Thinking of going back to the Netscape browser
> > so as to
> > keep the computor cleen. Also interested in how much it would cost for
> > firewalls to bring
> > WindowsXP back to the protective level of Netscape 7.1.
> > Comments
> > (Yes I know it is not antenna related, unless you
> > need a computor to read antenna postings or use WindowsXP for antenna
> > software!)
> > Art
> >
> >

# 3358. Re: Browser

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-09 23:21:35 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <a45ud.65155$fY.16629@bignews3.bellsouth.net>
Source record: 85555

"aunwin@insightbb.com" <aunwin@insightbb.com@insightbb.com> wrote in message
news:aT2ud.231357$R05.32013@attbi_s53...
> I am finding that WindowsXP is allowing 20 cookies (plus other stuff ) a
day
> to attach to my computor which requires the use of another program to be
> activated
> every day to quarentine them. Thinking of going back to the Netscape
browser
> so as to
> keep the computor cleen. Also interested in how much it would cost for
> firewalls to bring
> WindowsXP back to the protective level of Netscape 7.1.
> Comments
> (Yes I know it is not antenna related, unless you
> need a computor to read antenna postings or use WindowsXP for antenna
> software!)
> Art

I lost confidence in netscape when aol took it over.
Try mozilla firefox (it is free)
or
Avant browser (also free)
--- also download the free firewall (zoneAlarm) from zone labs
and-- free antivirus software (AVG)
and you can replace microsoft office with OpenOffice .org
and if you can find some scrap wire, we can talk about a free antenna
:-)

---
Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.807 / Virus Database: 549 - Release Date: 12/7/2004

# 3359. Re: 80 Meter Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-09 23:25:16 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <C75ud.65157$fY.4351@bignews3.bellsouth.net>
Source record: 85556

"Bill Cherepy" <jcherepy@comcast.net> wrote in message
news:3etgr0l89l83ar6v5d8dvc0598hsanmp3k@4ax.com...
> I did some measuring and I have room to put up a loop 267 feet long,
> making it an 80 meter loop. Would this make a good antenna for 80 thru
> 10? I'm currently using an Alpha Delta DX-CC mutiband Dipole.
>
> Thanks,
>
>
> Bill Cherepy
> Grayson, GA

yep - velly velly good

---
Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.807 / Virus Database: 549 - Release Date: 12/7/2004

# 3360. Re: Feeding 30 Mtrs into a 40 Mtr Dipole - Losses ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-09 23:27:58 UTC
From: jgboyles@aol.com
Message-ID: <20041209182758.21640.00001559@mb-m12.aol.com>
Source record: 85557

>I've got about a 70 foot +/- run of RG-8X that I use to feed my 40
>meter dipole.

>Out of curiosity can
>someone tell me about how much a a signal loss I've got compared to
>having an antenna that's actually cut for 30 meters ?

Hi Gary, According to my calculations the feedline loss is around 90%, so if you are running 100 watts, and the tuner is lossless, 90 watts are lost in RG-8X. The good news is 10% efficiency is only 1-2 S units down from 100% on the recieving end. The bad news is, no tuner is lossless.
You will have loss using a 40m dipole on 30m. Does that satisfy your curiosity:-)?
73 Gary N4AST

# 3361. Re: Balun/Unun help please.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-09 23:30:46 UTC
From: johnandsimone@aol.comQRM
Message-ID: <20041209183046.06574.00001682@mb-m15.aol.com>
Source record: 85558

Oh also,

Should I use the choke unun at the whip or at the TX or one at both ends?

Thanks again, John.

# 3362. Re: Balun/Unun help please.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-09 23:40:47 UTC
From: K7ITM <k7itm@aol.com>
Message-ID: <1102635647.600444.184530@f14g2000cwb.googlegroups.com>
Source record: 85559

You may be asking for help with a solution that isn't necessary, and also may not be sufficient to accomplish what you want. If the transmitter is capable of matching a variety of loads, it may be sufficient to simply run the coax from the transmitter to the roof, connecting at the transmitter end to the screw terminal (to the center coax conductor) and the transmitter's ground/chassis (to the outer coax conductor). At the roof end, connect the center conductor to the whip, and the outer to a ground plane...at least some radial wires, if there is no large metallic plate to connect to. But how will you know if the transmitter has properly matched to the load presented by the coax+antenna? It's usual to have some sort of tuner (perhaps already in the transmitter?), and perhaps an antenna at the other end of the coax that has a reasonable feedpoint impedance. It could result in a fairly high SWR on the line and still be reasonable, so long as the transmitter can match it. But I don't see that an "un-un" would do you much good in this case, unless you need galvanic isolation between the transmitter and the antenna. -- It also may be convenient to mount a different antenna connector to the transmitter, either in the existing sheet metal or on a small bracket attached near the existing screw terminal.

Cheers,
Tom

John - G0WPA wrote:
> Hi there,
>
> I have a marine MF (1 to 7 Mhz) transmitter with only an antenna
"screw
> terminal" for a long wire connection on the back of the set, rather
than an
> SO239 or N type, and the set itself being grounded with copper sheet
to a
> decent earth. My problem is, I need to feed an MF whip on the roof,
some 50
> feet away, through the building, offices etc, and dont really want
the EMC and
> Health and Safety problems that would arise from 400W PEP happily
radiating
> indoors with the recommended wire lead-in. So I'll need to use a
feeder. I have
> decent low-loss coax (LMR type) but how do I couple it to the set?
..and to the
> whip (just a long-ish wire in fiberglass) at the other end. Im
thinking an

> unbalanced to unbalanced transformer at both ends of the coax should
do it,
> with both the tower and the set in the workshop grounded but the coax
outer
> isolated. I have toroids that will do it, but how should I wind them?
Im
> thinking MF ununs could be made by winding 10 or 12 turns of coax on
suitable
> toroids. Is this reasonable or am I way off.
>
> ALL suggestions, even those calling me a muppet :), will be very
gratefully
> received.
>
> Thanks, John G0WPA.

# 3363. Re: TX Distance question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-10 00:09:10 UTC
From: johnandsimone@aol.comQRM
Message-ID: <20041209190910.06574.00001685@mb-m15.aol.com>
Source record: 85560

>Not a bad idea, if Wireman's Flex Weave is stainless steel. Anything
>else will be corroded before you know it. Perhaps stainless steel
>aircraft cable?

Absolutely. Replace your 50 feet of copper with stainless steel wire. Mount it carefully and you'll get 10 years out of that. Keep the tuner. Its one thing to have resonant lengths or traps on the harmonically related ham bands but someday, when the swell is 25 foot in a force 9 and your drifting towards rocks, being able to instantly tune and call on 2182Khz or one of the higher distress freqs may very well save your life, believe me, Im a lifeboat man. But, taking others views on board, as part of your regular planned maintenance (you do that dont you?), take the lid off your transciever AND tuner to check for corrosion, youll recognise it as white flaky stuff where the shiny bits were last year! Other than that, your tuner is no more likely to breakdown than anything else on your boat.

John, G0WPA

# 3364. Re: Balun/Unun help please.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-10 00:27:48 UTC
From: johnandsimone@aol.comQRM
Message-ID: <20041209192748.06574.00001686@mb-m15.aol.com>
Source record: 85561

>You may be asking for help with a solution that isn't necessary, and
>also may not be sufficient to accomplish what you want

Thanks Tom, you may be right. I should probably just feed the whip with coax and take some field strength measurments to assess the extent to which the outer is radiating. There may be no problem there at all!

>It's usual to have some sort of tuner (perhaps already
>in the transmitter?)

Yep, theres an aerial current meter.

>It also may be convenient to mount a
>different antenna connector to the transmitter, either in the existing
>sheet metal or on a small bracket attached near the existing screw
>terminal.

True, after all its already an unbalanced output!

>But I don't see that an "un-un" would do you
>much good in this case, unless you need galvanic isolation between the
>transmitter and the antenna.

Well, thats the problem, its to run in a cable tray with a lot of other feeders, alongside video!!!, radar control and various VHF receive cables. Maybe im being paranoid about it, but Im looking to eradicate every trace of RF from the outer of the coax, thats why im looking at isolation with chokes. But as you suggest, maybe there wont be a problem, I'll try it without, first!

Many thanks tom.

John, G0WPA

# 3365. Re: Antenna Tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-10 00:31:56 UTC
From: "JimK2TL@gmail.com" <JimK2TL@gmail.com>
Message-ID: <1102638716.260018.61530@f14g2000cwb.googlegroups.com>
Source record: 85562

Yes, thank you..I have been thinking about modifying an existing tuner with the balun on the output. The problem is that ALL components must be isolated from ground. I suppose I could pull that off, but it is not as simple as you might think, especially with a tuner that uses a tapped inductor in a T match. I t would probably be easier to float a roller inductor than a tapped inductor because of the switch. The caps are usually above ground already in a T match, so thats not a problem. I'm thinking about it, but it would be nice if there was a good affordable balanced tuner out there.
Jim

# 3366. Re: Browser

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-10 00:42:15 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <grqhr05jrsj5ks1tohp27he9s4c1sqncl0@4ax.com>
Source record: 85563

On Thu, 09 Dec 2004 22:29:31 GMT, "aunwin@insightbb.com"
<aunwin@insightbb.com@insightbb.com> wrote:

>Yup. Heard on a computor discussion that XP was as open as a barn door and
>over time
>the computor got slower and slower.

Hi Art,

I hear that so often now.

>They also stated that Netscape
>apparently not
> subject that much to attacks

Netscape has its own problems, but not like the MS suite.

>Didn't take much notice at the time until I
>bought a 3 Gig processor
>and after a while checked how much junk had unknowingly been attached to it,
>one of which
> had slowed me down till it shut down completely!

I only have to look at your headers to see you use Outlook Express
which is a piece of trash. It has the worst reputation as being a
virus whore.

> I wouldn't be surprised if this newsnet did add junk every time you linked
>to it.

News groups might be mined for emails for subsequent Spam, but there
is nothing in the NNTP (protocol) that would allow anyone to attach
anything to your computer. This kind of stuff comes automatically as
a customer enhancement by MS for IE and OE users and arrives by email
or through visits on the Web. There are no trojan horses, viruses,
cookies, advertising (pop up windows that is, there is still Spam of
course) or spyware that can infect your machine through participating
in newsgroup activity.

I've gotten what looks like a potential virus sent to me because they
got my name here. WAMU frequently is part of the subject heading or
in the message. This may not be a virus (as the ISP certifies it is
not) but rather a Phising link. No problem, my mail reader is not
going to run it, open it, or do anything without my permission. I
simply trash that stuff. Been doing that for 10 years with either
Eudora or Agent and never been burnt except once (trusted a friend) -
then fixed that the next day after the infected Comcast ISP servers

stopped thrashing themselves to death. Yup, they were using MS servers.

For anyone seriously interested in the mortar between their firewall bricks, go to:
http://grc.com/default.htm
and page down to the heading "Your Three Musketeers"
There are at least a half dozen security checks there that can inspect your machine for back doors and potential hacker access. Very simple software, loads fast, runs fast, and says quite plainly in English, "You are Safe" or "You are in Trouble."

73's
Richard Clark, KB7QHC

# 3367. Re: Browser

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-10 00:57:21 UTC
From: Mike Coslo <mcoslo@adelphia.net>
Message-ID: <SKCdnZbxcbrtaSXcRVn-sg@adelphia.com>
Source record: 85564

aunwin@insightbb.com wrote:
> I am finding that WindowsXP is allowing 20 cookies (plus other stuff ) a day
> to attach to my computor which requires the use of another program to be
> activated
> every day to quarentine them. Thinking of going back to the Netscape browser
> so as to
> keep the computor cleen. Also interested in how much it would cost for
> firewalls to bring
> WindowsXP back to the protective level of Netscape 7.1.
> Comments
> (Yes I know it is not antenna related, unless you
> need a computor to read antenna postings or use WindowsXP for antenna
> software!)

Hey Art, here are my suggestions:

1. Get Zonealarm, Preferably version 4.xx

3. Get Netscape, or one of the flavors of its engine, such as Firefox.
Use this to get your mail, and read newsgroups too.

4. Start Internet Exploder one last time. When Zonealarm pops up and
asks if Exploder can have access to the net, then click "remember" and
deny it permission.

By denying IEEEEEEE! permission to ever access the web on your machine,
you will be doing humanity a great favor. Same for Outlook.

If you get the paid version of Zonealarm, you can have it delete all
cookies every day. You can also select ones you want to keep, if any.

5. Consider using a proxy server such as Proxomitron,(freeware)
especially if you are on Cable, or DSL.

6. Always change the updates feature of your computer so that you
manually do the updates. If you automatically update, you will find that
Microsoft may make your computer more secure by making it less
operative! 8^)

Hope this helps!

- Mike KB3EIA -

# 3368. Re: Balun/Unun help please.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-10 00:59:51 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <l8shr0d6spbf4fh6b2nh25g3kmj3d8mqro@4ax.com>
Source record: 85565

On 09 Dec 2004 22:12:30 GMT, johnandsimone@aol.comQRM (John - G0WPA)
wrote:

>Hi there,
>
>I have a marine MF (1 to 7 Mhz) transmitter with only an antenna "screw
>terminal" for a long wire connection on the back of the set, rather than an
>SO239 or N type, and the set itself being grounded with copper sheet to a
>decent earth. My problem is, I need to feed an MF whip on the roof, some 50
>feet away, through the building, offices etc, and dont really want the EMC and
>Health and Safety problems that would arise from 400W PEP happily radiating
>indoors with the recommended wire lead-in. So I'll need to use a feeder. I have
>decent low-loss coax (LMR type) but how do I couple it to the set? ..and to the
>whip (just a long-ish wire in fiberglass) at the other end. Im thinking an
>unbalanced to unbalanced transformer at both ends of the coax should do it,
>with both the tower and the set in the workshop grounded but the coax outer
>isolated. I have toroids that will do it, but how should I wind them? Im
>thinking MF ununs could be made by winding 10 or 12 turns of coax on suitable
>toroids. Is this reasonable or am I way off.
>
>ALL suggestions, even those calling me a muppet :), will be very gratefully
>received.
>
>Thanks, John G0WPA.

Hi John,

If you are adventurous enough to open her up, replace the "screw
terminal" with an honest SO239 (or "N" or "BNC" or "RCA") bulkhead
connector. This will require you to probably open up the hole to
match connector dimensions and perhaps drill the bulkhead mating screw
holes. None of this is terribly hard.

Or simply get a SO239 (etc.) bulkhead connector and solder two wires
to it: one into the metal through one of the mounting holes, the other
to the conventional center conductor solder cup. Connect those two
wires to the set: the center conductor wire to the existing "screw
terminal" and the mounting hole wire to the chassis (add a sheet metal
self tapping screw nearby the "screw terminal", and make sure the
screw does not puncture anything on the other side of the chassis
face). Insulate exposed wiring with tape. Leads should be kept
short, less than 4 inches or so. Make sure these connections are
hardy, one lead open can take you right back to RF in the Office.

As to your other question, add a 1:1 Current BalUn (or UnUn if you
prefer) at the antenna end of your cable. Make sure it is adequate

for your operational frequencies.

73's
Richard Clark, KB7QHC

# 3369. Re: Browser

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-10 01:10:13 UTC
From: "aunwin@insightbb.com"
Message-ID: <VH6ud.167779$5K2.157273@attbi_s03>
Source record: 85566

Interesting.
So, do you still use Windows with a replacement for Outlook Express
together with the link that you pointed to or do you pay for extra computor
protection?
I must admit that I thought everything was as one should expect until I used
the free ' adware' to check how clean or dirty the computor was and I was
really shocked. Fortunately with the help of an inserted disc I am able to
run my antenna programs in what I see as a DOS emulator which allows me to
use high speed processing without the fear
of outside interference and slow down. I have heard that Netscape has its
problems but does not have enough useage
to attract bad guys and commercial collectors. Tho I have done computor
programming in Fortran and the like in the old days when we used punched
tape I must admit to being totally illiterate when computors changed over to
pre caned programming to which I turned up my nose too, only to find I was
quickly left behind and not adaptable to change.
Regards
Art

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:grqhr05jrsj5ks1tohp27he9s4c1sqncl0@4ax.com...
> On Thu, 09 Dec 2004 22:29:31 GMT, "aunwin@insightbb.com"
> <aunwin@insightbb.com@insightbb.com> wrote:
>
> >Yup. Heard on a computor discussion that XP was as open as a barn door
and
> >over time
> >the computor got slower and slower.
>
> Hi Art,
>
> I hear that so often now.
>
> >They also stated that Netscape
> >apparently not
> > subject that much to attacks
>
> Netscape has its own problems, but not like the MS suite.
>
> >Didn't take much notice at the time until I
> >bought a 3 Gig processor
> >and after a while checked how much junk had unknowingly been attached to
it,
> >one of which

> > had slowed me down till it shut down completely!
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> I only have to look at your headers to see you use Outlook Express
> which is a piece of trash. It has the worst reputation as being a
> virus whore.
>
> > I wouldn't be surprised if this newsnet did add junk every time you
linked
> >to it.
>
> News groups might be mined for emails for subsequent Spam, but there
> is nothing in the NNTP (protocol) that would allow anyone to attach
> anything to your computer. This kind of stuff comes automatically as
> a customer enhancement by MS for IE and OE users and arrives by email
> or through visits on the Web. There are no trojan horses, viruses,
> cookies, advertising (pop up windows that is, there is still Spam of
> course) or spyware that can infect your machine through participating
> in newsgroup activity.
>
> I've gotten what looks like a potential virus sent to me because they
> got my name here. WAMU frequently is part of the subject heading or
> in the message. This may not be a virus (as the ISP certifies it is
> not) but rather a Phising link. No problem, my mail reader is not
> going to run it, open it, or do anything without my permission. I
> simply trash that stuff. Been doing that for 10 years with either
> Eudora or Agent and never been burnt except once (trusted a friend) -
> then fixed that the next day after the infected Comcast ISP servers
> stopped thrashing themselves to death. Yup, they were using MS
> servers.
>
> For anyone seriously interested in the mortar between their firewall
> bricks, go to:
> http://grc.com/default.htm
> and page down to the heading "Your Three Musketeers"
> There are at least a half dozen security checks there that can inspect
> your machine for back doors and potential hacker access. Very simple
> software, loads fast, runs fast, and says quite plainly in English,
> "You are Safe" or "You are in Trouble."
>
> 73's
> Richard Clark, KB7QHC

# 3370. Re: Browser

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-10 01:29:56 UTC
From: "aunwin@insightbb.com"
Message-ID: <o_6ud.167873$5K2.53230@attbi_s03>
Source record: 85567

"Mike Coslo" <mcoslo@adelphia.net> wrote in message
news:SKCdnZbxcbrtaSXcRVn-sg@adelphia.com...
> aunwin@insightbb.com wrote:
> > I am finding that WindowsXP is allowing 20 cookies (plus other stuff ) a
day
> > to attach to my computor which requires the use of another program to
be
> > activated
> > every day to quarentine them. Thinking of going back to the Netscape
browser
> > so as to
> > keep the computor cleen. Also interested in how much it would cost for
> > firewalls to bring
> > WindowsXP back to the protective level of Netscape 7.1.
> > Comments
> > (Yes I know it is not antenna related, unless you
> > need a computor to read antenna postings or use WindowsXP for antenna
> > software!)
>
> Hey Art, here are my suggestions:
>
> 1. Get Zonealarm, Preferably version 4.xx
>
> 3. Get Netscape, or one of the flavors of its engine, such as Firefox.
> Use this to get your mail, and read newsgroups too.
>
> 4. Start Internet Exploder one last time. When Zonealarm pops up and
> asks if Exploder can have access to the net, then click "remember" and
> deny it permission.
>
> By denying IEEEEEEE! permission to ever access the web on your machine,
> you will be doing humanity a great favor. Same for Outlook.
>
> If you get the paid version of Zonealarm, you can have it delete all
> cookies every day. You can also select ones you want to keep, if any.
>
> 5. Consider using a proxy server such as Proxomitron,(freeware)
> especially if you are on Cable, or DSL.
>
> 6. Always change the updates feature of your computer so that you
> manually do the updates. If you automatically update, you will find that
> Microsoft may make your computer more secure by making it less
> operative! 8^)
>

> Hope this helps!

Mike
EVERY thing I am getting is a real help and an education for me
I did get a private E mail that high lighted a version of Netscape that with
a press of
+ or - you can make reading news much easier to read by enlarging the
script !
I am sure that there is more than one old guy like myself on this newsgroup
who would
apreciate such an aid . With respect to the advice coming in, I wonder how
many have
checked their computors with 'adware' to verify the veracity of what they
have stated?
Regarding the aditional purchase of 'Zonealarm' , I am trying to resist
placing more
money in to computors e.t.c.when the origional suppliers of programming
were derelict
in providing adequate protection in the first place, but I am not totally
stubborn to the idea
of admitting defeat.
Regards
Art

Regards
Art
> - Mike KB3EIA -
>

# 3371. Re: Browser

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-10 01:30:03 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <mnthr01ail4lmk71atm86i42041scmr0v3@4ax.com>
Source record: 85568

On Fri, 10 Dec 2004 01:10:13 GMT, "aunwin@insightbb.com"
<aunwin@insightbb.com@insightbb.com> wrote:

>Interesting.
> So, do you still use Windows with a replacement for Outlook Express
>together with the link that you pointed to or do you pay for extra computor
>protection?

I abandoned the home versions of Windows long long ago (I use Win2000
Pro). I got it pretty cheap as a computer upgrade, all I had to do
was buy some hardware to qualify, and I bought the hard disk that I
have it running on right now, in the old system (just added it as
drive two, and use the original drive for storage).

I have NEVER used Outlook Express. I bought Agent after using Free
Agent for a year. I wanted to combine my News reader with a Mail
reader that had very good filters. Those filters, once I trained
them, act like bug zappers and automatically trash Spam. I have 8
filters that steer acceptable email to different folders; I have 10
filters that deletes porn; I have 4 filters that ignore odds and ends
that I can look at if I want (but ends up in the trash anyway). Agent
is $35 and I've been using it for 8 years.

I am also using Firefox now (it lit up in seconds where Netscape
stumbled along). I also use Agnitum Outpost Firewall (free version).
It always lets me know when some piece of trash wants to call home. I
say no, and then take out the trash.

>I must admit that I thought everything was as one should expect until I used
>the free ' adware' to check how clean or dirty the computor was and I was
>really shocked. Fortunately with the help of an inserted disc I am able to
>run my antenna programs in what I see as a DOS emulator which allows me to
>use high speed processing without the fear
>of outside interference and slow down. I have heard that Netscape has its
>problems but does not have enough useage
>to attract bad guys and commercial collectors.

That has nothing to do with it. It is the "features" of IE and OE
that are the back doors to the system. Do you want to share your
printer with the world? MS thinks you do, and has designed this into
their OS as a special feature for your "benefit."

>Tho I have done computor
>programming in Fortran and the like in the old days when we used punched
>tape I must admit to being totally illiterate when computors changed over to
>pre caned programming to which I turned up my nose too, only to find I was

>quickly left behind and not adaptable to change.

It just runs faster. Being bigger means no one person really
understands it all. When the operating systems were 15,000 bytes big,
you could figure it out in a weekend. Multiply that by a million
weekends. Only Chinese teenagers have that kind of patience.

73's
Richard Clark, KB7QHC

# 3372. Re: Antenna Tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-10 01:32:00 UTC
From: denton <denton@oregontrail.net>
Message-ID: <10rhv4b77ou9dfd@corp.supernews.com>
Source record: 85569

As a ham of over 25 years experience and most of those using a ladder line fed 80 meter doublet, I would highly recommend procuring an old Johnson Matchbox. These units were made back in the '50s, very well made and will match on all bands, except 30 meters, from 80 thru 10 meters.
They are a link coupled transmatch, made excusively for use with ladder line or twin lead.
There are a lot of them advertised on eBay.

<JimK2TL@gmail.com> wrote in message news:1102638716.260018.61530@f14g2000cwb.googlegroups.com...
> Yes, thank you..I have been thinking about modifying an existing tuner
> with the balun on the output. The problem is that ALL components must
> be isolated from ground. I suppose I could pull that off, but it is
> not as simple as you might think, especially with a tuner that uses a
> tapped inductor in a T match. I t would probably be easier to float a
> roller inductor than a tapped inductor because of the switch. The
> caps are usually above ground already in a T match, so thats not a
> problem. I'm thinking about it, but it would be nice if there was a
> good affordable balanced tuner out there.
> Jim
>

# 3373. Re: Antenna Tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-10 02:04:58 UTC
From: "J. Mc Laughlin" <jcm@power-net.net>
Message-ID: <10ri12297jm9ua3@corp.supernews.com>
Source record: 85570

MFJ has at least a couple of "balanced" devices that place a choke type
balun on the transmitter side of the device. As I recall, MFJ uses a piece
of coax with Teflon dielectric that is surrounded with unknown material.
73 Mac N8TT

--
J. Mc Laughlin; Michigan U.S.A.
Home: JCM@Power-Net.Net
<JimK2TL@gmail.com> wrote in message
news:1102616713.514469.35740@z14g2000cwz.googlegroups.com...
> Hi
> Does anyone know of a manufacturer of an ATU that places a 1:1 balun on
> the input side, like the Palstar AT4K does? I like that tuner, but it
> is a bit pricey. Just wondering who the competitors are, if any.
> Thanks
>

# 3374. Re: TX Distance question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-10 02:22:33 UTC
From: "aunwin@insightbb.com"
Message-ID: <JL7ud.165856$V41.81657@attbi_s52>
Source record: 85571

"John - G0WPA" <johnandsimone@aol.comQRM> wrote in message
news:20041209190910.06574.00001685@mb-m15.aol.com...
snip

Im a lifeboat man.

Oh if only I had your fortitude and courage.
Storms around the U.K.rocky shores require special men
who have no thoughts of mortality
Cheers
Art

> Bsnip> anything else on your boat.
>
> John, G0WPA
>
>

# 3375. Re: Browser

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-10 02:33:58 UTC
From: Allodoxaphobia <bit-bucket@config.com>
Message-ID: <slrncri2om.1ir0.bit-bucket@shell.config.com>
Source record: 85472

On Thu, 09 Dec 2004 20:49:10 GMT, aunwin@insightbb.com hath writ:
> I am finding that WindowsXP is allowing 20 cookies (plus other stuff ) a day
> to attach to my computor which requires the use of another program to be
> activated
> every day to quarentine them. Thinking of going back to the Netscape browser
> so as to
> keep the computor cleen. Also interested in how much it would cost for
> firewalls to bring
> WindowsXP back to the protective level of Netscape 7.1.
> Comments
> (Yes I know it is not antenna related, unless you
> need a computor to read antenna postings or use WindowsXP for antenna
> software!)
> Art

How many times do you have to be told?
Firefox
Firefox Firefox
Firefox Firefox Firefox
Firefox Firefox Firefox Firefox
Firefox Firefox Firefox Firefox Firefox
Firefox Firefox Firefox Firefox Firefox Firefox
Firefox Firefox Firefox Firefox Firefox Firefox Firefox
Firefox Firefox Firefox Firefox Firefox Firefox Firefox Firefox
Firefox Firefox Firefox Firefox Firefox Firefox Firefox Firefox Firefox
Firefox Firefox Firefox Firefox Firefox Firefox Firefox Firefox Firefox Firefox

:-)

The other recommendation, of course is _linux_ ! I've been nearly 100%
on linux here since migrating away from OS/2 over a year ago. I went to
OS/2 back in 1992 after getting hit with the "Stoned" PC virus -- the olde,
floppy disk boot sector style -- on Windows 3.1.
I've never looked back, and never regreted it.

Oh, yes -- almost forgot : Firefox!

gl
Jonesy
--
| Marvin L Jones | jonz | W3DHJ | linux
| Gunnison, Colorado | @ | Jonesy | OS/2 __
| 7,703' -- 2,345m | config.com | DM68mn SK

# 3376. Re: Feeding 30 Mtrs into a 40 Mtr Dipole - Losses ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-10 03:17:54 UTC
From: Frank <ve6cb@NOSPAM.telus.net>
Message-ID: <Cz8ud.14264$U47.690@clgrps12>
Source record: 85473

Gary, since your data are so different from mine, you have to tell me where
I went wrong.

Thanks,

Frank

"JGBOYLES" <jgboyles@aol.com> wrote in message
news:20041209182758.21640.00001559@mb-m12.aol.com...
> >I've got about a 70 foot +/- run of RG-8X that I use to feed my 40
>>meter dipole.
>
>>Out of curiosity can
>>someone tell me about how much a a signal loss I've got compared to
>>having an antenna that's actually cut for 30 meters ?
>
> Hi Gary, According to my calculations the feedline loss is around 90%, so
> if
> you are running 100 watts, and the tuner is lossless, 90 watts are lost in
> RG-8X. The good news is 10% efficiency is only 1-2 S units down from 100%
> on
> the recieving end. The bad news is, no tuner is lossless.
> You will have loss using a 40m dipole on 30m. Does that satisfy your
> curiosity:-)?
> 73 Gary N4AST

# 3377. Re: Browser

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-10 03:40:08 UTC
From: "aunwin@insightbb.com"
Message-ID: <sU8ud.543266$D%.202088@attbi_s51>
Source record: 85474

"Allodoxaphobia" <bit-bucket@config.com> wrote in message
news:slrncri2om.1ir0.bit-bucket@shell.config.com...
> On Thu, 09 Dec 2004 20:49:10 GMT, aunwin@insightbb.com hath writ:
> > I am finding that WindowsXP is allowing 20 cookies (plus other stuff ) a
day
delete

Ok,Ok,Ok e.t.c
Since Mike gave specific directions as to what to do to get the job done so
I am leaning towards
most of what he suggests ( don't under stand the proxy server bit tho).
Thanks to everybody tho for their inputs including those you gave a better
choice to the one that I am leaning towards. Need to get back to antennas or
swr before the net policeman scolds me for using this net for unofficial
postings
Best Regards.
Regarding operation.. they vacuumed all the parts that was left of my
fragile
gall bladder after it crumpled .Unfortunately they got nosy and took a
sliver
of my liver among other things and are suggesting that I must be some
sort of hidden alcoholic ( I am teatotal but they take some convincing,
tho I do admit
to a glass of wine for toasting at a wedding some months ago)
Maybe we can attribute the
internal mayhem to this laptop and Windows XP, sperm count doesn't matter
now.
Art

>
> How many times do you have to be told?
> Firefox
> Firefox Firefox
> Firefox Firefox Firefox
> Firefox Firefox Firefox Firefox
> Firefox Firefox Firefox Firefox Firefox
> Firefox Firefox Firefox Firefox Firefox Firefox
> Firefox Firefox Firefox Firefox Firefox Firefox Firefox
> Firefox Firefox Firefox Firefox Firefox Firefox Firefox Firefox
> Firefox Firefox Firefox Firefox Firefox Firefox Firefox Firefox Firefox
> Firefox Firefox Firefox Firefox Firefox Firefox Firefox Firefox Firefox
Firefox
>
> :-)
>

> The other recommendation, of course is _linux_ ! I've been nearly 100%
> on linux here since migrating away from OS/2 over a year ago. I went to
> OS/2 back in 1992 after getting hit with the "Stoned" PC virus -- the
olde,
> floppy disk boot sector style -- on Windows 3.1.
> I've never looked back, and never regreted it.
>
> Oh, yes -- almost forgot : Firefox!
>
> gl
> Jonesy
> --
> | Marvin L Jones | jonz | W3DHJ | linux
> | Gunnison, Colorado | @ | Jonesy | OS/2 __
> | 7,703' -- 2,345m | config.com | DM68mn SK

# 3378. Re: Balun/Unun help please.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-10 04:32:26 UTC
From: Crazy George <muNnscOh@attSglPobaAl.nMet>
Message-ID: <41b929eb_2@news1.prserv.net>
Source record: 85475

John:

1 to 7 MHz is almost 3 octaves, and no simple antenna is going to present a usable impedance match to the coax over that
range. Are you operating a spot frequency, a narrow band, or do you need the full range? If the latter, then you
better look at remote antenna tuners, although I do not know of any which go below 1.6 MHz. Because, no matter what
chokes, etc. you install, you will never decouple the outside of the coax from the antenna field enough to be able to
successfully run it in a tray with low level signals. Been there, tried to do that. One thing you will eventually
learn, forget the half-antenna (whip) and put up a dipole. Then, you have a fighting chance to keep the antenna
currents in the antenna where you want them, and not on the outside of the feedline, which thinks it is the other half
of the antenna when you employ a whip, even with radials. At 1 MHz, the radials need to be almost 300 feet long.
--
Crazy George
W5VPQ
Remove N O and S P A M imbedded in return address

"John - G0WPA" <johnandsimone@aol.comQRM> wrote in message
news:20041209171230.06574.00001670@mb-m15.aol.com...
> Hi there,
>
> I have a marine MF (1 to 7 Mhz) transmitter with only an antenna "screw
> terminal" for a long wire connection on the back of the set, rather than an
> SO239 or N type, and the set itself being grounded with copper sheet to a
> decent earth. My problem is, I need to feed an MF whip on the roof, some 50
> feet away, through the building, offices etc, and dont really want the EMC and
> Health and Safety problems that would arise from 400W PEP happily radiating
> indoors with the recommended wire lead-in. So I'll need to use a feeder. I have
> decent low-loss coax (LMR type) but how do I couple it to the set? ..and to the
> whip (just a long-ish wire in fiberglass) at the other end. Im thinking an
> unbalanced to unbalanced transformer at both ends of the coax should do it,
> with both the tower and the set in the workshop grounded but the coax outer
> isolated. I have toroids that will do it, but how should I wind them? Im
> thinking MF ununs could be made by winding 10 or 12 turns of coax on suitable
> toroids. Is this reasonable or am I way off.
>
> ALL suggestions, even those calling me a muppet :), will be very gratefully
> received.
>

> Thanks, John G0WPA.

# 3379. Re: Browser

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-10 04:50:02 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <SU9ud.126182$IQ.262@bignews6.bellsouth.net>
Source record: 85476

> I lost confidence in netscape when aol took it over.
> Try mozilla firefox (it is free)
> or
> Avant browser (also free)
> --- also download the free firewall (zoneAlarm) from zone labs
> and-- free antivirus software (AVG)
> and you can replace microsoft office with OpenOffice .org
> and if you can find some scrap wire, we can talk about a free antenna
> :-)
>

The Avant browser is really a good one - maybe even better than Mozilla
Firefox
- Mosaic, though may not suite your needs.
but by all means - anything but IE

---
Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.807 / Virus Database: 549 - Release Date: 12/7/2004

# 3380. Re: Browser

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-10 04:57:02 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <r%9ud.126227$IQ.8340@bignews6.bellsouth.net>
Source record: 85477

```
>
> How many times do you have to be told?
> Firefox
> Firefox Firefox
> Firefox Firefox Firefox
> Firefox Firefox Firefox Firefox
> Firefox Firefox Firefox Firefox Firefox
> Firefox Firefox Firefox Firefox Firefox Firefox
> Firefox Firefox Firefox Firefox Firefox Firefox Firefox
> Firefox Firefox Firefox Firefox Firefox Firefox Firefox Firefox
> Firefox Firefox Firefox Firefox Firefox Firefox Firefox Firefox Firefox
> Firefox Firefox Firefox Firefox Firefox Firefox Firefox Firefox Firefox
Firefox
***********
But what do you think of ** Firefox**
**************
I like firefox, too - but have you tried 'Avant' ?
you may be pleasantly surprised -
but oops - it may not work with linux
**********
and mozilla also has a good mail client / newsgroup reader (Thunderbird)
**********

> :-)
>
> The other recommendation, of course is _linux_ ! I've been nearly 100%
> on linux here since migrating away from OS/2 over a year ago. I went to
> OS/2 back in 1992 after getting hit with the "Stoned" PC virus -- the
olde,
> floppy disk boot sector style -- on Windows 3.1.
> I've never looked back, and never regreted it.
>
> Oh, yes -- almost forgot : Firefox!
>
> gl
> Jonesy

---
Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.807 / Virus Database: 549 - Release Date: 12/7/2004
```

# 3381. Re: Feeding 30 Mtrs into a 40 Mtr Dipole - Losses ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-10 04:58:40 UTC
From: kelly@dvol.com
Message-ID: <1102654720.008364.31260@f14g2000cwb.googlegroups.com>
Source record: 85478

Gary wrote:
> I've got about a 70 foot +/- run of RG-8X that I use to feed my 40
> meter dipole. I also use the same feedline and dipole through an
> MFJ-949E tuner to operate on 30 meters with. Out of curiosity can
> someone tell me about how much a a signal loss I've got compared to
> having an antenna that's actually cut for 30 meters ?
>
> Thanks in advance.

For 30M ops I suspect that you'd be much better off if you temporarily shorted the center conductor and the braid of the coax together and turned the feedline + dipole into a top-loaded vertical. Build a "shorting widget" out of an SO-239 in order to be able quick-change bands (sort of). On 40M feed it as a dipole as usual. On 30M install the "shorting widget" on the 8X 259 connector, feed the widget from the "random wire" connection on the back of the 949E and tune up. Attach a couple 25 foot radials to 949E ground post.

> 73 Gary K8IQ

w3rv

## 3382. Third hand light makes a great stocking stuffer

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-10 06:24:17 UTC
From: W7RBR <rbriver@yahoo.com>
Message-ID: <libud.544523$D%.421348@attbi_s51>
Source record: 85479
Cross-posted to: pdx.forsale,rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.swap

I use these head lamps to get at the dark spots behind the equipment table.
They work great when trying to plug into the speaker jack and not the key
jack. Just leave this link where the XYL can see it.

http://www.lighttorch.com/index.html

Happy Holidays!
W7RBR

# 3383. Re: Browser

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-10 06:41:53 UTC
From: kelly@dvol.com
Message-ID: <1102660913.593727.290070@z14g2000cwz.googlegroups.com>
Source record: 85480

Richard Clark wrote:
> On Thu, 09 Dec 2004 22:29:31 GMT, "aunwin@insightbb.com"
> <aunwin@insightbb.com@insightbb.com> wrote:
>

> >and after a while checked how much junk had unknowingly been
attached to it,
> >one of which
> > had slowed me down till it shut down completely!
>
> I only have to look at your headers to see you use Outlook Express
> which is a piece of trash. It has the worst reputation as being a
> virus whore.

No, it's a TOXIC whore . . !

> . . . This may not be a virus (as the ISP certifies it is
> not) but rather a Phising link. No problem, my mail reader is not
> going to run it, open it, or do anything without my permission. I
> simply trash that stuff. Been doing that for 10 years with either
> Eudora or Agent . . .

I've been running Eudora since Win 3.1.1 days, beautiful, just plain clean, simple and to the point beautiful. Even though it doesn't have many of the bells & whistles Outlook has. I don't need Microsloth's autodialer, etc.

Since you're running Agent maybe you can answer a question Richard. Backgrounder: 'Wayback I used Free Agent which worked like a champ. In those days I accessed USENET via my ISP's paid subscription to some second-tier USENET servers. My ISP is a litle dialup/DSL store-front operation here in the neighborhood. Under circumstances and for reasons long lost in my brainbone I've been accessing the newsgroups via Google instead of his service for a number of years. Which is getting *really* annoying. In the meanwhile my ISP dropped his old USENET subsciption by virtue of non-use by his customers which leaves me dangling.

I'm very inclined to get back to using Agent even if I have to pay for it (sob!). How, exactly Richard, do you access the USENET groups with Agent?

> 73's
> Richard Clark, KB7QHC

w3rv

# 3384. Re: Balun/Unun help please.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-10 07:12:12 UTC
From: Mike <km6ab@pacbell.net>
Message-ID: <g%bud.31425$zx1.17442@newssvr13.news.prodigy.com>
Source record: 85481

It sounds like you have an older marine transceiver with built in
antenna coupler, which is not uncommon. A tech would install the radio
and match the whip (non resonant) and random wire feeder by choosing
coil taps and tweeking a cap for each channel. The channel selector will
now select the correct coil/cap to match properly the antenna. If the
radio or antenna is moved you must retune the network to match the
antenna again. If this is the case here you would have to bypass the
coupler section and remote it to make the radio happy feeding coaxial
cable, probably a big project.
Mike

John - G0WPA wrote:
> Hi there,
>
> I have a marine MF (1 to 7 Mhz) transmitter with only an antenna "screw
> terminal" for a long wire connection on the back of the set, rather than an
> SO239 or N type, and the set itself being grounded with copper sheet to a
> decent earth. My problem is, I need to feed an MF whip on the roof, some 50
> feet away, through the building, offices etc, and dont really want the EMC and
> Health and Safety problems that would arise from 400W PEP happily radiating
> indoors with the recommended wire lead-in. So I'll need to use a feeder. I have
> decent low-loss coax (LMR type) but how do I couple it to the set? ..and to the
> whip (just a long-ish wire in fiberglass) at the other end. Im thinking an
> unbalanced to unbalanced transformer at both ends of the coax should do it,
> with both the tower and the set in the workshop grounded but the coax outer
> isolated. I have toroids that will do it, but how should I wind them? Im
> thinking MF ununs could be made by winding 10 or 12 turns of coax on suitable
> toroids. Is this reasonable or am I way off.
>
> ALL suggestions, even those calling me a muppet :), will be very gratefully
> received.
>
> Thanks, John G0WPA.

# 3385. Re: Browser

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-10 07:35:53 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <fcjir0dqgrbue5moqsh9ge17de8529546j@4ax.com>
Source record: 85482

On 9 Dec 2004 22:41:53 -0800, kelly@dvol.com wrote:

>I'm very inclined to get back to using Agent even if I have to pay for
>it (sob!). How, exactly Richard, do you access the USENET groups with
>Agent?

Hi Kelly,

The folks at Forte (agent) are also in the business of providing their own premium news feeds over the net for as low as $3 a month that would easily satisfy a text based interest. Visit:
http://www.forteinc.com/apn/index.php

You could still, easily get by on their current FreeAgent. Very robust and still cheap for the full featured version.

Access comes via Comcast. This means I have to come in through the connection. I also have an ISP who provides me a Primary Shell for one of my several Web sites, and I can get into their News Feed over the net. My Primary Shell "can" cost as low as $7 a month if you pay by credit card in 6 month blocks or you can get a modem connection for $16 a month (in 6 month blocks), anyway visit:
http://www.eskimo.com/

I pay much more, of course because I'm on high speed (not to speak of also having three web sites to support) - but then, its my work.

I'm not sure if that answers your question as to "how" I use it. Their help function answers that, but if you have configuration questions I can certainly help - I did that for Walt a couple years back. He sometimes curses Agent, but he isn't plagued by virus.

73's
Richard Clark, KB7QHC

# 3386. I PASS MY TEST ALSO THE EASY WAY.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-10 07:56:05 UTC
From: wildboy74@webtv.net
Message-ID: <4125-41B95695-345@storefull-3276.bay.webtv.net>
Source record: 85483

ALL I DID IS MAKE UP A CALL SIGN FROM QRZ DATA BASE. WHEN YOU SEE NOT
ON FILE. THEN YOU ARE A HAM BONE . RIGHT NOW I AM AN
TECH.WORKING ON MY EXTRA. EXTRA. CLASS.. HAAAAA 73S FROM
ALABAMA

# 3387. Re: Balun/Unun help please.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-10 08:30:21 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <D1yeEhGd6VuBFAsI@ifwtech.co.uk>
Source record: 85484

Crazy George wrote:
>John:
>
>1 to 7 MHz is almost 3 octaves, and no simple antenna is going to
>present a usable impedance match to the coax over that
>range. Are you operating a spot frequency, a narrow band, or do you
>need the full range? If the latter, then you
>better look at remote antenna tuners, although I do not know of any
>which go below 1.6 MHz. Because, no matter what
>chokes, etc. you install, you will never decouple the outside of the
>coax from the antenna field enough to be able to
>successfully run it in a tray with low level signals. Been there,
>tried to do that. One thing you will eventually
>learn, forget the half-antenna (whip) and put up a dipole. Then, you
>have a fighting chance to keep the antenna
>currents in the antenna where you want them, and not on the outside of
>the feedline, which thinks it is the other half
>of the antenna when you employ a whip, even with radials. At 1 MHz,
>the radials need to be almost 300 feet long.
>--

All very good points. What it comes down to is that a whip always needs some kind of ground/radials/counterpoise connection at its base. You need something to feed the whip *against*.

Older marine transmitters is that they tended to take a good 'ground' return for granted, so they only provided a single terminal for the antenna wire. If you convert to a coax output, it won't make any difference unless you have something to connect the shield of the coax to, out at the base of the whip. That "something" has to collect all the RF return current from the whip itself... and if it doesn't, all the building wiring and the outside of the coax will collect those currents instead.

If you think of your office building as a very small 'ship', but without the benefit of all-metal construction or a decent salt-water ground, this is not a promising situation. In today's electronic office environment, I'm afraid you are likely to be fighting a perpetual losing battle against EMC problems.

If this radio link matters, you'd do better to find another location for the transmitter and antenna.

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

# 3388. Re: I PASS MY TEST ALSO THE EASY WAY.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-10 13:04:43 UTC
From: Moneyman <goferbroke@millionaire.com>
Message-ID: <Fbhud.12129$Ae.1641@newsread1.dllstx09.us.to.verio.net>
Source record: 85485

Typical e-mail from a stupid ass hole. Too lazy to do things the right way, probably has momma still wiping his ass too. I HOPE you get busted - ass wipe. And you will, it's a matter of time. There are ways to tell who is licensed and who isn't. Subtle, but there. You'll give yourself up.

MM

"g g" <wildboy74@webtv.net> wrote in message
news:4125-41B95695-345@storefull-3276.bay.webtv.net...
> ALL I DID IS MAKE UP A CALL SIGN FROM QRZ DATA BASE. WHEN YOU SEE NOT
> ON FILE. THEN YOU ARE A HAM BONE . RIGHT NOW I AM AN
> TECH.WORKING ON MY EXTRA. EXTRA. CLASS.. HAAAAA 73S FROM
> ALABAMA
>

# 3389. Re: I PASS MY TEST ALSO THE EASY WAY.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-10 14:25:56 UTC
From: "JimK2TL@gmail.com" <JimK2TL@gmail.com>
Message-ID: <1102688756.463715.221540@z14g2000cwz.googlegroups.com>
Source record: 85486

There is a wise old saying I inherited from my father.." anything you get for nothing has no value".
Bootlegging offers no sense of pride or accomplishment. Sure, you can get on the air and find find another idiot with whom to have an idiots conversation. If that makes you happy, then happiness you will find. The rest of us will find our own genuine enjoyment, not based on fraud, but the real deal.
Jim

# 3390. Re: Feeding 30 Mtrs into a 40 Mtr Dipole - Losses ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-10 14:30:32 UTC
From: "JimK2TL@gmail.com" <JimK2TL@gmail.com>
Message-ID: <1102689032.439459.41990@c13g2000cwb.googlegroups.com>
Source record: 85487

The loss on coax with that kind of a mismatch is around 90%. You are
better off with open wire feeds, especially since you have a tuner
available..even if it is MFJ ( Hi ).
An open wire fed 40 meter dipole will produce a fine multiband
antenna..take that to the bank!
Jim

# 3391. Re: Browser

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-10 14:36:50 UTC
From: Wes Stewart <n7ws_@_yahoo.com>
Message-ID: <utcjr05u8bcmvde73o89i24o96672b8gs6@4ax.com>
Source record: 85488

On Fri, 10 Dec 2004 00:42:15 GMT, Richard Clark <kb7qhc@comcast.net>
wrote:

|
|For anyone seriously interested in the mortar between their firewall
|bricks, go to:
|http://grc.com/default.htm
|and page down to the heading "Your Three Musketeers"
|There are at least a half dozen security checks there that can inspect
|your machine for back doors and potential hacker access. Very simple
|software, loads fast, runs fast, and says quite plainly in English,
|"You are Safe" or "You are in Trouble."

McAfee VirusScan thought "I was in trouble" when I tried to download
one of these.

I'll stick to my oooold versions of Eudora, Free Agent and Firefox.

## 3392. Re: Mr Bean ( An M3 Reply )

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-10 14:44:36 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <31trfgF3ddkekU1@individual.net>
Source record: 85490

Crapmas you mean, an invention of those of the
mentally ill who find solace in the world of make-believe?

"Simon Smith" <s.Smith@btinternet.com> wrote in message
news:cpa49a$8nd$1@titan.btinternet.com...
> Ohh Well... Happy Christmas Mr Bean...

# 3393. Re: I PASS MY TEST ALSO THE EASY WAY.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-10 14:45:36 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <31trfgF3ddkekU2@individual.net>
Source record: 85489

You've heard of Britland's M3/CB Fools' Licence, then?

<JimK2TL@gmail.com> wrote in message
news:1102688756.463715.221540@z14g2000cwz.googlegroups.com...
> There is a wise old saying I inherited from my father.." anything you
> get for nothing has no value".

# 3394. Re: I PASS MY TEST ALSO THE EASY WAY.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-10 16:35:08 UTC
From: Serious Poster <SP@truth.net>
Message-ID: <0fkud.1083$ve.576@fed1read06>
Source record: 85491

In the off chance you are serious -- the minute you transmit on a Ham band -- the locals will look you up in the FCC data base and query you - if you are not licensed they will turn you in to the FCC. It is quite easy to determine if you are a licensed Ham. Finding a transmitter location is also no problem. The fines are very very severe.

If you doubt that -- look up FCC violations on the web. See URL: http://www.eham.net/articles/1744

Driving without a license is a sure way to get into deep trouble as is transmitting without a license on the Ham bands

This has happened in our area several times -- Hams are very protective of their bands.

Why not just buckle down and do things right. The tests are easy.

--
I post, therefore I am

"g g" <wildboy74@webtv.net> wrote in message
news:4125-41B95695-345@storefull-3276.bay.webtv.net...
> ALL I DID IS MAKE UP A CALL SIGN FROM QRZ DATA BASE. WHEN YOU SEE NOT
> ON FILE. THEN YOU ARE A HAM BONE . RIGHT NOW I AM AN
> TECH.WORKING ON MY EXTRA. EXTRA. CLASS.. HAAAAA 73S FROM
> ALABAMA
>

# 3395. Re: Browser

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-10 16:52:24 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <g9kjr0949n4iiapp3arotg7u97rgj9p04a@4ax.com>
Source record: 85492

On Fri, 10 Dec 2004 07:36:50 -0700, Wes Stewart <n7ws_@_yahoo.com>
wrote:

>McAfee VirusScan thought "I was in trouble" when I tried to download
>one of these.

Hi Wes,

I gave up on Virus software years ago too. They always seem to be one
infection behind.

The only time I got the sniffles would have had the bug waltzing right
by it undetected. If that's the level of competence I can get for $50
a year, I wonder what it would have cost for a package to have caught
that last bug that got me.

Anyway, those utilities offered by grc.com disinfect the system by
strengthening the natural defenses instead of trying to look at every
byte coming in the pipe. Virus-ware can be cpu hogs - or at least
they were when I sampled them a long time ago. When I watch my
friends grow moss waiting for their systems to boot beneath their
load, I must say that my bias remains confirmed.

73's
Richard Clark, KB7QHC

# 3396. Re: TV antenna & cabling question ...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-10 17:01:23 UTC
From: raiar@bbs.galilei.com.nospam
Message-ID: <41b9d19f.1106184687@news.galilei.com>
Source record: 85493

Hi gb

I agree!

I also was not quite clear in my statements either.

We only daisy chain each rooms telephone circuits from a central locatiion using loops in the pullboxes, having blank cover plates over those pullboxes until it is decided which one will suffice for the room furniture layout.

For computer we usually use the 75 ohm cable direct to the central area for internet, and for internal networking the 6 wire cable is used. It too runs from each room to the central area. If the internal network only goes to rooms B and D only those two connections are made in the central area.

In my house I have a shielded twisted pair going to each room, in each room it is daisy chained to all possible outlets, at least 1 on each wall, in some cases two on a couple of the walls. Unless it was used at one time, there are no connections within the pull boxes.

However one decides to handle their wiring and extra's it's better to have and not need than to not have at all.

Price is also a consideration! Running 6 telephone lines from a central area to each room in the home can get quite expensive and overly redundant for most home installations.

In addition, some cities charge 10 to 13 bucks extra on the permits for each pullbox installed, even when those pullboxes are used for non-permit required applications.

In my old house we had 46 outlets in the kitchen.
As if 46 were not enough already, the inspector required that we install 4 more additional outlets in areas we considered to be very hazardous to have outlets at all.
And sure enough, one of the extra duplexes we had to add, became a constant torment to us. Not from usage, its 'required' location was in a place where it was continually damaged and required regular replacement.
Another was in a location where water was splashed on it several times.
But you cannot fight the STUPIDITY of City Hall!

TTUL
Gary

# 3397. FS: Kenwood TS-870 Station

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-10 18:02:36 UTC
From: laborkei <laborkeiNOSPAM@hotmail.com>
Message-ID: <0vlud.65832$fY.6298@bignews3.bellsouth.net>
Source record: 85494
Cross-posted to: alt.ham-radio.marketplace,rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.swap

Just ordered a new Icom PROIII, need to sell the following.

I will be offering my Kenwood TS870, PS-52, and SP-31 Speaker, MC-90 Microphone as a package deal.

Have no idea what it is worth yet, but this radio is a "Cream Puff". Not a scratch on it, and covered with a towel when not in use.

There are some pictures of the radio on my Website.
Anyone interested, please drop me an email, address is on QRZ.com as well as URL.

73's

--

# 3398. For Sale: Kenwood TS-870 Station

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-10 18:15:46 UTC
From: laborkei <laborkeiNOSPAM@hotmail.com>
Message-ID: <nHlud.65834$fY.39070@bignews3.bellsouth.net>
Source record: 85495
Cross-posted to: alt.ham-radio.marketplace,rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.swap

Just ordered a new Icom PROIII, need to sell the following.
will be offering my Kenwood TS870, PS-52, and SP-31 Speaker, MC-90
Microphone as a package deal.

Have no idea what it is worth yet, but this radio is a "Cream Puff".
Not a scratch on it, and covered with a towel when not in use.

There are some pictures of the radio on my Website.
Anyone interested, please drop me an email, address is on QRZ.com as well as
URL.

73's

# 3399. Re: I PASS MY TEST ALSO THE EASY WAY.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-10 18:28:23 UTC
From: jcooper874@webtv.net
Message-ID: <11393-41B9EAC7-470@storefull-3273.bay.webtv.net>
Source record: 85497

this guy must be brave. i read the eham article he must been crazy talking on 2 meters. whithout a licenese .i could understand hf but not vhf or dont do it at all.

# 3400. Re: TV antenna & cabling question ...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-10 18:33:41 UTC
From: Troll watch <onwmapsg@no.spam.net>
Message-ID: <9_lud.477622$wV.382501@attbi_s54>
Source record: 85496

"Gary V. Deutschmann, Sr." <raiar@bbs.galilei.com.nospam> wrote in message
news:41b9d19f.1106184687@news.galilei.com...
> Hi gb
>
> I agree!
>
> I also was not quite clear in my statements either.
>
> We only daisy chain each rooms telephone circuits from a central
> locatiion using loops in the pullboxes, having blank cover plates over
> those pullboxes until it is decided which one will suffice for the
> room furniture layout.
>
> For computer we usually use the 75 ohm cable direct to the central
> area for internet, and for internal networking the 6 wire cable is
> used. It too runs from each room to the central area. If the
> internal network only goes to rooms B and D only those two connections
> are made in the central area.
>
> In my house I have a shielded twisted pair going to each room, in each
> room it is daisy chained to all possible outlets, at least 1 on each
> wall, in some cases two on a couple of the walls. Unless it was used
> at one time, there are no connections within the pull boxes.
>
> However one decides to handle their wiring and extra's it's better to
> have and not need than to not have at all.
>
> Price is also a consideration! Running 6 telephone lines from a
> central area to each room in the home can get quite expensive and
> overly redundant for most home installations.
>
> In addition, some cities charge 10 to 13 bucks extra on the permits
> for each pullbox installed, even when those pullboxes are used for
> non-permit required applications.
>[snip]
>
> TTUL
> Gary
>
I would like to know which municipality or government entity these building
codes (permit charges) are coming from. Category 5e cable is very
inexpensive and the number of telecommunication outlets does not change --
whether daisy-chained or home-run.
Daisy chaining STP cable just introduces potential ground loops, since no

single ground potential point is established (grounding section of NEC and EIA/TIA),

Luckily as long as the contractor does not staple the wire continuous along the studs (just at the "rough-in" plate) .. these nuisances are relatively easy to correct.

Who taught you this physical cabling method? It is also contrary to BICSI certifications.

The National Electrical Code has been changed to reflect the EIA/TIA standards for structured cabling and often takes precedence over local codes, UNLESS the local code is more stringent or specific for fire,health,safety reasons. For example, although ROMEX is permitted under code, DuPage county (IL) as well as city of Chicago strictly forbid its usage for electrical wiring. This stems from tragic fires and safety (e.g. 1959 elementary school fire in Chicago with large loss of life)

gb

# 3401. Re: TV antenna & cabling question ...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-10 18:36:44 UTC
From: Dave VanHorn <dvanhorn@dvanhorn.org>
Message-ID: <fKSdnXdD2Z0rcSTcRVn-gQ@comcast.com>
Source record: 85498

Thanks for the link, that was very timely.

I am days away from closing on a second house, where my existing bedroom shop will migrate to.
I've always greatly preferred homerunning everything, even back in my alarm days, in the late 70's.
Much easier to debug, much fewer problems.

I will need to do phones, cable, cat5, and some misc control signals.
I have a wiring panel coming, and a bunch of 66 blocks :)

Brings back the good old days. Some of my resedential alarms filled a 4x8 sheet on the wall, and had dedicated rooms. Doubly or triply redundant systems, with multiple sensing technologies, supervised wiring, phone and wireless reporting. Those were the days.

# 3402. For Sale: Kenwood TS-870 Station

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-10 18:56:10 UTC
From: laborkei <laborkeiNOSPAM@hotmail.com>
Message-ID: <ehmud.65841$fY.58348@bignews3.bellsouth.net>
Source record: 85499
Cross-posted to: alt.ham-radio.marketplace,rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.swap

> Just ordered a new Icom PROIII, need to sell the following.
> will be offering my Kenwood TS870, PS-52, and SP-31 Speaker, MC-90
> Microphone as a package deal.
>
> Have no idea what it is worth yet, but this radio is a "Cream Puff".
> Not a scratch on it, and covered with a towel when not in use.
>
> There are some pictures of the radio on my Website.
> Anyone interested, please drop me an email, address is on QRZ.com as well
> as URL.
>
> 73's
>
>

# 3403. Re: TV antenna & cabling question ...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-10 19:04:31 UTC
From: w9gb <onw9mapsgb@no.ar.spam.rl.net>
Message-ID: <2rmud.238679$R05.28711@attbi_s53>
Source record: 85500

"Dave VanHorn" <dvanhorn@dvanhorn.org> wrote in message
news:fKSdnXdD2Z0rcSTcRVn-gQ@comcast.com...
>
> Thanks for the link, that was very timely.
>
> I am days away from closing on a second house, where my existing bedroom
> shop will migrate to.
> I've always greatly preferred homerunning everything, even back in my
> alarm days, in the late 70's.
> Much easier to debug, much fewer problems.
>
> I will need to do phones, cable, cat5, and some misc control signals.
> I have a wiring panel coming, and a bunch of 66 blocks :)
>
> Brings back the good old days. Some of my resedential alarms filled a 4x8
> sheet on the wall, and had dedicated rooms. Doubly or triply redundant
> systems, with multiple sensing technologies, supervised wiring, phone and
> wireless reporting. Those were the days.
>
Dave,

Here are some photos of a local install (not mine) for TC and phone (> 10
years old now)
http://www.schmitzhouse.com/images/Video%20Dist.jpg

I was not a fan of placing this block on a joist (who wants to look up all
day)
http://www.schmitzhouse.com/Johns_Electronics_03.htm

His house inverter construction takes the prize for labor
http://www.schmitzhouse.com/Johns_Electronics_02.htm

Greg
http://www.schmitzhouse.com/Johns_Electronics_03.htm

# 3404. Re: I PASS MY TEST ALSO THE EASY WAY.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-10 19:14:26 UTC
From: Ether Hopper <EH@skip.net>
Message-ID: <mAmud.1168$ve.611@fed1read06>
Source record: 85501

No on HF also -- we had a clown here key up SSB with a kilowatt on 10M in the CW band -- he was 6 miles away -- we found him and advised him to desist -- he wisely complied.

Another idiot was at sea asking for phone patches -- gave bogus callsign -- we asked his name and hometown -- wrong answer,

Played along and he gave us the name of his boat !!!!!

Done turned him in.

--
RF Gotta Go SomeWhere

<jcooper874@webtv.net> wrote in message
news:11393-41B9EAC7-470@storefull-3273.bay.webtv.net...
> this guy must be brave. i read the eham article he must been crazy
> talking on 2 meters. whithout a licenese .i could understand hf but not
> vhf or dont do it at all.
>

# 3405. Simple, cheap antenna for portable use.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-10 19:50:39 UTC
From: Graeme <g_frith@bigpond.com>
Message-ID: <41b9fe11$0$25768$5a62ac22@per-qv1-newsreader-01.iinet.net.au>
Source record: 85502

Hi All..
I'm wishing to operate portable from a mountain top location
which has excellent 360 degree unobstructed views, and would be ideal for
the odd weekend of amateur radio operation when I get the chance. Problem
is, there are no trees at that location to use as mounting points for wire
antennas. I'm considering building a vertical antenna using aluminium tubing
that I could telescope together to a height of approx 16 to 17 feet. This
would allow me to tune the antenna to any band between 14MHz and 29MHz by
adjusting the length, and use my cars body as a ground plane. Problem is, I
have no idea how to afix a 16 foot vertical antenna to the top of my little
four cylinder car!
Can anyone suggest a simple way to do this with a minimum cash outlay?
I'd also be interested to hear of other suitable antenna ideas.
I'm very keen to get back on the bands after an absence of several years,
and operation from home is out of the question.

73 de Graeme.....

# 3406. Re: Simple, cheap antenna for portable use.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-10 20:06:42 UTC
From: Ether Hopper <EH@skip.net>
Message-ID: <mlnud.1587$ve.1285@fed1read06>
Source record: 85503

You can buy a 20 foot flag pole and a tire mount at URL:
http://www.unflags.com/tatimo.html

Or fabricate a tire mount for your homebrew antenna

Works well

--
RF Gotta Go SomeWhere

"Graeme" <g_frith@bigpond.com> wrote in message
news:41b9fe11$0$25768$5a62ac22@per-qv1-newsreader-01.iinet.net.au...
> Hi All..
> I'm wishing to operate portable from a mountain top location
> which has excellent 360 degree unobstructed views, and would be ideal for
> the odd weekend of amateur radio operation when I get the chance. Problem
> is, there are no trees at that location to use as mounting points for wire
> antennas. I'm considering building a vertical antenna using aluminium
> tubing
> that I could telescope together to a height of approx 16 to 17 feet. This
> would allow me to tune the antenna to any band between 14MHz and 29MHz by
> adjusting the length, and use my cars body as a ground plane. Problem is,
> I
> have no idea how to afix a 16 foot vertical antenna to the top of my
> little
> four cylinder car!
> Can anyone suggest a simple way to do this with a minimum cash outlay?
> I'd also be interested to hear of other suitable antenna ideas.
> I'm very keen to get back on the bands after an absence of several years,
> and operation from home is out of the question.
>
> 73 de Graeme.....
>
>

# 3407. Re: Feeding 30 Mtrs into a 40 Mtr Dipole - Losses ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-10 20:19:24 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10rk16f88dgfi9a@corp.supernews.com>
Source record: 85504

There's no doubt that many, or most, people could reduce their power by a factor of 10 and still communicate ok. But 10 dB isn't a trivial amount ("only 1-2 S units").

On my Icom 730, a 10 dB reduction will reduce an S9 reading to S6, S7 to S2, or S6 to below S1. Have you tried a 10 dB reduction in signal strength on your receiver and seen how the S meter responds?

If you had 10 dB feedline loss and decided you needed to get it back by increasing your antenna gain, you'd need a 7 element Yagi on a boom considerably longer than 1 wavelength. I can see it now -- an advertisement for a 7 element long-boom beam -- "One to two S-Units gain!"

Roy Lewallen, W7EL

JGBOYLES wrote:

>>I've got about a 70 foot +/- run of RG-8X that I use to feed my 40
>>meter dipole.
>
>
>>Out of curiosity can
>>someone tell me about how much a a signal loss I've got compared to
>>having an antenna that's actually cut for 30 meters ?
>
>
> Hi Gary, According to my calculations the feedline loss is around 90%, so if
> you are running 100 watts, and the tuner is lossless, 90 watts are lost in
> RG-8X. The good news is 10% efficiency is only 1-2 S units down from 100% on
> the recieving end. The bad news is, no tuner is lossless.
> You will have loss using a 40m dipole on 30m. Does that satisfy your
> curiosity:-)?
> 73 Gary N4AST

# 3408. Re: TV antenna & cabling question ...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-10 20:20:50 UTC
From: Dave VanHorn <dvanhorn@dvanhorn.org>
Message-ID: <Y-ednWkVKOqHmCfcRVn-jw@comcast.com>
Source record: 85505

> His house inverter construction takes the prize for labor
> http://www.schmitzhouse.com/Johns_Electronics_02.htm

Good lord..

> Greg
> http://www.schmitzhouse.com/Johns_Electronics_03.htm

nice pix. I'll need to do some cleanup before I can start in earnest, it used to be a rental, and the last tennant left "under duress". Still, it appraises for 20% more than I'm paying. :)
I've been in a large bedroom for about 8 years now, but the bedroom seems to have shrunk over time. That, and I air condition 10 months out of the year, due to the surplus of electric heat from the equipment.

I'm thinking in terms of a 6" pvc into the attic, some of the cables I need to pull thru are nearly an inch in diameter.

I wish I had some from my early days projects, but that would have been kind of a bad idea... Not to mention disallowed in many cases.. The last one I did professionally, was the office of the commander in chief, pacific fleet. Fun doing wiring with an armed marine behind you all day.

There was a time that I put 600 phone lines into a residential basement in wisconsin.

## 3409. Re: TV antenna & cabling question ...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-10 20:34:32 UTC
From: w9gb <onw9mapsgb@no.ar.spam.rl.net>
Message-ID: <sLnud.238975$R05.237390@attbi_s53>
Source record: 85507

"Dave VanHorn" <dvanhorn@dvanhorn.org> wrote in message
news:Y-ednWkVKOqHmCfcRVn-jw@comcast.com...
>
>> His house inverter construction takes the prize for labor
>> http://www.schmitzhouse.com/Johns_Electronics_02.htm
>
> Good lord..
>
> Nice pix. I'll need to do some cleanup before I can start in earnest, it
> used to be a rental, and the last tennant left "under duress". Still, it
> appraises for 20% more than I'm paying. :)
> I've been in a large bedroom for about 8 years now, but the bedroom seems
> to have shrunk over time. That, and I air condition 10 months out of the
> year, due to the surplus of electric heat from the equipment.
>
> I'm thinking in terms of a 6" pvc into the attic, some of the cables I
> need to pull thru are nearly an inch in diameter.
>
> I wish I had some from my early days projects, but that would have been
> kind of a bad idea... Not to mention disallowed in many cases.. The last
> one I did professionally, was the office of the commander in chief,
> pacific fleet. Fun doing wiring with an armed marine behind you all day.
>
> There was a time that I put 600 phone lines into a residential basement in
> Wisconsin.
>

In commercial installs, (multi-story high rises) I used two 4" sleeves
(three sleeves on some of the lower floors) between wiring closets on the
floors.

For residential, I usually use two or three runs of 2 inch schedule 40 PVC
electrical conduit (schedule 80 when required) and one of two runs of 1 inch
PVC conduit. Fits with most stud wall (2x4) construction and 2" is the
largest knockout size for the flush mount enclosures (electrical or
Leviton's SMC)

I keep the RG-6 coax runs in separate conduit from the UTP runs.

I save the 1 inch runs for special marked cables (service runs from outdoor
demarcations, alarm, etc.) OR for fiber optic cabling.

Greg

# 3410. Re: For Sale: Kenwood TS-870 Station

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-10 20:52:26 UTC
From: MRR <paccom2@sbcglobal.net>
Message-ID: <e0oud.57238$QJ3.49234@newssvr21.news.prodigy.com>
Source record: 85506
Cross-posted to: alt.ham-radio.marketplace,rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.swap

Very good. An equipment listing on the antenna and digital sites and then
he tells us to take a look at QRZ without giving a callsign.

This guy must be from 11 meters.

"laborkei" <laborkeiNOSPAM@hotmail.com> wrote in message
news:nHlud.65834$fY.39070@bignews3.bellsouth.net...
> Just ordered a new Icom PROIII, need to sell the following.
> will be offering my Kenwood TS870, PS-52, and SP-31 Speaker, MC-90
> Microphone as a package deal.
>
> Have no idea what it is worth yet, but this radio is a "Cream Puff".
> Not a scratch on it, and covered with a towel when not in use.
>
> There are some pictures of the radio on my Website.
> Anyone interested, please drop me an email, address is on QRZ.com as well
> as URL.
>
> 73's
>
>

# 3411. Re: Open wire source?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-10 21:17:45 UTC
From: PN2222A <bipolar@lithium.net>
Message-ID: <Znoud.40929$6q2.23637@newssvr14.news.prodigy.com>
Source record: 85508

http://www.linux.org

Wait.

Open source wire?

Oh.

Never mind!
"Bob P" <nospam@nospam.end> wrote in message
news:ArKdnd9Y_oNo0S3cRVn-gw@comcast.com...
> Anyone know of any outfits selling open wire line?
> I know how to homebrew it, just too lazy.
> Bob
> kb8tl / at / yahoo / dot / com
>
>
>

# 3412. Re: Simple, cheap antenna for portable use.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-10 21:29:37 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <ayoud.129702$jE2.70154@bignews4.bellsouth.net>
Source record: 85510

"Graeme" <g_frith@bigpond.com> wrote in message
news:41b9fe11$0$25768$5a62ac22@per-qv1-newsreader-01.iinet.net.au...
> Hi All..
> I'm wishing to operate portable from a mountain top location
> which has excellent 360 degree unobstructed views, and would be ideal for
> the odd weekend of amateur radio operation when I get the chance. Problem
> is, there are no trees at that location to use as mounting points for wire
> antennas. I'm considering building a vertical antenna using aluminium
tubing
> that I could telescope together to a height of approx 16 to 17 feet. This
> would allow me to tune the antenna to any band between 14MHz and 29MHz by
> adjusting the length, and use my cars body as a ground plane. Problem is,
I
> have no idea how to afix a 16 foot vertical antenna to the top of my
little
> four cylinder car!
> Can anyone suggest a simple way to do this with a minimum cash outlay?
> I'd also be interested to hear of other suitable antenna ideas.
> I'm very keen to get back on the bands after an absence of several years,
> and operation from home is out of the question.

get a cb antenna (102" whip) then make it longer by putting another whip at the end of it (use a small pipe with a couple of set-screws as a coupling.) - take a warm coat - its probably cold at the mountaintop this time of year.

---
Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.807 / Virus Database: 549 - Release Date: 12/7/2004

# 3413. Re: Feeding 30 Mtrs into a 40 Mtr Dipole - Losses ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-10 21:30:10 UTC
From: Gary
Message-ID: <k45kr0tpa51j3uoieltaiqvqueg5gpcukg@4ax.com>
Source record: 85509

On 10 Dec 2004 06:30:32 -0800, "JimK2TL@gmail.com" <JimK2TL@gmail.com>
wrote:

>The loss on coax with that kind of a mismatch is around 90%. You are
>better off with open wire feeds, especially since you have a tuner
>available..even if it is MFJ ( Hi ).
<grin>
>An open wire fed 40 meter dipole will produce a fine multiband
>antenna..take that to the bank!
>Jim

Thanks to all that replied. I knew it was probably somewhat lossy but
I didn't know it was as bad as has been pointed out. I'll have to
think about feeding it with open wire or twinlead when the weather is
more suitable here in Michigan.

73 and Thanks again.

Gary K8IQ

# 3414. Re: Feeding 30 Mtrs into a 40 Mtr Dipole - Losses ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-10 21:59:51 UTC
From: jgboyles@aol.com
Message-ID: <20041210165951.07087.00001646@mb-m10.aol.com>
Source record: 85511

>There's no doubt that many, or most, people could reduce their power by
>a factor of 10 and still communicate ok. But 10 dB isn't a trivial
>amount ("only 1-2 S units").

I didn't mean to imply it was "trival". I have a little 100 watt XCVR that I use moblie and on field day that has a low power (7 watts) setting that I sometimes use to reduce battery drain. The qso total drops, but it is not as drastic as you would think with a 10 dB power reduction. Of course on low power I only go back to the guys with big signals, to make that 10dB seem less of a problem.
I guess that 10 dB loss is all relative to where it is and what would be required to get it back.
73 Gary N4AST

## 3415. Re: TV antenna & cabling question ...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-10 22:14:26 UTC
From: Dave VanHorn <dvanhorn@dvanhorn.org>
Message-ID: <guqdnehTWeYngifcRVn-og@comcast.com>
Source record: 85512

> In commercial installs, (multi-story high rises) I used two 4" sleeves
> (three sleeves on some of the lower floors) between wiring closets on the
> floors.

I'd bet few of those had any 1 inch hardline running around :)

> I keep the RG-6 coax runs in separate conduit from the UTP runs.

Hmm.. Why? Shouldn't be any effect either way.

# 3416. Re: For Sale: Kenwood TS-870 Station

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-10 22:15:44 UTC
From: Dave Bushong <db@9y.com>
Message-ID: <6-ednZXZKJCMvSfcRVn-oA@adelphia.com>
Source record: 85513
Cross-posted to: alt.ham-radio.marketplace,rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.swap

MRR wrote:
> Very good. An equipment listing on the antenna and digital sites and then
> he tells us to take a look at QRZ without giving a callsign.
>
> This guy must be from 11 meters.
>
>
> "laborkei" <laborkeiNOSPAM@hotmail.com> wrote in message
> news:nHlud.65834$fY.39070@bignews3.bellsouth.net...
>
>>Just ordered a new Icom PROIII, [snipped]

And in some of the six groups where it was cross-posted, it appeared
three or more times.

I think I should turn the cancel-bot back on.

Dave

# 3417. Re: Feeding 30 Mtrs into a 40 Mtr Dipole - Losses ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-10 22:24:35 UTC
From: jgboyles@aol.com
Message-ID: <20041210172435.07087.00001647@mb-m10.aol.com>
Source record: 85514

>Gary, since your data are so different from mine, you have to tell me where
>I went wrong.
>

Hi Frank, I used one of Reg Edwards Dipole programs to get the line loss. At the time that was the fastest way I could think of to get some numbers. His program lets you describe the antenna, feedline, and frequency of interest and it gives a number of operating conditions including line loss.
As far as where you went wrong? May have been me that was wrong. I think I have TL program somewhere, but don't have time to look at the moment. I checked the impedance of the antenna a couple of ways, and it agrees with your calculation about 300+j700. The difference must be in the way the line loss is calculated?
73 Gary N4AST

# 3418. Re: TV antenna & cabling question ...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-10 22:25:38 UTC
From: w9gb <onw9mapsgb@no.ar.spam.rl.net>
Message-ID: <Cnpud.740397$8_6.364829@attbi_s04>
Source record: 85515

"Dave VanHorn" <dvanhorn@dvanhorn.org> wrote in message
news:guqdnehTWeYngifcRVn-og@comcast.com...
>
>> In commercial installs, (multi-story high rises) I used two 4" sleeves
>> (three sleeves on some of the lower floors) between wiring closets on the
>> floors.
>
> I'd bet few of those had any 1 inch hardline running around :)
>
>> I keep the RG-6 coax runs in separate conduit from the UTP runs.
>
> Hmm.. Why? Shouldn't be any effect either way.
>
Reduces problems (you never know who will follow you) with pulling future
RG-6 cables. Also the bend radius tolerances are different. IF UTP cables
are within same pathway the pulling crew has to be more gentle and careful.

Now if you have ever worked a large cabling installation ... you know that
words "gentle" and "careful" are a foreign language terms to many cabling
pulling crews.
Although when I have traveled with these crews .. they referred to the
airline baggage handlers (pre-9/11) as gorillas (former TV ad of a logistics
company).

gb

# 3419. Re: Third hand light makes a great stocking stuffer

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-10 22:27:23 UTC
From: John P Vassel <heckufaguy@hotmail.com>
Message-ID: <Xns95BBB193AF929heckufaguyhotmailcom@216.196.97.142>
Source record: 85516
Cross-posted to: pdx.forsale,rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.swap

"W7RBR" <rbriver@yahoo.com> wrote in news:libud.544523$D%.421348@attbi_s51:

> Happy Holidays!
> W7RBR
>

Did you not think we'd put your call signs address within miles of this companys address?

I dont really mind a nice product being pointed out, but I do take offense to you posting your own commercial business as 'a helping hint'.

john

# 3420. Re: W9OKA 80/75 Dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-10 22:32:05 UTC
From: Bob Schreibmaier <k3ph@ptd.net>
Message-ID: <kK6dnTPVVcN_vifcUSdV9g@ptd.net>
Source record: 85517

Thanks, Danny. I'm familiar with the site.
I would like to find out the principle of
the antennas and build one. Don't really
want to buy one.

I understand the basic principle is an open
sleeve design, but the parasitic element
seems to have some sort of series resonant
circuit. That's what I'd like to find out
the details about.

73,
Bob

In article <8mrgr0pbhm1slj96htuog66ru70du2tlsa@4ax.com>,
dwr@mailinator.com says...
>
>
>On Thu, 09 Dec 2004 09:19:52 -0500, Bob Schreibmaier <k3ph@ptd.net>
>wrote:
>
>>Can't. He's deceased.
>>
>It seems someone else has taken over and is producing the antennas.
>
>http://w9oka.com/
>
>Danny, K6MHE
>

--
+---------------------------------------------+
| Bob Schreibmaier K3PH | E-mail: k3ph@ptd.net |
| Kresgeville, PA 18333 | http://www.dxis.org |
+---------------------------------------------+

# 3421. Re: Open wire source?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-10 22:48:38 UTC
From: Dave Bushong <db@9y.com>
Message-ID: <79idnZ5aXfJauifcRVn-gg@adelphia.com>
Source record: 85519

Well, yeah! Open Source wire has been around for over a decade:

http://tinyurl.com/3kcte

PN2222A wrote:
> http://www.linux.org
>
>
>
>
> Wait.
>
>
> Open source wire?
>
>
> Oh.
>
> Never mind!
> "Bob P" <nospam@nospam.end> wrote in message
> news:ArKdnd9Y_oNo0S3cRVn-gw@comcast.com...
>
>>Anyone know of any outfits selling open wire line?
>>I know how to homebrew it, just too lazy.
>>Bob
>>kb8tl / at / yahoo / dot / com
>>
>>
>>
>
>
>

# 3422. Re: Feeding 30 Mtrs into a 40 Mtr Dipole - Losses ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-10 22:48:41 UTC
From: Frank <ve6cb@NOSPAM.telus.net>
Message-ID: <dJpud.17201$U47.11987@clgrps12>
Source record: 85518

Hi Gary, ok, glad that some of the numbers agree. I used NEC-Win Pro to calculate the antenna input Z.

In real terms there is only 4 dB between our numbers for transmission line loss, so not really a great amount. I am familiar with some of Reg's programs, and have found them in reasonable agreement with other methods, but have not tried his transmission line program.

The fact is, whatever the loss, the use of an open wire transmission line would reduce the losses to near zero -- then he would probably find his tuner could not match it!

73,

Frank
(VE6CB)

"JGBOYLES" <jgboyles@aol.com> wrote in message
news:20041210172435.07087.00001647@mb-m10.aol.com...
> >Gary, since your data are so different from mine, you have to tell me
> >where
>>I went wrong.
>>
>
> Hi Frank, I used one of Reg Edwards Dipole programs to get the line loss.
> At
> the time that was the fastest way I could think of to get some numbers.
> His
> program lets you describe the antenna, feedline, and frequency of interest
> and
> it gives a number of operating conditions including line loss.
> As far as where you went wrong? May have been me that was wrong. I
> think I
> have TL program somewhere, but don't have time to look at the moment. I
> checked the impedance of the antenna a couple of ways, and it agrees with
> your
> calculation about 300+j700. The difference must be in the way the line
> loss is
> calculated?
> 73 Gary N4AST

# 3423. Re: Browser

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-10 22:51:38 UTC
From: Dave Bushong <db@9y.com>
Message-ID: <79idnZlaXfLntSfcRVn-gg@adelphia.com>
Source record: 85520

aunwin@insightbb.com wrote:
> I am finding that WindowsXP is allowing 20 cookies (plus other stuff ) a day
> [...]

HEY!!!!!!!!!!!!!!!!!

REC . RADIO . AMATEUR . ANTENNA

# 3424. Re: Simple, cheap antenna for portable use.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-10 23:18:54 UTC
From: Graeme <g_frith@bigpond.com>
Message-ID: <41ba2ee0$0$25765$5a62ac22@per-qv1-newsreader-01.iinet.net.au>
Source record: 85521

Now that's inovative thinking! Thanks Hal. I'll give your suggestion a
closer look.
But I'll swap the warm coat for bottle of sunscreen and a pair of
sunglasses..
It's summer here in Sydney Australia!!
Cheers..

Hal Rosser <hmrosser@bellsouth.net> wrote in message
news:ayoud.129702$jE2.70154@bignews4.bellsouth.net...
>
> "Graeme" <g_frith@bigpond.com> wrote in message
> news:41b9fe11$0$25768$5a62ac22@per-qv1-newsreader-01.iinet.net.au...
> > Hi All..
> > I'm wishing to operate portable from a mountain top location
> > which has excellent 360 degree unobstructed views, and would be ideal
for
> > the odd weekend of amateur radio operation when I get the chance.
Problem
> > is, there are no trees at that location to use as mounting points for
wire
> > antennas. I'm considering building a vertical antenna using aluminium
> tubing
> > that I could telescope together to a height of approx 16 to 17 feet.
This
> > would allow me to tune the antenna to any band between 14MHz and 29MHz
by
> > adjusting the length, and use my cars body as a ground plane. Problem
is,
> I
> > have no idea how to afix a 16 foot vertical antenna to the top of my
> little
> > four cylinder car!
> > Can anyone suggest a simple way to do this with a minimum cash outlay?
> > I'd also be interested to hear of other suitable antenna ideas.
> > I'm very keen to get back on the bands after an absence of several
years,
> > and operation from home is out of the question.
>
> get a cb antenna (102" whip) then make it longer by putting another whip
at
> the end of it (use a small pipe with a couple of set-screws as a
> coupling.) - take a warm coat - its probably cold at the mountaintop this
> time of year.
>

>
>
>
> ---
> Outgoing mail is certified Virus Free.
> Checked by AVG anti-virus system (http://www.grisoft.com).
> Version: 6.0.807 / Virus Database: 549 - Release Date: 12/7/2004
>
>

# 3425. Re: Third hand light makes a great stocking stuffer

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-10 23:27:50 UTC
From: Dave Bushong <db@9y.com>
Message-ID: <eO6dnf3b4ZhrrSfcRVn-hA@adelphia.com>
Source record: 85422
Cross-posted to: pdx.forsale,rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.swap

John P Vassel wrote:
> "W7RBR" <rbriver@yahoo.com> wrote in news:libud.544523$D%.421348@attbi_s51:
>
>
>>Happy Holidays!
>>W7RBR
>>
>
>
> Did you not think we'd put your call signs address within miles of this
> companys address?
>
> I dont really mind a nice product being pointed out, but I do take offense
> to you posting your own commercial business as 'a helping hint'.
>
> john

John,

I mostly agree with you, but I have seen a lot worse in these groups,
and you have to give the guy credit for being truthful with his identity.

And just to keep it somewhat on-topic (I can't imagine how to do so with
this many groups), I've used a similar product that I got at Home Depot
(cheaper there), and I was AMAZED at how well it works, exactly the way
that RBR mentioned. When I'm digging around behind my computer, or
amplifier, or my HF rig, looking for the right jack, etc., it it 100x
better than using a lamp or handheld flashlight. I'm farsighted and
have to use glasses for anything closer than 3 feet, and bright light
really helps. Aha! My post is relevent! At least, to other old guys
like me.

Disclaimer: I don't know W7RBR nor anything about his business.

73,
Dave

# 3426. Re: Browser

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-11 01:30:58 UTC
From: Tom Ring <news0000@taring.org>
Message-ID: <41ba4dd3$0$91009$39cecf19@news.twtelecom.net>
Source record: 85423

Allodoxaphobia wrote:
> Firefox Firefox Firefox Firefox Firefox Firefox Firefox Firefox Firefox
> :-)
>
> The other recommendation, of course is _linux_ ! I've been nearly 100%
> on linux here since migrating away from OS/2 over a year ago. I went to
> OS/2 back in 1992 after getting hit with the "Stoned" PC virus -- the olde,
> floppy disk boot sector style -- on Windows 3.1.
> I've never looked back, and never regreted it.
>
> Oh, yes -- almost forgot : Firefox!
>
> gl
> Jonesy

I agree with Jonesy to a great extent. I am the security guy, amongst other things, at our ISP, so here's my short list on how to keep your PC _YOUR_ PC

1 Don't run a Microsoft OS

2 Don't run a Microsoft OS.

3 If you must run Windows, don't use IE or Outlook (or Express), no exceptions. Eevr. The suggestion on permanently blocking IE with the firewall sounds good, I hadn't heard of that one, but I still wouldn't use IE on anything but a machine with no network connection.

4 See rule #3.

5 No really, reread rule #3. I'm very serious here.

6 If you insist on using Windows use Mozilla, Firefox, Lynx, Opera, or any of the other freeware or open source browsers. For mail use Eudora, already mentioned, or Pegasus, my favotite. I have no knowledge of Agent, so I can't comment.

7 Install a decent antivirus suite, such as McAfee, Norton, Dr Solomon, etc.

8 Install an anti spyware, such as SpyBot etc.

9 Or just don't run a Microsoft OS

All in all, the group is very much right on point on this subject.

tom
K0TAR

# 3427. Re: I PASS MY TEST ALSO THE EASY WAY.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-11 01:53:27 UTC
From: Jim - NN7K <nn7kexk7zfg@NOSPAMsbcglobal.net>
Message-ID: <rqsud.57365$QJ3.49028@newssvr21.news.prodigy.com>
Source record: 85424

And, doesn't seem to realize that many use buckmaster/callbook lookups , when in QSO ! Reason know it, get called by my FIRST name, by many I in qso with- Only one source for that! Actually, I go by my middle name! Stands out like sore thumb !! Jim NN7K

Ether Hopper wrote: ----

## 3428. FS 8 pill Linear

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-11 02:16:51 UTC
From: KC8QJP <KC8QJP@yahoo.com>
Message-ID: <31v3qeF3fkpcmU1@individual.net>
Source record: 85425
Cross-posted to: rec.radio.cb,rec.radio.amateur.policy,rec.radio.amateur.antenna,alt.ham-radio.vhf-uhf,rec.radio.amateur.misc

http://tinypic.com/vvqkp

My friend is building these in his basement. Be LOUD and PROUD!

$500 firm.

Contact N8WWM@arrl.net

# 3429. Re: FS 8 pill Linear

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-11 02:21:34 UTC
From: Adair Winter <drummer_adair@mail.com>
Message-ID: <OQsud.38868$bP2.25120@newssvr12.news.prodigy.com>
Source record: 85426
Cross-posted to: rec.radio.cb,rec.radio.amateur.policy,rec.radio.amateur.antenna,alt.ham-radio.vhf-uhf,rec.radio.amateur.misc

"KC8QJP" <KC8QJP@yahoo.com> wrote in message
> http://tinypic.com/vvqkp
>
> My friend is building these in his basement. Be LOUD and PROUD!
>
> $500 firm.
>
> Contact N8WWM@arrl.net
>

LOL! I don't think I want to transmit thur anything that has "pills" in it..
<G>

Adair

# 3430. Re: For Sale: Kenwood TS-870 Station

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-11 02:24:11 UTC
From: laborkei <laborkeiNOSPAM@hotmail.com>
Message-ID: <gRsud.66128$fY.9469@bignews3.bellsouth.net>
Source record: 85427
Cross-posted to: alt.ham-radio.marketplace,rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.swap

After getting overwhelmed with emails, I decided to cop out and go with
eBay.
http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&rd=1&item=5737562395

Happy Bidding !

"laborkei" <laborkeiNOSPAM@hotmail.com> wrote in message
news:ehmud.65841$fY.58348@bignews3.bellsouth.net...
>
>> Just ordered a new Icom PROIII, need to sell the following.
>> will be offering my Kenwood TS870, PS-52, and SP-31 Speaker, MC-90
>> Microphone as a package deal.
>>
>> Have no idea what it is worth yet, but this radio is a "Cream Puff".
>> Not a scratch on it, and covered with a towel when not in use.
>>
>> There are some pictures of the radio on my Website.
>> Anyone interested, please drop me an email, address is on QRZ.com as well
>> as URL.
>>
>> 73's
>>
>>
>
>

# 3431. Re: Browser

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-11 02:44:21 UTC
From: Mike Coslo <mcoslo@adelphia.net>
Message-ID: <wLSdnUpGiLOZwifcRVn-qA@adelphia.com>
Source record: 85428

Dave Bushong wrote:
> aunwin@insightbb.com wrote:
>
>> I am finding that WindowsXP is allowing 20 cookies (plus other stuff )
>> a day
>> [...]
>
>
> HEY!!!!!!!!!!!!!!!!!
>
> REC . RADIO . AMATEUR . ANTENNA

Yo! NetCop! Wassup?

- Mike KB3EIA

# 3432. Re: Browser

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-11 02:47:10 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <10rkntjj9ssic0@corp.supernews.com>
Source record: 85429

Tom Ring wrote:
> Allodoxaphobia wrote:
>
>> Firefox Firefox Firefox Firefox Firefox Firefox Firefox Firefox
>> Firefox :-)
>>
>> The other recommendation, of course is _linux_ ! I've been nearly 100%
>> on linux here since migrating away from OS/2 over a year ago. I went
>> to OS/2 back in 1992 after getting hit with the "Stoned" PC virus --
>> the olde,
>> floppy disk boot sector style -- on Windows 3.1.
>> I've never looked back, and never regreted it.
>>
>> Oh, yes -- almost forgot : Firefox!
>>
>> gl
>> Jonesy
>
>
> I agree with Jonesy to a great extent. I am the security guy, amongst
> other things, at our ISP, so here's my short list on how to keep your PC
> _YOUR_ PC
>
> 1 Don't run a Microsoft OS
>
> 2 Don't run a Microsoft OS.
>
> 3 If you must run Windows, don't use IE or Outlook (or Express), no
> exceptions. Eevr. The suggestion on permanently blocking IE with the
> firewall sounds good, I hadn't heard of that one, but I still wouldn't
> use IE on anything but a machine with no network connection.
>
> 4 See rule #3.
>
> 5 No really, reread rule #3. I'm very serious here.
>
> 6 If you insist on using Windows use Mozilla, Firefox, Lynx, Opera, or
> any of the other freeware or open source browsers. For mail use Eudora,
> already mentioned, or Pegasus, my favotite. I have no knowledge of
> Agent, so I can't comment.
>
> 7 Install a decent antivirus suite, such as McAfee, Norton, Dr Solomon,
> etc.
>

> 8 Install an anti spyware, such as SpyBot etc.
>
> 9 Or just don't run a Microsoft OS
>
>
> All in all, the group is very much right on point on this subject.
>
> tom
> K0TAR
Don't forget that Internet Explorer is hard coded into Windows XP and is
active at all times.

Dave WD9BDZ

## 3433. Leader LPM-885 In-Line SWR/Pwr Meter

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-11 03:00:59 UTC
From: mailfrmpa@aol.com
Message-ID: <20041210220059.21805.00001589@mb-m14.aol.com>
Source record: 85430

I have one of these I'd like to calibrate. Does anyone know a web source for more info?

Martin
K0MB

# 3434. Re: FS 8 pill Linear

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-11 03:11:49 UTC
From: k3bu@aol.comNoUsama
Message-ID: <20041210221149.11907.00001518@mb-m16.aol.com>
Source record: 85431

>
>My friend is building these in his basement. Be LOUD and PROUD!

FCC duly notified

# 3435. Re: Browser

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-11 04:22:19 UTC
From: Mike Coslo <mcoslo@adelphia.net>
Message-ID: <4eudnQvrgbdn6CfcRVn-1A@adelphia.com>
Source record: 85432

aunwin@insightbb.com wrote:

> "Allodoxaphobia" <bit-bucket@config.com> wrote in message
> news:slrncri2om.1ir0.bit-bucket@shell.config.com...
>
>>On Thu, 09 Dec 2004 20:49:10 GMT, aunwin@insightbb.com hath writ:
>>
>>>I am finding that WindowsXP is allowing 20 cookies (plus other stuff ) a
>
> day
> delete
>
> Ok,Ok,Ok e.t.c
> Since Mike gave specific directions as to what to do to get the job done so
> I am leaning towards
> most of what he suggests ( don't under stand the proxy server bit tho).

The proxy server is a bit of hardware or software that sits between
your programs and the rest of the net. If we take the proxy server I use
as an example, (Proxomitron) it will block or allow various things as I
set it. Examples are that it will block pop-ups, nosey Javascripts, and
banners. It also has a list function that will block anything from
certain ip addresses or servers. It can also fake cookies so that some
sites that won't work without cookies will work. Some still won't work,
but noting is perfect.

Its biggest drawback is that it adds some time to the page loading. A
couple seconds or so, except for some pages such as Yahoo, which slow
down a good bit (for a good reason)

> Thanks to everybody tho for their inputs including those you gave a better
> choice to the one that I am leaning towards. Need to get back to antennas or
> swr before the net policeman scolds me for using this net for unofficial
> postings

PAH! We use our browsers to dl our antenna software and post here in
the group. And this whole thread is helping a member in good standing.
It's near enough to on topic, IMO.

IOW, if someone doesn't like what I'm posting, they are free (and most
strenuously encouraged) to filter me. If they need instructions I will
be most happy to give them some!

I can't contribute a whole lot in this group in the antenna arena, so I
like to help where I can.

- Mike KB3EIA -

# 3436. Re: Browser

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-11 04:38:55 UTC
From: Mike Coslo <mcoslo@adelphia.net>
Message-ID: <0_KdnRoqOodD5CfcRVn-rg@adelphia.com>
Source record: 85433

David G. Nagel wrote:

> Don't forget that Internet Explorer is hard coded into Windows XP and is
> active at all times.

You bet! That is why it is important to deny it access to the web with
your firewall.

It doesn't hurt to cut out Windows media player while you are at it.

- Mike KB3EIA -

# 3437. Loop Antenna as Triangle?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-11 05:31:20 UTC
From: Ed <Huckleberry_REMOVE_@bigvalley.net>
Message-ID: <Xns95BBDB1B9BEEEspectrumhogstarbandn@207.106.93.175>
Source record: 85434

I would like to put up a 160 meter loop, fed with 450ohm ladderline.
Although I have enought room, the existing trees would only provide three
supports, pretty much in the shaped of a equalaterral triangle. How well
would a three sided loop work? Should I feed it in the center of one side?

Ed

## 3438. Re: FS 8 pill Linear

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-11 06:27:28 UTC
From: CW <cmagers@earthlink.net>
Message-ID: <Oe6dnRMR5pWSDifcRVn-pA@comcast.com>
Source record: 85435

They apparently don't care. Do a Google search on "Dave Made". He is well known in CB circles. He sells his amps from his website.

"Yuri Blanarovich" <k3bu@aol.comNoUsama> wrote in message news:20041210221149.11907.00001518@mb-m16.aol.com...
> >
> >My friend is building these in his basement. Be LOUD and PROUD!
>
> FCC duly notified

## 3439. Re: Simple, cheap antenna for portable use.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-11 06:31:19 UTC
From: CW <cmagers@earthlink.net>
Message-ID: <CpWdnWG889pqDifcRVn-ug@comcast.com>
Source record: 85436

Take a good look at the end of one of those whips. Very thin. Won't hold
much of an extension.
"Graeme" <g_frith@bigpond.com> wrote in message
news:41ba2ee0$0$25765$5a62ac22@per-qv1-newsreader-01.iinet.net.au...
> Now that's inovative thinking! Thanks Hal. I'll give your suggestion a
> closer look.
> But I'll swap the warm coat for bottle of sunscreen and a pair of
> sunglasses..
> It's summer here in Sydney Australia!!
> Cheers..
>
>

# 3440. Re: FS 8 pill Linear

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-11 07:35:03 UTC
From: WhyCanNotWeAllBeGeorge <iWillBeGeorgeIfYouReallyWantMeTo>, Ok?@georgieporggiee.com
Message-ID: <41baa326$0$6857$bb8e7a08@news.usenetcompany.com>
Source record: 85437
Cross-posted to: rec.radio.cb,rec.radio.amateur.policy,rec.radio.amateur.antenna,alt.ham-radio.vhf-uhf,rec.radio.amateur.misc

Just another keyclown faggot intimidated by a beautiful high quality woman!
"Adair Winter" <drummer_adair@mail.com> wrote in message
news:OQsud.38868$bP2.25120@newssvr12.news.prodigy.com...
> "KC8QJP" <KC8QJP@yahoo.com> wrote in message
>> http://tinypic.com/vvqkp
>>
>> My friend is building these in his basement. Be LOUD and PROUD!
>>
>> $500 firm.
>>
>> Contact N8WWM@arrl.net
>>
>
> LOL! I don't think I want to transmit thur anything that has "pills" in
> it.. <G>
>
> Adair
>

# 3441. Re: TV antenna & cabling question ...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-11 07:38:01 UTC
From: Dave VanHorn <dvanhorn@dvanhorn.org>
Message-ID: <F9idnRIF-IoMOSfcRVn-qQ@comcast.com>
Source record: 85438

>>> I keep the RG-6 coax runs in separate conduit from the UTP runs.
>>
>> Hmm.. Why? Shouldn't be any effect either way.
>>
> Reduces problems (you never know who will follow you) with pulling future
> RG-6 cables. Also the bend radius tolerances are different. IF UTP
> cables are within same pathway the pulling crew has to be more gentle and
> careful.

I see.. I never had to work with multiple different types in one pull.

> Now if you have ever worked a large cabling installation ... you know that
> words "gentle" and "careful" are a foreign language terms to many cabling
> pulling crews.

VBG! Yes, pull till it parts, and then back off a little.

There was this time in the Ala-Moana building, when I was installing coax for video from the first to the 25th floor. We decided to to it from the top down, so somewhere along the way, threading the cables down the core, the end cap came off. A couple floors later, when we went down to take it the next level, we found the raw end sticking inside the cage that surrounds the 440VAC busbars. The other end of the cable was already connected, so that would have been rather exciting on many levels!

> Although when I have traveled with these crews .. they referred to the
> airline baggage handlers (pre-9/11) as gorillas (former TV ad of a
> logistics company).

I saw a UAL baggage handler slam a suitcase down on the belt so hard once, that his feet left the ground. I rarely put anything more damagable than clothes in my bags anymore.

# 3442. Re: I PASS MY TEST ALSO THE EASY WAY.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-11 07:54:59 UTC
From: wildboy74@webtv.net
Message-ID: <15327-41BAA7D3-425@storefull-3272.bay.webtv.net>
Source record: 85439

the dx was great today on the hf bands talk to a lot of people.found me
a extra class call love the comments welcome to the club
thanks for the support hams are loving people cq cq contest cant wait
god bless yall

# 3443. Re: I PASS MY TEST ALSO THE EASY WAY.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-11 09:20:42 UTC
From: jcooper874@webtv.net
Message-ID: <15436-41BABBEA-46@storefull-3278.bay.webtv.net>
Source record: 85440

wildboy is crazy talking like that .gg better not do that.what do yall think of him.

# 3444. Re: FS 8 pill Linear

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-11 09:57:04 UTC
From: N7ZZT - Eric Oyen <n7zzt@127.0.0.1>
Message-ID: <Qvzud.8173$NQ6.222@fed1read03>
Source record: 85441

CW wrote:

> They apparently don't care. Do a Google search on "Dave Made". He is well
> known in CB circles. He sells his amps from his website.
>
they care, but with the recent budget concerns,they have had other
priorities. Personally, if I were going to build an amp for HF, I'd make
damned sure it had input and output matching and filters (which these units
apparently don't). said filters often do wonders at increasing efficiency
and minimizing interference. still, on 11 meters, the rule is: 4 watts rms
AM and 12 watts PEP sideband, period.

besides, a good antenna can more than make up for a lousy signal (but it
helps to have a clean transmitter and good line).
--
DE N7ZZT
Eric Oyen
Phoenix, Arizona
e-mail: n7zzt(at)hotmail(dot)com
the difference between intelligence and stupidity is that intelligence
has its limits.

# 3445. Re: Loop Antenna as Triangle?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-11 10:02:39 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cpegjv$p91$1@titan.btinternet.com>
Source record: 85442

> I would like to put up a 160 meter loop, fed with 450ohm ladderline.
> Although I have enought room, the existing trees would only provide three
> supports, pretty much in the shaped of a equalaterral triangle. How well
> would a three sided loop work? Should I feed it in the center of one
side?
>
> Ed
---

An approximately equilateral trianglular loop, of the same perimeter, will
not work greatly different from an approximately square loop.

The tuner settings will change a little. The radiation pattern will not
noticeably change unless actually measured. Radiating efficiency will be
slightly but not very noticeably less. Connect the feedline wherever it is
convenient. The radiation pattern will change from being crudely
omni-directional to another crudely omni-directional shape.

Reg.

# 3446. Re: FS 8 pill Linear

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-11 10:07:36 UTC
From: WA3MOJ <WA3MOJ@home.com>
Message-ID: <cpegt801k76@drn.newsguy.com>
Source record: 85443
Cross-posted to: rec.radio.cb,rec.radio.amateur.policy,rec.radio.amateur.antenna,alt.ham-radio.vhf-uhf,rec.radio.amateur.misc

In article <OQsud.38868$bP2.25120@newssvr12.news.prodigy.com>, Adair Winter
says...
>
>"KC8QJP" <KC8QJP@yahoo.com> wrote in message
>> http://tinypic.com/vvqkp
>>
>> My friend is building these in his basement. Be LOUD and PROUD!
>>
>> $500 firm.
>>
>> Contact N8WWM@arrl.net
>>
>
>LOL! I don't think I want to transmit thur anything that has "pills" in it..
><G>
>
>Adair
>
>
You fucking pussy! My 32 pill will make you sound like a mud duck!

--
Young Men are delicious,
Healthy, virile and strong,
With smooth skin, a firm fleshy arse,
And hair growing where it belongs.

# 3447. Re: FS 8 pill Linear

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-11 10:17:29 UTC
From: WA3MOJ <WA3MOJ@home.com>
Message-ID: <cpehfp01lir@drn.newsguy.com>
Source record: 85447
Cross-posted to: rec.radio.cb,rec.radio.amateur.policy,rec.radio.amateur.antenna,alt.ham-radio.vhf-uhf,rec.radio.amateur.misc

In article <31v3qeF3fkpcmU1@individual.net>, KC8QJP says...
>
>http://tinypic.com/vvqkp
>
>My friend is building these in his basement. Be LOUD and PROUD!
>
>$500 firm.
>
>Contact N8WWM@arrl.net
>
>
My 32 pill will walk the dog on ya mud duck!

--
Young Men are delicious,
Healthy, virile and strong,
With smooth skin, a firm fleshy arse,
And hair growing where it belongs.

# 3448. Re: FS 8 pill Linear

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-11 11:39:03 UTC
From: KC8QJP <KC8QJP@yahoo.com>
Message-ID: <3204olF3fqin0U1@individual.net>
Source record: 85446
Cross-posted to: rec.radio.cb,rec.radio.amateur.policy,rec.radio.amateur.antenna,alt.ham-radio.vhf-uhf,rec.radio.amateur.misc

"WA3MOJ" <WA3MOJ@home.com > wrote in message
news:cpehfp01lir@drn.newsguy.com...
> In article <31v3qeF3fkpcmU1@individual.net>, KC8QJP says...
>>
>>http://tinypic.com/vvqkp
>>
>>My friend is building these in his basement. Be LOUD and PROUD!
>>
>>$500 firm.
>>
>>Contact N8WWM@arrl.net
>>
>>
> My 32 pill will walk the dog on ya mud duck!
>
>
My Doug can jam repeaters with 5 watts! Does Nancy need any bootleg tax
accounting done? I can get her a BIG return...(ignore my felony conviction)
>
>
> --
> Young Men are delicious,
> Healthy, virile and strong,
> With smooth skin, a firm fleshy arse,
> And hair growing where it belongs.

# 3449. Re: hey, look!N8WWM Doug is microphallic

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-11 12:01:51 UTC
From: KC8QJP <KC8QJP@yahoo.com>
Message-ID: <32063cF3es751U1@individual.net>
Source record: 85444
Cross-posted to: rec.radio.cb,alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.policy

That's OK, I still have W8TOL and N8ORF pulling a train on me. They stuff
all my holes and make me air-tight!

We went through 3 cans of Crisco the last time Doug got locked up!
wooooooooohooooooooooo!!!
>
<zerobeatradio@yahoo.com> wrote in message
news:1102766065.949060.165250@c13g2000cwb.googlegroups.com...
> LOL, Doug is a needle dick bug banger according to his common law wife
> K8QJP, crisco kathy lee! Too funny!
>
>
> KC8QJP wrote:
>> this guy is hung compared to my dougay
>> http://www.atlasperovic.com/contents/3.htm
>>
>> "KC8QJP" <KC8QJP@crisco.net> wrote in message
>> news:2s5jriF1goibaU1@uni-berlin.de...
>> >
>> > "U Know Who" <AKC-AnonymousKeyboardCowardsRus@not-here.com> wrote
> in
>> > message news:Urg7d.5328$VB3.460@fe2.texas.rr.com...
>> >>
>> >> "Psychiatrist to keyclowns" <N8WWMkeyklonzrnutjobs@yahoo.com>
> wrote in
>> >> message news:586e7bbf.0409301653.327a7b03@posting.google.com...
>> >>> http://www.geocities.com/mopeadopezbrain/index.html?1096389112170
>> >>
>> >> Then again, could be Doug's penis. Let's ask Kathy Lee.
>> >>
>> > too big.....his mental illness meds have really made him
>> > microphallic.....
>> >
>
>

# 3450. Re: Simple, cheap antenna for portable use.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-11 12:13:29 UTC
From: Bob Miller <rmiller47@satx.rr.com>
Message-ID: <5solr0d1eo5d210nhco7ioq9f7trc78h32@4ax.com>
Source record: 85445

On Sat, 11 Dec 2004 06:50:39 +1100, "Graeme" <g_frith@bigpond.com>
wrote:

>Hi All..
> I'm wishing to operate portable from a mountain top location
>which has excellent 360 degree unobstructed views, and would be ideal for
>the odd weekend of amateur radio operation when I get the chance. Problem
>is, there are no trees at that location to use as mounting points for wire
>antennas. I'm considering building a vertical antenna using aluminium tubing
>that I could telescope together to a height of approx 16 to 17 feet. This
>would allow me to tune the antenna to any band between 14MHz and 29MHz by
>adjusting the length, and use my cars body as a ground plane. Problem is, I
>have no idea how to afix a 16 foot vertical antenna to the top of my little
>four cylinder car!
>Can anyone suggest a simple way to do this with a minimum cash outlay?
>I'd also be interested to hear of other suitable antenna ideas.
>I'm very keen to get back on the bands after an absence of several years,
>and operation from home is out of the question.
>
>73 de Graeme.....
>

Don't know if you guys in Australia get QST magazine on a regular
basis, but the December issue has plans for a portable vertical that
does 20 through 6 meters, the "FARApole".

See http://www2.arrl.org/qst/

Bob
k5qwg

# 3451. Re: Browser

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-11 12:52:58 UTC
From: K7MEM <k7mem@myrealbox.com>
Message-ID: <cpeqja$fm4@cui1.lmms.lmco.com>
Source record: 85449

David G. Nagel wrote:
> Tom Ring wrote:
>
>> Allodoxaphobia wrote:
>>
>>> Firefox Firefox Firefox Firefox Firefox Firefox Firefox Firefox
>>> Firefox :-)
>>>
>>> The other recommendation, of course is _linux_ ! I've been nearly 100%
>>> on linux here since migrating away from OS/2 over a year ago. I went
>>> to OS/2 back in 1992 after getting hit with the "Stoned" PC virus --
>>> the olde,
>>> floppy disk boot sector style -- on Windows 3.1.
>>> I've never looked back, and never regreted it.
>>>
>>> Oh, yes -- almost forgot : Firefox!
>>>
>>> gl
>>> Jonesy
>>
>>
>>
>> I agree with Jonesy to a great extent. I am the security guy, amongst
>> other things, at our ISP, so here's my short list on how to keep your
>> PC _YOUR_ PC
>>
>> 1 Don't run a Microsoft OS
>>
>> 2 Don't run a Microsoft OS.
>>
>> 3 If you must run Windows, don't use IE or Outlook (or Express), no
>> exceptions. Eevr. The suggestion on permanently blocking IE with the
>> firewall sounds good, I hadn't heard of that one, but I still wouldn't
>> use IE on anything but a machine with no network connection.
>>
>> 4 See rule #3.
>>
>> 5 No really, reread rule #3. I'm very serious here.
>>
>> 6 If you insist on using Windows use Mozilla, Firefox, Lynx, Opera, or
>> any of the other freeware or open source browsers. For mail use
>> Eudora, already mentioned, or Pegasus, my favotite. I have no
>> knowledge of Agent, so I can't comment.
>>

>> 7 Install a decent antivirus suite, such as McAfee, Norton, Dr
>> Solomon, etc.
>>
>> 8 Install an anti spyware, such as SpyBot etc.
>>
>> 9 Or just don't run a Microsoft OS
>>
>>
>> All in all, the group is very much right on point on this subject.
>>
>> tom
>> K0TAR
>
> Don't forget that Internet Explorer is hard coded into Windows XP and is
> active at all times.
>
> Dave WD9BDZ

Yes, IE is coded in, but that's because it is integral with the file browsers. I'm running XP Pro.

90% of the time I use Netscape 7.2, which is a step up from 7.1. It has a nice junk mail filter and popup blocker built in. With the browser you can have multiple web sites opened up with only one instance of the browser. The mail and newsgroup section can manage multiple mail servers and news servers. Some of the buttons seem to have gone away, but I found them again as configuration items.

But, where IE is really useful is running it in the FTP mode. I can connect to my web site with a single command and use click and drag to move anything I want to. An incredibly handy little thing. This works with anonymous ftp sites as well. I haven't found Netscape to be interactive with the file browsers.

My mail servers are all spam and virus filtered, so not much gets past them. Netscape then takes care of the rest.

I also use Netscape 7.1 on Unix. It works great on my Ultra-450 running Solaris 8. I have IE on there, but the newest version supported is only 5.1, I think. I run 6.2 here. It works, but not real well. It's a pretty hooky setup.

McAfee runs on both Unix systems and PCs and works very well. You do have to keep up with it. I get a dat file update about once a week. Daily some times, when the hackers are real active. My Unix install scans 20 servers and about 10 TBytes of data in a weeks time. It is not common to find a virus lurking around but when there is one, it finds it. Of course, the only ones it finds are Linux viruses. For this, and many other reasons, I wouldn't recommend Linux to anyone.

But, in the end, I don't have many complaints about XP and IE. I wish IE had a popup blocker like Netscape. The popups do get through, but

I have never had a problem with throwing them away as soon as they pop up. I do highly recommend Netscape. I have found that it renders everything very closely to IE and FireFox. Some minor differences but nothing great.

--
Martin E. Meserve - K7MEM
http://www.k7mem.com

# 3452. Re: FS 8 pill Linear

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-11 13:43:06 UTC
From: Paw-Paw <pawpaw@granpa.com>
Message-ID: <nMCud.63484$Dm2.54231@bignews1.bellsouth.net>
Source record: 85450
Cross-posted to: rec.radio.cb,rec.radio.amateur.policy,rec.radio.amateur.antenna,alt.ham-radio.vhf-uhf,rec.radio.amateur.misc

```
"Adair Winter" <drummer_adair@mail.com> wrote in message
news:OQsud.38868$bP2.25120@newssvr12.news.prodigy.com...
> "KC8QJP" <KC8QJP@yahoo.com> wrote in message
>> http://tinypic.com/vvqkp
>>
>> My friend is building these in his basement. Be LOUD and PROUD!
>>
>> $500 firm.
>>
>> Contact N8WWM@arrl.net
>>
>
> LOL! I don't think I want to transmit thur anything that has "pills" in
> it.. <G>
>
> Adair
Not unless they're birth control :-^)
```

# 3453. Plotting Package Available for SmartSmith

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-11 14:34:11 UTC
From: w9dmk@crosslink.net
Message-ID: <41bb010c.1431197@news.crosslink.net>
Source record: 85448

The Plotting Package, "NetworkProcessor.zip" is now available - just
point your browser to:

http://www.qsl.net/w9dmk/SWDownloads/NetworkProcessor.zip

This is a small download (45 kB) that you unzip into your present
SmartSmith 1.6.2 application folder.

NetworkProcessor uses a file generated by SmartSmith to capture the
design of you network. It then generates the data to display a plot
versus frequency of any one of the following six variables:
Voltage Magnitude
Voltage Phase Angle
Current Magnitude
Current Phase Angle
Impedance Magnitude
Impedance Phase Angle

Comprehensive Help files (4) included with the executable program.

Bob, W9DMK, Dahlgren, VA
http://www.qsl.net/w9dmk

# 3454. Re: Browser

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-11 14:47:24 UTC
From: TW <kilocycles**@**yahoo.com>
Message-ID: <dj1mr09u143svj4pcuar3hm7bu77urdca9@4ax.com>
Source record: 85451

I had to switch from Firefox 1.0 to Mozilla due to a problem in saving
web page content to my local hard drive v-e-r-y s-l-o-w, as in 100%
CPU utilization for 1 to 5 minutes, and sometime hanging (I'm running
XP Pro on this machine, Mandrake 9.2 on the laptop and servers).
Thunderbird has no trouble at all, but when I made the switch, the
pop-ups and banners came in a deluge!

Then I installed Proxomitron with no special settings (I'm still
figuring out its capabilities) and at least 90% of the junk went away.
Three cheers for freeware!

Ted KX4OM

On Fri, 10 Dec 2004 19:30:58 -0600, Tom Ring <news0000@taring.org>
wrote:

>Allodoxaphobia wrote:
>> Firefox Firefox Firefox Firefox Firefox Firefox Firefox Firefox Firefox
>> :-)
>>
>> The other recommendation, of course is _linux_ ! I've been nearly 100%
>> on linux here since migrating away from OS/2 over a year ago. I went to
>> OS/2 back in 1992 after getting hit with the "Stoned" PC virus -- the olde,
>> floppy disk boot sector style -- on Windows 3.1.
>> I've never looked back, and never regreted it.
>>
>> Oh, yes -- almost forgot : Firefox!
>>
>> gl
>> Jonesy
>
>I agree with Jonesy to a great extent. I am the security guy, amongst
>other things, at our ISP, so here's my short list on how to keep your PC
> _YOUR_ PC
>
>1 Don't run a Microsoft OS
>
>2 Don't run a Microsoft OS.
>
>3 If you must run Windows, don't use IE or Outlook (or Express), no
>exceptions. Eevr. The suggestion on permanently blocking IE with the
>firewall sounds good, I hadn't heard of that one, but I still wouldn't
>use IE on anything but a machine with no network connection.
>
>4 See rule #3.

>
>5 No really, reread rule #3. I'm very serious here.
>
>6 If you insist on using Windows use Mozilla, Firefox, Lynx, Opera, or
>any of the other freeware or open source browsers. For mail use Eudora,
>already mentioned, or Pegasus, my favotite. I have no knowledge of
>Agent, so I can't comment.
>
>7 Install a decent antivirus suite, such as McAfee, Norton, Dr Solomon, etc.
>
>8 Install an anti spyware, such as SpyBot etc.
>
>9 Or just don't run a Microsoft OS
>
>
>All in all, the group is very much right on point on this subject.
>
>tom
>K0TAR

# 3455. Re: Browser

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-11 16:00:48 UTC
From: Wes Stewart <n7ws_@_yahoo.com>
Message-ID: <7m5mr01ja7msvdfi86d7rfq3c41l2qrltt@4ax.com>
Source record: 85452

On Thu, 9 Dec 2004 23:50:02 -0500, "Hal Rosser"
<hmrosser@bellsouth.net> wrote:

|> I lost confidence in netscape when aol took it over.
|> Try mozilla firefox (it is free)
|> or
|> Avant browser (also free)
|> --- also download the free firewall (zoneAlarm) from zone labs
|> and-- free antivirus software (AVG)
|> and you can replace microsoft office with OpenOffice .org
|> and if you can find some scrap wire, we can talk about a free antenna
|> :-)
|>
|
|The Avant browser is really a good one - maybe even better than Mozilla
|Firefox
|- Mosaic, though may not suite your needs.
|but by all means - anything but IE

As I said elsewhere, I use Firebird, predecessor to Firefox.

Unfortunately, some web sites almost demand IE. The attitude is that since 99% of the users are using IE, that's the thing to code for. (I know this because I've had this discussion with my son, who is the IT guru for a nationwide corporation)

I have IRA's at both Schwab and Vanguard. Some of their "features" simply will not work in anything but IE. Threats to move my money to the other guy if they don't fix this fall on deaf ears.

Same with my credit union. For example the login page "moves" three times while loading in Firefox. If I start typing my login info too soon, the boxes move and login fails. Tech support couldn't care less.

But these are the same guys who, although 80% of the users have a dial-up connection, assume that everyone has a personal T1 line to their server and can download their bloated pages instantly.

# 3456. Re: Feeding 30 Mtrs into a 40 Mtr Dipole - Losses ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-11 16:14:26 UTC
From: Crazy George <muNnscOh@attSglPobaAl.nMet>
Message-ID: <41bb1fbf_3@news1.prserv.net>
Source record: 85453

You know, Gary, there is another option which no one mentioned. Add a 30M dipole under the 40M job and use the same
feedline. You will likely have to adjust the length of the 40M wire slightly to return the VSWR to the present value,
but you will then have a good antenna for both bands. See any number of references about actual mechanical
construction.

--
Crazy George
Remove N O and S P A M imbedded in return address
"Gary" <gdn50@@@usol.com> wrote in message
news:k45kr0tpa51j3uoieltaiqvqueg5gpcukg@4ax.com...
> On 10 Dec 2004 06:30:32 -0800, "JimK2TL@gmail.com" <JimK2TL@gmail.com>
> wrote:
>
> >The loss on coax with that kind of a mismatch is around 90%. You are
> >better off with open wire feeds, especially since you have a tuner
> >available..even if it is MFJ ( Hi ).
> <grin>
> >An open wire fed 40 meter dipole will produce a fine multiband
> >antenna..take that to the bank!
> >Jim
>
> Thanks to all that replied. I knew it was probably somewhat lossy but
> I didn't know it was as bad as has been pointed out. I'll have to
> think about feeding it with open wire or twinlead when the weather is
> more suitable here in Michigan.
>
> 73 and Thanks again.
>
> Gary K8IQ

# 3457. Re: TV antenna & cabling question ...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-11 16:18:42 UTC
From: raiar@bbs.galilei.com.nospam
Message-ID: <41bb1a8e.1190391875@news.galilei.com>
Source record: 85454

Hi gb

St. Louis County, MO (and several municipalities within same) is who charges additional permit fees for each pull box affixed to the studs or otherwise properly mounted.

The wiring codes are vastly different for residential, commercial, schools, hospitals, etc. I know of NO allowance for Romex in any structure other than residential and even in residential usage, conduit is still required in several areas.

If I recall correctly, regarding Romex A staple is required within 6 inches of a plastic pull box or 14 inches of a clamped metal pull box. Some inspectors (whether code or not) will require a staple on ALL wiring within 6 inches of the pull box, regardless of what kind of wiring it is. Of course, you know how some inspectors are royal PITA's.

It's been over 30 years since I worked my way up the ranks and roughly 10 years since I worked in the field. And even then I only worked in residential. Everything since then was just predication work.

TTUL
Gary

# 3458. Re: Loop Antenna as Triangle?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-11 16:27:32 UTC
From: raiar@bbs.galilei.com.nospam
Message-ID: <41bb1e1a.1191300031@news.galilei.com>
Source record: 85455

Hi Ed

The IDEAL loop skywire is a perfect circle!

Any deviation from that reduces it's affectiveness, but not very appreciatively that you would notice enough for it to warrant worrying about it.

I've had loop skywires that resembled the letters M, R and even close to the letter V all closed loops of course, and I saw no difference in their performance.

TTUL
Gary

## 3459. AM radio reception inside passenger planes?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-11 17:51:08 UTC
From: Some Guy <Some@Guy.com>
Message-ID: <41BB338C.2023CB07@Guy.com>
Source record: 85456
Cross-posted to: rec.travel.air,rec.radio.amateur.antenna,sci.electronics.equipment

I have no trouble receiving FM radio broadcasts on a small am/fm radio
I sometimes listen to while onboard commercial jet airliners (flying
at cruise altitude), but I never seem to be able to pick up AM radio
stations. It's just static across the AM band.

Any explanation for this?

## 3460. Re: AM radio reception inside passenger planes?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-11 19:05:11 UTC
From: Geoff Glave <nospam@nospam.com>
Message-ID: <HxHud.9448$eb3.8331@clgrps13>
Source record: 85457
Cross-posted to: rec.travel.air,rec.radio.amateur.antenna,sci.electronics.equipment

> Any explanation for this?

FM radio generally operates at longer range than AM radio, however it's
limited to line-of-sight. However, when you're 40,000 feet up you can "see"
a lot of transmitters hence the FM signals.

Cheers,
Geoff Glave
Vancouver, Canada

# 3461. Re: Browser

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-11 19:23:03 UTC
From: "aunwin@insightbb.com"
Message-ID: <rOHud.178556$V41.112462@attbi_s52>
Source record: 85458

There may be some readers who are not sure what the postings are all about
and why the "Fuss"
.I just linked up to the "BBC "home page which shows their policy
towards"privacy and cookies"
For those who are illiterate with respect to computors and just accept what
is
supplied with the computor as purchased, reviewing the privacy policy
provided
allows the viewer simplified steps to take to protect oneself based on the
browser IN USE.
It does not provide the expertise offered by this knoweledgable group but it
does offer a
preliminary stage of protection by providing step by step computor
instructions to get started
for the illiterate such as I , plus a bit more indepth discussion of what
unknown attachments and cookies
actual do when invading your privacy.
On a side note with respect to some computors slowing down. Are the Windows
based computor programs
with respect to antenna modelling also subject to overload or slowing down
problems or are they some how
immune to the described problems?
Fortunately my program is DOS based so I still enjoy the benefits of the 3
Gig time saver of the processor.
But then..... ignorance could be seen as bliss.
Art

"aunwin@insightbb.com" <aunwin@insightbb.com@insightbb.com> wrote in message
news:aT2ud.231357$R05.32013@attbi_s53...
> I am finding that WindowsXP is allowing 20 cookies (plus other stuff ) a
day
> to attach to my computor which requires the use of another program to be
> activated
> every day to quarentine them. Thinking of going back to the Netscape
browser
> so as to
> keep the computor cleen. Also interested in how much it would cost for
> firewalls to bring
> WindowsXP back to the protective level of Netscape 7.1.
> Comments
> (Yes I know it is not antenna related, unless you
> need a computor to read antenna postings or use WindowsXP for antenna
> software!)
> Art

>
>

# 3462. Re: AM radio reception inside passenger planes?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-11 19:34:20 UTC
From: Ian Jackson <IanJacksonRemoveThisBit@g3ohx.demon.co.uk>
Message-ID: <QQZkixB8u0uBFwNV@g3ohx.demon.co.uk>
Source record: 85459
Cross-posted to: rec.travel.air,rec.radio.amateur.antenna,sci.electronics.equipment

In message <HxHud.9448$eb3.8331@clgrps13>, Geoff Glave
<nospam@nospam.com> writes
>> Any explanation for this?
>
>FM radio generally operates at longer range than AM radio, however it's
>limited to line-of-sight. However, when you're 40,000 feet up you can "see"
>a lot of transmitters hence the FM signals.
>
>Cheers,
>Geoff Glave
>Vancouver, Canada
>
>

The window holes are much too small to let the much longer wavelengths
of the 'AM' signals through. The body of the plane is a very effective
screen. The 'FM' signals can squeeze in, but it helps if you have a
window seat. I've also listened to SW in the middle of the Atlantic.

Flying from the UK to Florida, on the other side of the Atlantic the
first FM stations you hear are usually speaking French (from Quebec)
It's quite alarming!
Ian.
--

# 3463. Re: AM radio reception inside passenger planes?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-11 19:35:08 UTC
From: nick smith <NickS@ntlworld.com>
Message-ID: <MZHud.680$Uh.421@newsfe1-win.ntli.net>
Source record: 85460
Cross-posted to: rec.travel.air,rec.radio.amateur.antenna,sci.electronics.equipment

"Geoff Glave" <nospam@nospam.com> wrote in message
news:HxHud.9448$eb3.8331@clgrps13...
> > Any explanation for this?
>
> FM radio generally operates at longer range than AM radio, however it's
> limited to line-of-sight. However, when you're 40,000 feet up you can "see"
> a lot of transmitters hence the FM signals.
>
> Cheers,
> Geoff Glave
> Vancouver, Canada
>
>

I reckon you just answered the wrong question !!

The reason A.M. radio can not be received in a plane is that it is a Faraday
cage to the (lower frequency) A.M
frequencies, whereas the VHF frequencies can just about get through the
windows.

There may be a bit of frequency / range issue as well but top band and 80 mtrs
gets across the pond so
I don't think this is the issue here...

Nick

## 3464. Re: AM radio reception inside passenger planes?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-11 19:57:09 UTC
From: Ether Hopper <EH@skip.net>
Message-ID: <pilud.4676$ve.1869@fed1read06>
Source record: 85461
Cross-posted to: rec.travel.air,rec.radio.amateur.antenna,sci.electronics.equipment

No one has mentioned that in many cases you need the pilot's permission to operate a radio or other electronic device for that matter on a commercial airliner. That includes AM/FM radios.

Radio emissions may screw up the plane's avionics.

See URL:
http://www.fordyce.org/scanning/scanning_info/scan_fly.html

It sez:
"The FAA does not allow inflight use of walkie-talkies, radio controlled toys, AM/FM radios, portable telephones, or portable television sets, all of which may affect aircraft radio and navigation equipment"

Also cruise ships may deny use of two way (FRS) or ham radios -- always check with the communications officer.

For Hams always check with the person in charge on any commercial transportation, busses, taxi's, ships planes etc.

Yeah yeah I know you did it without getting permission, but read the URL as to what airlines have published.

And I know from personal experience that some cruise lines do not allow FRS or ham radios transmissions.

--
RF Gotta Go SomeWhere

"nick smith" <NickS@ntlworld.com> wrote in message
news:MZHud.680$Uh.421@newsfe1-win.ntli.net...
>
> "Geoff Glave" <nospam@nospam.com> wrote in message
> news:HxHud.9448$eb3.8331@clgrps13...
>> > Any explanation for this?
>>
>> FM radio generally operates at longer range than AM radio, however it's
>> limited to line-of-sight. However, when you're 40,000 feet up you can
>> "see"
>> a lot of transmitters hence the FM signals.
>>
>> Cheers,
>> Geoff Glave
>> Vancouver, Canada
>>
>>

>
> I reckon you just answered the wrong question !!
>
> The reason A.M. radio can not be received in a plane is that it is a
> Faraday
> cage to the (lower frequency) A.M
> frequencies, whereas the VHF frequencies can just about get through the
> windows.
>
> There may be a bit of frequency / range issue as well but top band and 80
> mtrs
> gets across the pond so
> I don't think this is the issue here...
>
> Nick
>
>

# 3465. Re: AM radio reception inside passenger planes?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-11 20:09:32 UTC
From: Ian Jackson <IanJacksonRemoveThisBit@g3ohx.demon.co.uk>
Message-ID: <qQ5qidE8P1uBFw7f@g3ohx.demon.co.uk>
Source record: 85462
Cross-posted to: rec.travel.air,rec.radio.amateur.antenna,sci.electronics.equipment

In message <piIud.4676$ve.1869@fed1read06>, Ether Hopper <EH@skip.net>
writes
>No one has mentioned that in many cases you need the pilot's permission to
>operate a radio or other electronic device for that matter on a commercial
>airliner. That includes AM/FM radios.
>
>Radio emissions may screw up the plane's avionics.

Virgin included the use of radio receivers in their 'permitted list'
about 3 years ago. However, I do wonder about the use of the FM
broadcast band because the LO (tuned freq + 10.7MHz) can land up right
on top of something important in the ATC band.
Ian.
--

# 3466. Re: Browser

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-11 20:27:29 UTC
From: Dave Bushong <db@9y.com>
Message-ID: <2eudnc83d4qvxSbcRVn-rg@adelphia.com>
Source record: 85463

Mike Coslo wrote:
>
> Dave Bushong wrote:
>
>> aunwin@insightbb.com wrote:
>>
>>> I am finding that WindowsXP is allowing 20 cookies (plus other stuff
>>> ) a day
>>> [...]
>>
>>
>>
>> HEY!!!!!!!!!!!!!!!!!
>>
>> REC . RADIO . AMATEUR . ANTENNA
>
>
> Yo! NetCop! Wassup?
>
> - Mike KB3EIA
>

Hi Mike,

Thanks for your followup posting, and here is Wassup.

I'm not a "NetCop", but instead, an "Elmer". I teach new hams not to stick a fork into the light socket, not to transmit on a dual-band radio on band "B" when you are listening on band "A", and other embarrassing things. I also teach new newsgroup posters that posting an article, and then nearly 30 followups, to an antenna newsgroup, is wrong. It is wrong because people who subscribe to the rec.radio.amateur.antenna newsgroup have a reasonable expectation that postings here will have something to do with ham radio antennas, or at least ham radio, or maybe radio, or at least antennas, or maybe even CB microphones. Not cookies.

With 40,000+ newsgroups out there, there is just no reason to post a generic "help-me" message about Windows XP cookies, into a newsgroup about ham radio antennas. I've been wrong before, but this time, I'm not.

73,
Dave
KZ1O

# 3467. Re: TV antenna & cabling question ...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-11 20:36:42 UTC
From: Dave VanHorn <dvanhorn@dvanhorn.org>
Message-ID: <S5mdnQMxLLTUxybcRVn-3g@comcast.com>
Source record: 85464

> Probably a thing that keeps your local fire marshal awake at night.
>
> A vertical, non-fireproof chimney (and that's what 6" PVC is) running
> vertical between floors will facilitate the growth of a small fire on
> a lower floor into one of catastrophic proportions. Use metal conduit,
> and stuff some coarse steel wool into the ends after you have run
> the cables. You, you family, and the fire marshal will sleep better.

In this case, it's from the "laundry room" (now equipment room) of a small
2BR house, into the attic of same.

> It's a Real Good Thing to even stuff something like steel wool into
> overly large holes used to pass smallish cable through sill plates.

Oh yes, among other things, the heat bill would eat me alive otherwise.

>> There was a time that I put 600 phone lines into a residential
>> basement in wisconsin.
>
> I think I know the name of that spammer. :-)

Not my site! That site became www.cedar.net
I got the lines put in for free, including running them under a freeway, and
adding a fiber cabinet near the rail line. :)
Our first web server was a SCO box, where I hacked the help system to
respond on port 80.
That was when web server sw was $10k+

# 3468. Re: AM radio reception inside passenger planes?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-11 20:42:22 UTC
From: Dave Bushong <db@9y.com>
Message-ID: <xc6dnVq7GpwyxibcRVn-ug@adelphia.com>
Source record: 85465
Cross-posted to: rec.travel.air,rec.radio.amateur.antenna,sci.electronics.equipment

Some Guy wrote:
> I have no trouble receiving FM radio broadcasts on a small am/fm radio
> I sometimes listen to while onboard commercial jet airliners (flying
> at cruise altitude), but I never seem to be able to pick up AM radio
> stations. It's just static across the AM band.
>
> Any explanation for this?

Yes, there is. The AM cops have figured you out, since what you are doing is illegal on commercial airliners. The FM cops are a little slower, but they will pull the plug on you also, eventually.

Seriously, though, you are inside a metal cigar tube you call an airplane, and you are being shielded by the body of the aircraft. Although windows (portholes, not Gates), and the metal itself, don't block out signals completely, you will see an effect from this (look up "Faraday Cage" on google). AM broadcast is a very long wavelength (hundreds of meters long) whereas FM broadcast is a smaller wavelength (around 3 meters). If you were trying to throw a bunch of marbles through an upstairs window, you would probably be able to do it. But if you were trying to throw a bunch of beachballs through an upstairs window, it wouldn't be as easy, right?

The aperture is the important issue. Although the airplane is not a completely shielded RF-proof "screen room", it acts somewhat like one. That is why avionics antennas are on the outside of the plane, not inside. That is also why there is a teeny mesh grid in the door of your microwave oven - they have to be that small to block the microwaves.

Using my example before: if you are throwing beachballs (AM broadcast), or marbles (FM broadcast) or a handful of sand (microwaves), how small would you want the window to be in order to block it?

OK, getting back to my first paragraph, if you are ever on a plane with me, please let me know, so I can take the next flight. The local oscillator of FM receivers is often on the same frequency as the VOR stations that airplanes use to naviagate with, and can cause interference. There are failsafe solutions that the pilot has, to deal with loss of VOR coverage, but I don't want to depend on them because you are listening to gangster rap at 32,000 feet. Get an iPod or something.

All the best,
Dave

# 3469. Re: AM radio reception inside passenger planes?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-11 21:23:56 UTC
From: Ether Hopper <EH@skip.net>
Message-ID: <MzJud.4691$ve.1212@fed1read06>
Source record: 85466
Cross-posted to: rec.travel.air,rec.radio.amateur.antenna,sci.electronics.equipment

And you do want the Avionics to work properly don't you ???

--
RF Gotta Go SomeWhere

"Ether Hopper" <EH@skip.net> wrote in message
news:piIud.4676$ve.1869@fed1read06...
> No one has mentioned that in many cases you need the pilot's permission to
> operate a radio or other electronic device for that matter on a commercial
> airliner. That includes AM/FM radios.
>
> Radio emissions may screw up the plane's avionics.
>
> See URL:
> http://www.fordyce.org/scanning/scanning_info/scan_fly.html
>
> It sez:
> "The FAA does not allow inflight use of walkie-talkies, radio controlled
> toys, AM/FM radios, portable telephones, or portable television sets, all
> of which may affect aircraft radio and navigation equipment"
>
> Also cruise ships may deny use of two way (FRS) or ham radios -- always
> check with the communications officer.
>
> For Hams always check with the person in charge on any commercial
> transportation, busses, taxi's, ships planes etc.
>
> Yeah yeah I know you did it without getting permission, but read the URL
> as to what airlines have published.
>
> And I know from personal experience that some cruise lines do not allow
> FRS or ham radios transmissions.
>
> --
> RF Gotta Go SomeWhere
>
>
>
> "nick smith" <NickS@ntlworld.com> wrote in message
> news:MZHud.680$Uh.421@newsfe1-win.ntli.net...
>>
>> "Geoff Glave" <nospam@nospam.com> wrote in message
>> news:HxHud.9448$eb3.8331@clgrps13...
>>> > Any explanation for this?

>>>
>>> FM radio generally operates at longer range than AM radio, however it's
>>> limited to line-of-sight. However, when you're 40,000 feet up you can
>>> "see"
>>> a lot of transmitters hence the FM signals.
>>>
>>> Cheers,
>>> Geoff Glave
>>> Vancouver, Canada
>>>
>>>
>>
>> I reckon you just answered the wrong question !!
>>
>> The reason A.M. radio can not be received in a plane is that it is a
>> Faraday
>> cage to the (lower frequency) A.M
>> frequencies, whereas the VHF frequencies can just about get through the
>> windows.
>>
>> There may be a bit of frequency / range issue as well but top band and 80
>> mtrs
>> gets across the pond so
>> I don't think this is the issue here...
>>
>> Nick
>>
>>
>
>

# 3470. Re: Browser

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-11 21:33:49 UTC
From: "aunwin@insightbb.com"
Message-ID: <1JJud.555711$D%.438@attbi_s51>
Source record: 85467

Dave, we all have been hit one time or another with a computor problem. One time many on this newsgroup got hit with a hiddious virus that upset many so I think you are a bit out of step on this one ,even tho you see your main duty as being a Net Cop.
The fact of the matter is that the main core of premier antenna help contributors all posted on this subject which shows that not only do these members have special expertise with antennas but also have the expertise relative to the computor connection with respect to antennas and the like, and are willing to share with less ability minded people like myself.
Remember the main core of contributors to this group are no lesser an Elmer to that which you pump yourself to be to give you the verbal justification , but I assure you that if a thread unrelated to the primary interests of this group
appeared on a regular basis the initiator would either be ignored or quickly put into his place.
I note that a recent poster stated he was a ham by fraudulent means but apparently you view his thread as more legitamate than mine which is so intertwined and connected to the direction that antennas are moving today and where I am sure you must have posted many times on this particular newsgroup where such programs can be executed ( I assume I have overlooked your antenna contributions) on a $5 Walmart calculator as to make the computor irrelavent to this group.
Since you state that many readers are upset or unhappy with the lack of true antenna
content of this newsgroup now would be the time for an Elmer so proficient as you with respect to what is "right" and what is "wrong" to start a new antenna newsgroup to satisfy the needs of like minded people who are more interested in political correctness than in technical content, of the latter none of which was evident in your posting that only added to the length to the thread without a modicom of antenna content. I think you would have a real hard time in attracting the
groups membership that has such a deep knoweledge and expertise that they are willing to share where the content of their postings must satisfy total political correctness and subject to your absolute rules of what can be written or replied to.
However, if all antenna questions were directed to you for a response you would not have the problem that you ascribe to this newsgroup and amateur radio most certainly would be the beneficiory in your mind of having an alternative.

Let me just assume this is just a consequence of you having a bad day so I can push it all aside
and wish you and your family a happy holiday.
Regards

Art

"Dave Bushong" <db@9y.com> wrote in message
news:2eudnc83d4qvxSbcRVn-rg@adelphia.com...
> Mike Coslo wrote:
> >
> > Dave Bushong wrote:
> >
> >> aunwin@insightbb.com wrote:
> >>
> >>> I am finding that WindowsXP is allowing 20 cookies (plus other stuff
> >>> ) a day
> >>> [...]
> >>
> >>
> >>
> >> HEY!!!!!!!!!!!!!!!!!
> >>
> >> REC . RADIO . AMATEUR . ANTENNA
> >
> >
> > Yo! NetCop! Wassup?
> >
> > - Mike KB3EIA
> >
>
> Hi Mike,
>
> Thanks for your followup posting, and here is Wassup.
>
> I'm not a "NetCop", but instead, an "Elmer". I teach new hams not to
> stick a fork into the light socket, not to transmit on a dual-band radio
> on band "B" when you are listening on band "A", and other embarrassing
> things. I also teach new newsgroup posters that posting an article, and
> then nearly 30 followups, to an antenna newsgroup, is wrong. It is
> wrong because people who subscribe to the rec.radio.amateur.antenna
> newsgroup have a reasonable expectation that postings here will have
> something to do with ham radio antennas, or at least ham radio, or maybe
> radio, or at least antennas, or maybe even CB microphones. Not cookies.
>
> With 40,000+ newsgroups out there, there is just no reason to post a
> generic "help-me" message about Windows XP cookies, into a newsgroup
> about ham radio antennas. I've been wrong before, but this time, I'm not.
>
> 73,
> Dave
> KZ1O

## 3471. Re: AM radio reception inside passenger planes?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-11 22:11:44 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <ymKud.23648$Af.3577@fed1read07>
Source record: 85468
Cross-posted to: rec.travel.air,rec.radio.amateur.antenna,sci.electronics.equipment

"Ian Jackson" <IanJacksonRemoveThisBit@g3ohx.demon.co.uk> wrote in message news:qQ5qidE8P1uBFw7f@g3ohx.demon.co.uk...
> In message <piIud.4676$ve.1869@fed1read06>, Ether Hopper <EH@skip.net>
> writes
>>No one has mentioned that in many cases you need the pilot's permission to
>>operate a radio or other electronic device for that matter on a commercial
>>airliner. That includes AM/FM radios.
>>
>>Radio emissions may screw up the plane's avionics.
>
> Virgin included the use of radio receivers in their 'permitted list' about
> 3 years ago. However, I do wonder about the use of the FM broadcast band
> because the LO (tuned freq + 10.7MHz) can land up right on top of
> something important in the ATC band.
> Ian.
> --
>

Exactly the concern. LO's are used for superhet receivers, and fancier receivers are more computer than analog RF. So now, you have a clock oscillator, with it's harmonics, as another RF source. And don't tell me these emissions are negligible. Receiver (and other electronics manufacturers) sweat blood to reduce those emissions so that they can meet FCC Part 15 (among other) requirements (modest radiation limits at 3 meters distance from the test specimen).

The fact that apertures in the fuselage allow FM frequencies INTO the aircraft, letting you pick them up with the miserably small FM antenna in your receiver, also means that LO leakage from your receiver can get OUT of those same apertures.

You now have the effect of having a small radiation source immediately outside the fuselage, just feet or so from the Avionics antennas. What are the coupling effects? What frequency will your LO land on? Do you feel lucky, punk?

So, in all honesty, YOU can't really say how dangerous operation of an FM receiver will be; but you KNOW that it's potentially harmful.

The advice to ask the PIC (pilot in command) to make allowance for you is just plain dumb. The guy is an aircraft driver, not an expert in RF propagation. He has overall responsibility for getting you to your destination while avoiding legal exposure to himself and the airline. You are asking him to allow a potentially dangerous device to be operated just for your convenience and entertainment. Switch roles for just a minute.

Would YOU allow that? Now switch back. If your PIC would allow it, what else would he be willing to allow or overlook?

While I will admit that aircraft disasters are rarely caused by a single factor, it's just plain dumb to add risks that you don't need to take. I want pilots who are conservative, who do a thorough pre-flight walk-around even when it's raining, and who will enforce rational rules on self-centered, ignorant passengers. Can't you put your electronic life on hold for a few hours? Whatever happened to reading a book, or just looking out the window?

Ed
wb6wsn

# 3472. Strange question about SWR on HV lines

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-11 22:33:22 UTC
From: ON5MJ <my_call_sign@skynet.be>
Message-ID: <41bb7597$0$7822$ba620e4c@news.skynet.be>
Source record: 85469

Hi there,

A friend of mine asks what happens on high voltage distribution lines about SWR at the distribution frequency (50/60 Hz). I'm stuck.

I understand that HV generators/transformers behave like voltage sources and not power sources. This means that conjugate impedances don't apply here but what about the existence of SWR on those kind of lines and the possible consequences on very long lines.

Anyone has an idea ?

73 de ON5MJ - Jacques.

# 3473. Re: Browser

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-11 22:41:11 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10rmts9nlcg4c1c@corp.supernews.com>
Source record: 85471

Unlike DOS, Windows is a multi-tasking environment. Therefore, if you have many programs running at once, each will run slower. (You can, if you want, apportion the CPU time unequally among them.) However, as far as I can tell, the total time it takes for all of them to do their calculations isn't inherently slower with Windows than DOS. Windows-based antenna simulation programs are no different than other Windows applications.

When running in "DOS mode" (under Windows systems prior to XP -- it's not available in XP), you are running in a true, single-tasking DOS environment. This is the mode you have to boot separately into when starting the computer. But if you choose the "DOS prompt" (or "command prompt") while running Windows, you're really running in the full Windows environment, and emulating DOS as just another Windows task. Programs running in this mode can't run any faster than a normal, native Windows program, since they're also subject to the time sharing of the multi-tasking system. There might actually be some additional overhead from the emulation process.

The first Windows version of EZNEC, v. 3.0, ran calculations about 20% faster than the DOS version, possibly due to a compiler change. There was certainly no major slowing down of the calculations due to the different operating system. The current version of EZNEC, v. 4.0, runs up to several *times* faster than that due to code changes.

Roy Lewallen, W7EL

aunwin@insightbb.com wrote:
> . . .
> On a side note with respect to some computors slowing down. Are the Windows
> based computor programs
> with respect to antenna modelling also subject to overload or slowing down
> problems or are they some how
> immune to the described problems?
> . . .

# 3474. Re: Loop Antenna as Triangle?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-11 22:42:28 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10rmtunan40im38@corp.supernews.com>
Source record: 85470

That's interesting. In what way is the "effectiveness" of a circular loop decreased by changing its shape?

Roy Lewallen, W7EL

Gary V. Deutschmann, Sr. wrote:
> Hi Ed
>
> The IDEAL loop skywire is a perfect circle!
>
> Any deviation from that reduces it's affectiveness, but not very
> appreciatively that you would notice enough for it to warrant worrying
> about it.
>
> I've had loop skywires that resembled the letters M, R and even close
> to the letter V all closed loops of course, and I saw no difference in
> their performance.
>
> TTUL
> Gary
>

# 3475. Re: Using AM/FM radios inside passenger planes?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-11 22:55:04 UTC
From: Ether Hopper <EH@skip.net>
Message-ID: <cVKud.4709$ve.3095@fed1read06>
Source record: 85372
Cross-posted to: rec.travel.air,rec.radio.amateur.antenna,sci.electronics.equipment

Part 91 GENERAL OPERATING AND FLIGHT RULES
Subpart A--General

FAA Regulations Sec. 91.21

Portable electronic devices.

(a) Except as provided in paragraph (b) of this section, no person may operate, nor may any operator or pilot in command of an aircraft allow the operation of, any portable electronic device on any of the following U.S.-registered civil aircraft:
(1) Aircraft operated by a holder of an air carrier operating certificate or an operating certificate; or
(2) Any other aircraft while it is operated under IFR.
(b) Paragraph (a) of this section does not apply to--
(1) Portable voice recorders;
(2) Hearing aids;
(3) Heart pacemakers;
(4) Electric shavers; or
(5) Any other portable electronic device that the operator of the aircraft has determined will not cause interference with the navigation or communication system of the aircraft on which it is to be used.
(c) In the case of an aircraft operated by a holder of an air carrier operating certificate or an operating certificate, the determination required by paragraph (b)(5) of this section shall be made by that operator of the aircraft on which the particular device is to be used. In the case of other
aircraft, the determination may be made by the pilot in command or other operator of the aircraft.
---

Seems to me the pilot ought to know.

Again I direct you to URL:
http://www.fordyce.org/scanning/scanning_info/scan_fly.html

--
RF Gotta Go SomeWhere

"Ed Price" <edprice@cox.net> wrote in message
news:ymKud.23648$Af.3577@fed1read07...
>
> "Ian Jackson" <IanJacksonRemoveThisBit@g3ohx.demon.co.uk> wrote in message
> news:qQ5qidE8P1uBFw7f@g3ohx.demon.co.uk...
>> In message <piIud.4676$ve.1869@fed1read06>, Ether Hopper <EH@skip.net>

>> writes
>>>No one has mentioned that in many cases you need the pilot's permission
>>>to
>>>operate a radio or other electronic device for that matter on a
>>>commercial
>>>airliner. That includes AM/FM radios.
>>>
>>>Radio emissions may screw up the plane's avionics.
>>
>> Virgin included the use of radio receivers in their 'permitted list'
>> about 3 years ago. However, I do wonder about the use of the FM broadcast
>> band because the LO (tuned freq + 10.7MHz) can land up right on top of
>> something important in the ATC band.
>> Ian.
>> --
>>
>
> Exactly the concern. LO's are used for superhet receivers, and fancier
> receivers are more computer than analog RF. So now, you have a clock
> oscillator, with it's harmonics, as another RF source. And don't tell me
> these emissions are negligible. Receiver (and other electronics
> manufacturers) sweat blood to reduce those emissions so that they can meet
> FCC Part 15 (among other) requirements (modest radiation limits at 3
> meters distance from the test specimen).
>
> The fact that apertures in the fuselage allow FM frequencies INTO the
> aircraft, letting you pick them up with the miserably small FM antenna in
> your receiver, also means that LO leakage from your receiver can get OUT
> of those same apertures.
>
> You now have the effect of having a small radiation source immediately
> outside the fuselage, just feet or so from the Avionics antennas. What are
> the coupling effects? What frequency will your LO land on? Do you feel
> lucky, punk?
>
> So, in all honesty, YOU can't really say how dangerous operation of an FM
> receiver will be; but you KNOW that it's potentially harmful.
>
> The advice to ask the PIC (pilot in command) to make allowance for you is
> just plain dumb. The guy is an aircraft driver, not an expert in RF
> propagation. He has overall responsibility for getting you to your
> destination while avoiding legal exposure to himself and the airline. You
> are asking him to allow a potentially dangerous device to be operated just
> for your convenience and entertainment. Switch roles for just a minute.
> Would YOU allow that? Now switch back. If your PIC would allow it, what
> else would he be willing to allow or overlook?
>
> While I will admit that aircraft disasters are rarely caused by a single
> factor, it's just plain dumb to add risks that you don't need to take. I
> want pilots who are conservative, who do a thorough pre-flight walk-around

> even when it's raining, and who will enforce rational rules on
> self-centered, ignorant passengers. Can't you put your electronic life on
> hold for a few hours? Whatever happened to reading a book, or just looking
> out the window?
>
> Ed
> wb6wsn
>

# 3476. Re: FS 8 pill Linear

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-11 23:12:34 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <C9Lud.24460$Af.19281@fed1read07>
Source record: 85373
Cross-posted to: rec.radio.cb,rec.radio.amateur.policy,rec.radio.amateur.antenna,alt.ham-radio.vhf-uhf,rec.radio.amateur.misc

"WA3MOJ" <WA3MOJ@home.com > wrote in message
news:cpegt801k76@drn.newsguy.com...
> In article <OQsud.38868$bP2.25120@newssvr12.news.prodigy.com>, Adair
> Winter
> says...
>>
>>"KC8QJP" <KC8QJP@yahoo.com> wrote in message
>>> http://tinypic.com/vvqkp
>>>
>>> My friend is building these in his basement. Be LOUD and PROUD!
>>>
>>> $500 firm.
>>>
>>> Contact N8WWM@arrl.net
>>>
>>
>>LOL! I don't think I want to transmit thur anything that has "pills" in
>>it..
>><G>
>>
>>Adair
>>
>>
> You fucking pussy! My 32 pill will make you sound like a mud duck!
>
>
> --
> Young Men are delicious,
> Healthy, virile and strong,
> With smooth skin, a firm fleshy arse,
> And hair growing where it belongs.

Assuming those sentiments are not forged, it explains why WA3MOJ has almost
1400 look-ups at QRZ. I guess everyone can't imagine how a supposedly bright
guy could be such an ass.

Ed
wb6wsn

# 3477. Re: Browser

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-11 23:18:33 UTC
From: "aunwin@insightbb.com"
Message-ID: <dfLud.246079$R05.23777@attbi_s53>
Source record: 85374

Roy
Believe it or not I understand what you have posted so the info you have
provided will be good news to antenna modelers.
I really do not know how my personal antenna program works except I have a
small disc inserted that when I start the computor I have to press the F12
key when prompted and somehow it does not display the normal windows entry
but
goes straight into a DOS managed antenna modeler program. I suspect that the
disc somehow partitions the Dos emulator from the windows program and makes
it a seperate entity in a similar way that previous widows programs did
before they were bundled together.When I model closely coupled antenna
elements designs where one has to make it 80 segments a shot a slow down of
the coprocessor would be unacceptable
Regards
Art

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:10rmts9nlcg4c1c@corp.supernews.com...
> Unlike DOS, Windows is a multi-tasking environment. Therefore, if you
> have many programs running at once, each will run slower. (You can, if
> you want, apportion the CPU time unequally among them.) However, as far
> as I can tell, the total time it takes for all of them to do their
> calculations isn't inherently slower with Windows than DOS.
> Windows-based antenna simulation programs are no different than other
> Windows applications.
>
> When running in "DOS mode" (under Windows systems prior to XP -- it's
> not available in XP), you are running in a true, single-tasking DOS
> environment. This is the mode you have to boot separately into when
> starting the computer. But if you choose the "DOS prompt" (or "command
> prompt") while running Windows, you're really running in the full
> Windows environment, and emulating DOS as just another Windows task.
> Programs running in this mode can't run any faster than a normal, native
> Windows program, since they're also subject to the time sharing of the
> multi-tasking system. There might actually be some additional overhead
> from the emulation process.
>
> The first Windows version of EZNEC, v. 3.0, ran calculations about 20%
> faster than the DOS version, possibly due to a compiler change. There
> was certainly no major slowing down of the calculations due to the
> different operating system. The current version of EZNEC, v. 4.0, runs
> up to several *times* faster than that due to code changes.
>
> Roy Lewallen, W7EL

>
> aunwin@insightbb.com wrote:
> > . . .
> > On a side note with respect to some computors slowing down. Are the
Windows
> > based computor programs
> > with respect to antenna modelling also subject to overload or slowing
down
> > problems or are they some how
> > immune to the described problems?
> > . . .

# 3478. Re: Browser

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-11 23:40:40 UTC
From: Bob Miller <rmiller47@satx.rr.com>
Message-ID: <l51nr0h7pnr9sori1dsvkvf7981r377c6t@4ax.com>
Source record: 85375

On Sat, 11 Dec 2004 05:52:58 -0700, K7MEM <k7mem@myrealbox.com> wrote:

>David G. Nagel wrote:

>
>
>But, in the end, I don't have many complaints about XP and IE. I wish
>IE had a popup blocker like Netscape. The popups do get through, but
>I have never had a problem with throwing them away as soon as they
>pop up. I do highly recommend Netscape. I have found that it renders
>everything very closely to IE and FireFox. Some minor differences but
>nothing great.

FYI, I have IE6, with Service Pack 2 (for XP Home Edition), and that
includes a Microsoft pop-up blocker. It works better than StopZilla's
blocker, and it's free.

Bob
k5qwg

# 3479. Re: Strange question about SWR on HV lines

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-11 23:54:35 UTC
From: jgboyles@aol.com
Message-ID: <20041211185435.07145.00001571@mb-m10.aol.com>
Source record: 85376

>I understand that HV generators/transformers behave like voltage sources and
>not power sources. This means that conjugate impedances don't apply here but
>what about the existence of SWR on those kind of lines and the possible
>consequences on very long lines

Hi Jacques, A 60 HZ power grid has generators, loads and matching devices,
just like your Ham rig. The generators have step-up transformers, and at your
home you have step-down transformers, which are impedance matching devices.
Just like your Ham rig doesn't like working into a reactive or mismatched
load, neither does the power company. In the case of a reactive load the power
company switches in capacitors to compensate. Capacitors are used due to the
inductive load produced by the multitude of induction motors out there.
If your Ham transmission line operates into a mismatch, you have a high VSWR,
same thing with the power company. The power company has to compensate or lots
of people will be sitting in a cold dark house. You have matching problems
whether you are operating at 60 HZ, or 14 MHZ.

73 Gary N4AST

# 3480. Re: FS 8 pill Linear

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-12 00:00:10 UTC
From: Paw-Paw <pawpaw@granpa.com>
Message-ID: <YQLud.139143$IQ.89693@bignews6.bellsouth.net>
Source record: 85377
Cross-posted to: rec.radio.cb,rec.radio.amateur.policy,rec.radio.amateur.antenna,alt.ham-radio.vhf-uhf,rec.radio.amateur.misc

"Ed Price" <edprice@cox.net> wrote in message
news:C9Lud.24460$Af.19281@fed1read07...
>
> "WA3MOJ" <WA3MOJ@home.com > wrote in message
> news:cpegt801k76@drn.newsguy.com...
>> In article <OQsud.38868$bP2.25120@newssvr12.news.prodigy.com>, Adair
>> Winter
>> says...
>>>
>>>"KC8QJP" <KC8QJP@yahoo.com> wrote in message
>>>> http://tinypic.com/vvqkp
>>>>
>>>> My friend is building these in his basement. Be LOUD and PROUD!
>>>>
>>>> $500 firm.
>>>>
>>>> Contact N8WWM@arrl.net
>>>>
>>>
>>>LOL! I don't think I want to transmit thur anything that has "pills" in
>>>it..
>>><G>
>>>
>>>Adair
>>>
>>>
>> You fucking pussy! My 32 pill will make you sound like a mud duck!
>>
>>
>> --
>> Young Men are delicious,
>> Healthy, virile and strong,
>> With smooth skin, a firm fleshy arse,
>> And hair growing where it belongs.
>
>
> Assuming those sentiments are not forged, it explains why WA3MOJ has
> almost 1400 look-ups at QRZ. I guess everyone can't imagine how a
> supposedly bright guy could be such an ass.
>
> Ed
> wb6wsn

Could be the Name-

# 3481. Re: AM radio reception inside passenger planes?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-12 00:09:57 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <mf2nr0hn2u850gube0gsuo07df1hs5ee1b@4ax.com>
Source record: 85378
Cross-posted to: rec.travel.air,rec.radio.amateur.antenna,sci.electronics.equipment

On Sat, 11 Dec 2004 14:11:44 -0800, "Ed Price" <edprice@cox.net>
wrote:

>You
>are asking him to allow a potentially dangerous device to be operated just
>for your convenience and entertainment. Switch roles for just a minute.

Hi Ed,

This would make sense (to switch roles) if the administration hadn't
trumped that call. Reports recently indicate that the FAA may soon
allow anyone, anytime, to make cell phone calls while in flight.

Anything goes for a price. The FDA has proven that it is no longer
the watchdog of medicine, and the FCC is the gateway for spectrum
bargains and marketplace sweeps.

With these acronyms, one may well wonder what the "F" stands for.

73's
Richard Clark, KB7QHC

# 3482. Re: AM radio reception inside passenger planes?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-12 00:10:18 UTC
From: Some Guy <Some@guy.com>
Message-ID: <41BB8C6A.FD42C1E7@guy.com>
Source record: 85380
Cross-posted to: rec.travel.air,rec.radio.amateur.antenna,sci.electronics.equipment

What a load of horse shit.

You guys are acting as if the engines and flight control surfaces of an aircraft are intimately tied to the plane's radio receiver, and the slightest odd or out-of-place signal that it receives is enough to send any plane into a tail spin.

All this while the air travel industry is considering allowing passengers to use their own cell phones WHILE THE PLANES ARE IN FLIGHT by adding cell-phone relay stations to the planes and allowing any such calls to be completed via satellite. So I guess the feeble radiation by my FM radio (powered by 2 AAA batteries) is enough to cause a plane to dive into the ocean, but the guy next to me putting out 3 watts of near-microwave energy is totally safe.

What about my hand-held GPS unit? Any chance me using it (during all phases of a flight, which I do routinely) will result in a one-way ticket to kingdom come?

Getting back to the original question (poor to non-existant AM reception), I understand the idea of aperature and long wavelenths of AM radio and the size of airplane windows - but what about the effect of ALL the windows on a plane? Don't they create a much larger effective apperature when you consider all of them? And since the plane isin't grounded, isin't the exterior shell of a plane essentially transparent to all RF (ie it's just a re-radiator) because it's not at ground potential?

# 3483. Re: Strange question about SWR on HV lines

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-12 00:24:51 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <993nr09muto6eakhj2o3guiltms2idlveg@4ax.com>
Source record: 85379

On Sat, 11 Dec 2004 23:33:22 +0100, "ON5MJ" <my_call_sign@skynet.be>
wrote:
>A friend of mine asks what happens on high voltage distribution lines about
>SWR at the distribution frequency (50/60 Hz). I'm stuck.

Hi Jacques,

You should have stopped right there because the rest of your
statements were crowding into the province of old wive's tales.

When Hoover Dam was put into commission delivering Power to Los
Angeles, the distance was far enough to observe the effects of SWR -
in exactly the same manner we observe them on lines at HF, or VHF etc.

The notion of "Matching" was born in the AC Power industry.

73's
Richard Clark, KB7QHC

# 3484. Re: AM radio reception inside passenger planes?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-12 00:49:51 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <514nr0de51ji1q030afii1du2q44565ofq@4ax.com>
Source record: 85381
Cross-posted to: rec.travel.air,rec.radio.amateur.antenna,sci.electronics.equipment

On Sat, 11 Dec 2004 19:10:18 -0500, Some Guy <Some@guy.com> wrote:

>Getting back to the original question (poor to non-existant AM
>reception), I understand the idea of aperature and long wavelenths of
>AM radio and the size of airplane windows - but what about the effect
>of ALL the windows on a plane? Don't they create a much larger
>effective apperature when you consider all of them?

This becomes a matter of the distance between them and the phase separation at any wavelength. What you describe is a common technique for coupling power between waveguides (in what are called directional couplers). However, this is not the same thing as accumulating and enlarging an opening because such couplers will add energy in one direction, and subtract it in the other (which makes for their directionality).

> And since the
>plane isin't grounded, isin't the exterior shell of a plane
>essentially transparent to all RF (ie it's just a re-radiator) because
>it's not at ground potential?

Ground does not always mean "at one with the dirt and rocks." At one time it did, when cowboys put up talking wires, and indians pulled them down. Ground has since come to mean "common" (which when you think of it, brings us back to dirt, metaphorically). Common means that everything is at the same potential. If there is no potential difference, then there is no way to measure a voltage based signal. In other words, it's a massive short circuit, and the only way to sense a signal is to inductively couple to the short circuit current.

This takes us to the second killer courtesy of physics. High frequency current travels on the surface of smallest, positive radius. AM frequency qualifies here in spades, even though it is conventionally called not HF but MF (even VLF qualifies as High Frequency in this context). The aircraft frame thus presents both curvature and radius such that the current confines itself to the outside of the shell with an inclination for the narrow wings and tail section, rather than the elongated body.

You might be tempted to inductively tap into this frame current, but then you are on the negative, inside radius of the current carrier (makes the tube interior self-shielding). Whatever current is flowing, is on the outside of the skin, not the inside - that is, until we consider skin depth and penetration. But then it appears that experience described here suggests that not much of that frame

current penetrates inside.

73's
Richard Clark, KB7QHC

# 3485. Re: I PASS MY TEST ALSO THE EASY WAY.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-12 00:52:02 UTC
From: Tom Ring <news0000@taring.org>
Message-ID: <41bb9633$0$5219$39cecf19@news.twtelecom.net>
Source record: 85382

g g wrote:

> the dx was great today on the hf bands talk to a lot of people.found me
> a extra class call love the comments welcome to the club
> thanks for the support hams are loving people cq cq contest cant wait
> god bless yall
>

Nice troll. Of course you probably don't know what a troll is in a
newsgroup context. It essentially means we know you're just trying to
get people riled up.

So you can just go away now and play with other people who actually
_are_ suckers.

tom
K0TAR

## 3486. Re: AM radio reception inside passenger planes?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-12 00:52:59 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10rn5jee0qdgt2f@corp.supernews.com>
Source record: 85383
Cross-posted to: rec.travel.air,rec.radio.amateur.antenna,sci.electronics.equipment

Some Guy wrote:
> What a load of horse shit.
>
> You guys are acting as if the engines and flight control surfaces of
> an aircraft are intimately tied to the plane's radio receiver, and the
> slightest odd or out-of-place signal that it receives is enough to
> send any plane into a tail spin.
>
> All this while the air travel industry is considering allowing
> passengers to use their own cell phones WHILE THE PLANES ARE IN FLIGHT
> by adding cell-phone relay stations to the planes and allowing any
> such calls to be completed via satellite. So I guess the feeble
> radiation by my FM radio (powered by 2 AAA batteries) is enough to
> cause a plane to dive into the ocean, but the guy next to me putting
> out 3 watts of near-microwave energy is totally safe.
>
> What about my hand-held GPS unit? Any chance me using it (during all
> phases of a flight, which I do routinely) will result in a one-way
> ticket to kingdom come?

Too bad it's not that simple. But if you're really into this kind of argument, do a groups.google.com search of the sci.geo.satellite-nav newsgroup. There you'll find endless argument, speculation, and rationalization ranging from well informed to completely clueless. There's surely more than ample ruminating there to satisfy anyone, regardless of your orientation or clue level; it's surely not necessary to do it all over again here.

> Getting back to the original question (poor to non-existant AM
> reception), I understand the idea of aperature and long wavelenths of
> AM radio and the size of airplane windows - but what about the effect
> of ALL the windows on a plane? Don't they create a much larger
> effective apperature when you consider all of them?

A bit larger, yes. But the attenuation inside is still very high, since the windows are extremely small and spaced very close, in terms of wavelength. Sort of like the screen of a screen room.

> And since the
> plane isin't grounded, isin't the exterior shell of a plane
> essentially transparent to all RF (ie it's just a re-radiator) because
> it's not at ground potential?

No, being at "ground potential" plays no part in shielding. Currents and fields on the outside aren't magically allowed to violate basic laws of

physics and migrate through a good conductor just because a shield isn't at "ground potential". For that matter, a box that is at "ground potential" at the bottom is nowhere near that potential a quarter wavelength up the side. No shield over a small fraction of a wavelength on a side could work if "ground potential" were a requirement. Yet room-sized shielded enclosures are routinely used into the microwave region. Try your own experiment. Turn your portable radio on, turn up the volume, put it into a sealed can, set it on a stool, and see how much you hear.

Roy Lewallen, W7EL

# 3487. Re: AM radio reception inside passenger planes?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-12 01:21:03 UTC
From: Ether Hopper <EH@skip.net>
Message-ID: <22Nud.4763$ve.627@fed1read06>
Source record: 85384
Cross-posted to: rec.travel.air,rec.radio.amateur.antenna,sci.electronics.equipment

Well you have been referred to the FAA Regs and the Airline policies and
ignored them.

http://www.fordyce.org/scanning/scanning_info/scan_fly.html

http://www.airweb.faa.gov/Regulatory_and_Guidance_Library/rgFAR.nsf/MainFrame?OpenFrameSet
Section 91.21
---
So here is another URL we hope you read about GPS
http://gpsinformation.net/airgps/gpsrfi.htm

Just a snip:
There are documented cases of AM/FM radios causing interference with Avionic
systems and as a result, AM/FM radio receivers are generally prohibited.

You will be happy to learn of this quote;
"By design, (or happy accident), the "spurs" generated by a GPS generally
fall outside the communications frequencies used by Aircraft and so have not
been a problem even though a few "spurs" exist.
But SOME airlines do not permit the use of GPS receivers. Why is that if
they are "safe"?"

You will be unhappy with the answers. Hope you go to the URL for the answers

Here is one:
If a GPS is safe, why can't I use it on an airplane anyway, even if the
pilot says NO?
Answer:
This would be a) unwise, b) illegal and c) dangerous. Never presume that
you have more authority than the Captain of a ship! He is responsible for
the lives of his passengers and likely has knowledge and experience about
his aircraft and/or equipment and/or this particular flight that no one else
has.. The use of a GPS by a passenger is NOT worth a confrontation and a
possible visitation from the police or FBI when you land..

READ THE LAST SENTENCE AGAIN

Be safe, obey the law, stop guessing -- get educated and read these URL's

--
RF Gotta Go SomeWhere

"Some Guy" <Some@guy.com> wrote in message news:41BB8C6A.FD42C1E7@guy.com...
> What a load of horse shit.
>
> You guys are acting as if the engines and flight control surfaces of

> an aircraft are intimately tied to the plane's radio receiver, and the
> slightest odd or out-of-place signal that it receives is enough to
> send any plane into a tail spin.
>
> All this while the air travel industry is considering allowing
> passengers to use their own cell phones WHILE THE PLANES ARE IN FLIGHT
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> radiation by my FM radio (powered by 2 AAA batteries) is enough to
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> AM radio and the size of airplane windows - but what about the effect
> of ALL the windows on a plane? Don't they create a much larger
> effective apperature when you consider all of them? And since the
> plane isin't grounded, isin't the exterior shell of a plane
> essentially transparent to all RF (ie it's just a re-radiator) because
> it's not at ground potential?

# 3488. Re: For Sale: Kenwood TS-870 Station

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-12 01:57:40 UTC
From: whoever <whoever@wherever>
Message-ID: <SfadnSlAwv4IOCbcRVn-jw@centurytel.net>
Source record: 85385
Cross-posted to: alt.ham-radio.marketplace,rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.swap

Hell it was put on ebay less then 3 hours after your first fs post!

laborkei wrote:

> After getting overwhelmed with emails, I decided to cop out and go with
> eBay.
> http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&rd=1&item=ripoff
>
> Happy Bidding !
>
> "laborkei" <laborkeiNOSPAM@hotmail.com> wrote in message
> news:ehmud.65841$fY.58348@bignews3.bellsouth.net...
>
>>>Just ordered a new Icom PROIII, need to sell the following.
>>>will be offering my Kenwood TS870, PS-52, and SP-31 Speaker, MC-90
>>>Microphone as a package deal.
>>>
>>>Have no idea what it is worth yet, but this radio is a "Cream Puff".
>>>Not a scratch on it, and covered with a towel when not in use.
>>>
>>>There are some pictures of the radio on my Website.
>>>Anyone interested, please drop me an email, address is on QRZ.com as well
>>>as URL.
>>>
>>>73's
>>>
>>>
>>
>>
>
>

# 3489. Re: AM radio reception inside passenger planes?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-12 02:33:53 UTC
From: CW <cmagers@earthlink.net>
Message-ID: <ubKdnZdIn99QMCbcRVn-qA@comcast.com>
Source record: 85387
Cross-posted to: rec.travel.air,rec.radio.amateur.antenna,sci.electronics.equipment

So, you contend that he cannot hear AM (MW) transmissions because the pilot
didn't give his permission?

"Ether Hopper" <EH@skip.net> wrote in message
news:piIud.4676$ve.1869@fed1read06...
> No one has mentioned that in many cases you need the pilot's permission to
> operate a radio or other electronic device for that matter on a commercial
> airliner. That includes AM/FM radios.
>
> Radio emissions may screw up the plane's avionics.
>
> See URL:
> http://www.fordyce.org/scanning/scanning_info/scan_fly.html
>
> It sez:
> "The FAA does not allow inflight use of walkie-talkies, radio controlled
> toys, AM/FM radios, portable telephones, or portable television sets, all
of
> which may affect aircraft radio and navigation equipment"
>
> Also cruise ships may deny use of two way (FRS) or ham radios -- always
> check with the communications officer.
>
> For Hams always check with the person in charge on any commercial
> transportation, busses, taxi's, ships planes etc.
>
> Yeah yeah I know you did it without getting permission, but read the URL
as
> to what airlines have published.
>
> And I know from personal experience that some cruise lines do not allow
FRS
> or ham radios transmissions.
>
> --
> RF Gotta Go SomeWhere
>
>
>
> "nick smith" <NickS@ntlworld.com> wrote in message
> news:MZHud.680$Uh.421@newsfe1-win.ntli.net...
> >
> > "Geoff Glave" <nospam@nospam.com> wrote in message

> > news:HxHud.9448$eb3.8331@clgrps13...
> >> > Any explanation for this?
> >>
> >> FM radio generally operates at longer range than AM radio, however it's
> >> limited to line-of-sight. However, when you're 40,000 feet up you can
> >> "see"
> >> a lot of transmitters hence the FM signals.
> >>
> >> Cheers,
> >> Geoff Glave
> >> Vancouver, Canada
> >>
> >>
> > > I reckon you just answered the wrong question !!
> > >
> > > The reason A.M. radio can not be received in a plane is that it is a
> > > Faraday
> > > cage to the (lower frequency) A.M
> > > frequencies, whereas the VHF frequencies can just about get through the
> > > windows.
> > >
> > > There may be a bit of frequency / range issue as well but top band and
80
> > > mtrs
> > > gets across the pond so
> > > I don't think this is the issue here...
> > >
> > > Nick
> > >
> > >
>
>

# 3490. Re: Strange question about SWR on HV lines

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-12 02:36:53 UTC
From: kelly@dvol.com
Message-ID: <1102819012.999942.284410@c13g2000cwb.googlegroups.com>
Source record: 85386

ON5MJ wrote:
> Hi there,
>
> A friend of mine asks what happens on high voltage distribution lines
about
> SWR at the distribution frequency (50/60 Hz). I'm stuck.
>
> I understand that HV generators/transformers behave like voltage
sources and
> not power sources. This means that conjugate impedances don't apply
here but
> what about the existence of SWR on those kind of lines and the
possible
> consequences on very long lines.
>
> Anyone has an idea ?

I understand that excessive SWRs on the long-haul transmission lines
have brought entire grids down.

>> 73 de ON5MJ - Jacques.

w3rv

# 3491. Re: FS 8 pill Linear

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-12 02:52:37 UTC
From: N7ZZT - Eric Oyen <n7zzt@127.0.0.1>
Message-ID: <VnOud.12270$NQ6.2470@fed1read03>
Source record: 85388
Cross-posted to: rec.radio.cb,rec.radio.amateur.policy,rec.radio.amateur.antenna,alt.ham-radio.vhf-uhf,rec.radio.amateur.misc

Ed Price wrote:

> 
> 
> Assuming those sentiments are not forged, it explains why WA3MOJ has
> almost 1400 look-ups at QRZ. I guess everyone can't imagine how a
> supposedly bright guy could be such an ass.
> 
> Ed
> wb6wsn

ed,
it isn't hard at all. in fact, I can also be an ass if I really try hard.
most of the time though, its a simple matter of:
1. forgeries
2. someones buttons getting pushed a little too frequently
3. other personal "considerations"
4. just venting.

all in all though, it seems to me that some folks just have a harder time
trying to get along than others.

my $0.02 worth.
--
DE N7ZZT
Eric Oyen
Phoenix, Arizona
e-mail: n7zzt(at)hotmail(dot)com
the difference between intelligence and stupidity is that intelligence
has its limits.

# 3492. Re: Strange question about SWR on HV lines

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-12 02:54:07 UTC
From: Nick Kennedy <wa5bdu@yahoo.com>
Message-ID: <10rng7hftpem37a@corp.supernews.com>
Source record: 85397

I don't understand the "voltage source not power source" stuff. AC generators on a grid are certainly both.

Impedance matching a generator to the load would be a bad idea, as it would result in losses internal to the generator equal to the delivered power. In the case of a generator near to my heart, that would be half a gigawatt. (Actual losses are in the megawatt range.)

I haven't heard of SWR being a consideration on a power transmission line. A wavelength at 60 Hz is about 3,000 miles, if I did the math right. There's certainly that much interconnected grid in the USA, but the system is distributed. It's like a big bus with hundreds of generators spread along it, along with even more load connections. Each station generates in phase with the voltage that happens to be present at its location.

I suppose if you had an isolated generator hundreds (or thousands) of miles from its load, standing waves would exist. I'm not sure how (or if) they would be counteracted.

73--Nick, WA5BDU

"ON5MJ" <my_call_sign@skynet.be> wrote in message
news:41bb7597$0$7822$ba620e4c@news.skynet.be...
> Hi there,
>
> A friend of mine asks what happens on high voltage distribution lines
about
> SWR at the distribution frequency (50/60 Hz). I'm stuck.
>
> I understand that HV generators/transformers behave like voltage sources
and
> not power sources. This means that conjugate impedances don't apply here
but
> what about the existence of SWR on those kind of lines and the possible
> consequences on very long lines.
>
> Anyone has an idea ?
>
> 73 de ON5MJ - Jacques.
>
>

## 3493. Re: AM radio reception inside passenger planes?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-12 03:10:30 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <FEOud.28385$Af.1868@fed1read07>
Source record: 85389
Cross-posted to: rec.travel.air,rec.radio.amateur.antenna,sci.electronics.equipment

"Some Guy" <Some@guy.com> wrote in message news:41BB8C6A.FD42C1E7@guy.com...
> What a load of horse shit.

Yes, you are a wholesale distributor. Further, you are a loud-mouthed,
egocentric nitwit with a knowledge of physics equivalent to a smart gerbil.
You should be allowed on an aircraft only as freight.

Ed
wb6wsn

# 3494. Re: Browser

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-12 03:13:20 UTC
From: K7MEM <k7mem@myrealbox.com>
Message-ID: <cpgd0h$fm5@cui1.lmms.lmco.com>
Source record: 85391

Bob Miller wrote:
> On Sat, 11 Dec 2004 05:52:58 -0700, K7MEM <k7mem@myrealbox.com> wrote:
>
>
>>David G. Nagel wrote:
>
>
>>
>>But, in the end, I don't have many complaints about XP and IE. I wish
>>IE had a popup blocker like Netscape. The popups do get through, but
>>I have never had a problem with throwing them away as soon as they
>>pop up. I do highly recommend Netscape. I have found that it renders
>>everything very closely to IE and FireFox. Some minor differences but
>>nothing great.
>
>
> FYI, I have IE6, with Service Pack 2 (for XP Home Edition), and that
> includes a Microsoft pop-up blocker. It works better than StopZilla's
> blocker, and it's free.
>
> Bob
> k5qwg

I also have IE6, but I run XP Pro with Service Pack 2. I have not found that the Microsoft pop-up blocker is better. I hit a site, a couple of months ago. Before I connected, my counter was around 900 popups blocked. The next time I looked at it, it was 9,000 popups blocked. I didn't even notice a glitch. This was with Netscape. With IE, I would not have been so lucky.

IE has a lot of good points and is the most used browser. I develop my web pages using Netscape, but wouldn't publish any of them if I didn't first test them with IE. I run a monitor on my web site and IE has a 80 percent share of all browsers, but it is also the most targeted. Netscape is only running at 10-12 percent share, with all the rest filling in the last 8 percent.

Netscape is also free.

--
Martin E. Meserve - K7MEM
http://www.k7mem.com

# 3495. Re: TV antenna & cabling question ...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-12 03:18:32 UTC
From: w9gb <onw9mapsgb@no.ar.spam.rl.net>
Message-ID: <cMOud.746463$8_6.14291@attbi_s04>
Source record: 85390

"Allodoxaphobia" <bit-bucket@config.com> wrote in message
news:slrncrmake.1u64.bit-bucket@shell.config.com...
> On Fri, 10 Dec 2004 15:20:50 -0500, Dave VanHorn hath writ:
>
>>
>> I'm thinking in terms of a 6" pvc into the attic, some of the cables I
>> need
>> to pull thru are nearly an inch in diameter.
>
> Probably a thing that keeps your local fire marshal awake at night.
>
> A vertical, non-fireproof chimney (and that's what 6" PVC is) running
> vertical between floors will facilitate the growth of a small fire on
> a lower floor into one of catastrophic proportions. Use metal conduit,
> and stuff some coarse steel wool into the ends after you have run
> the cables. You, you family, and the fire marshal will sleep better.
>
> It's a Real Good Thing to even stuff something like steel wool into
> overly large holes used to pass smallish cable through sill plates.

Good point. I have used fiberglass insulation for both minimizing heat loss
and for some firestopping, however you can purchase from many electrical
contractors .. firestopping putty
(it was a red colored putty when I used it 12 years ago)

gb

# 3496. Re: AM radio reception inside passenger planes?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-12 03:23:47 UTC
From: Dave VanHorn <dvanhorn@dvanhorn.org>
Message-ID: <ULadnU-eOY8yJCbcRVn-ow@comcast.com>
Source record: 85392
Cross-posted to: rec.travel.air,rec.radio.amateur.antenna,sci.electronics.equipment

> So, in all honesty, YOU can't really say how dangerous operation of an FM
> receiver will be; but you KNOW that it's potentially harmful.

Given that the aircraft voice comms are just above the FM BCB, and the typical first IF is 10.7 MHz, it's not too hard to imagine the LO sitting right on the tower comm frequency.
You may only radiate a microwatt, but you're much closer to that antenna on the aircraft than the tower is. Inverse square law makes it very easy for you to win that contest.

This is a pointless argument though. It's a health and safety issue, and you either follow the airline's rules, or I hope they boot you off the plane (optionally, landing first for your convenience) It is just that simple.

# 3497. Re: TV antenna & cabling question ...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-12 03:24:33 UTC
From: w9gb <onw9mapsgb@no.ar.spam.rl.net>
Message-ID: <RROud.176425$5K2.149954@attbi_s03>
Source record: 85393

"Gary V. Deutschmann, Sr." <raiar@bbs.galilei.com.nospam> wrote in message
news:41bb1a8e.1190391875@news.galilei.com...
> Hi gb
>
> St. Louis County, MO (and several municipalities within same) is who
> charges additional permit fees for each pull box affixed to the studs
> or otherwise properly mounted.

OK, that helps ... they should know better .. especially with Emerson
Electric in town and that I believe the IBEW started in St. Louis !

> The wiring codes are vastly different for residential, commercial,
> schools, hospitals, etc. I know of NO allowance for Romex in any
> structure other than residential and even in residential usage,
> conduit is still required in several areas.

For residental yes, but I am seeing less of it even in residental.
Much more usage of flexible or rigid conduits ..
although metal vs PVC / composites is a religous war in many areas.

> If I recall correctly, regarding Romex A staple is required within 6
> inches of a plastic pull box or 14 inches of a clamped metal pull box.
> Some inspectors (whether code or not) will require a staple on ALL
> wiring within 6 inches of the pull box, regardless of what kind of
> wiring it is. Of course, you know how some inspectors are royal
> PITA's.

Yup, worked under one for while as summer job. Made me a damn
perfectionist. Very difficult to buy a house these days (better to close my
eyes)

> It's been over 30 years since I worked my way up the ranks and roughly
> 10 years since I worked in the field. And even then I only worked in
> residential. Everything since then was just predication work.

It's interesting that since WW2 how the amount of electrical appliances,
computer, etc. in residential and SOHO (small home offices) .. that they are
looking more like commercial every decade !

gb

# 3498. Re: Using AM/FM radios inside passenger planes?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-12 03:26:39 UTC
From: Dave VanHorn <dvanhorn@dvanhorn.org>
Message-ID: <0O6dnQISl7nGJybcRVn-tQ@comcast.com>
Source record: 85394
Cross-posted to: rec.travel.air,rec.radio.amateur.antenna,sci.electronics.equipment

> (5) Any other portable electronic device that the operator of the aircraft
> has determined will not cause interference with the navigation or
> communication system of the aircraft on which it is to be used.
> (c) In the case of an aircraft operated by a holder of an air carrier
> operating certificate or an operating certificate, the determination
> required by paragraph (b)(5) of this section shall be made by that
> operator of the aircraft on which the particular device is to be used. In
> the case of other
> aircraft, the determination may be made by the pilot in command or other
> operator of the aircraft.

So in the case of an airline (air carrier) the airline makes the
determination to allow, NOT the pilot.
In a private plane, the pilot can decide to allow.

# 3499. Re: FS 8 pill Linear

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-12 03:38:24 UTC
From: Smooth G <SmoothG@infoworks.com>
Message-ID: <e9fnr0pe2csg9fjns8sqpm40nr3uv6dnvn@4ax.com>
Source record: 85395
Cross-posted to: rec.radio.cb,rec.radio.amateur.policy,rec.radio.amateur.antenna,alt.ham-radio.vhf-uhf,rec.radio.amateur.misc

On Sat, 11 Dec 2004 09:09:46 -0600, itoldyouiamnotiamnotgeorge
<itoldyouiamnotiamnotgeorge@yahoo.comSpam> wrote:

>WA3MOJ <WA3MOJ@home.com > wrote in news:cpegt801k76@drn.newsguy.com:
>
>> In article <OQsud.38868$bP2.25120@newssvr12.news.prodigy.com>, Adair
>> Winter says...
>>>
>>>"KC8QJP" <KC8QJP@yahoo.com> wrote in message
>>>> http://tinypic.com/vvqkp
>>>>
>>>> My friend is building these in his basement. Be LOUD and PROUD!
>>>>
>>>> $500 firm.
>>>>
>>>> Contact N8WWM@arrl.net
>>>>
>>>
>>>LOL! I don't think I want to transmit thur anything that has "pills"
>>>in it.. <G>
>>>
>>>Adair
>>>
>>>
>> You fucking pussy! My 32 pill will make you sound like a mud duck!
>
>you have a 32 pill? Is your Name prozac??

No! But your is!!!

# 3500. Re: Third hand light makes a great stocking stuffer

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-12 03:44:51 UTC
From: Herbert Khaury <tiptoe@tulip.me>
Message-ID: <TZSdnUs4tIQplybcRVn-hQ@comcast.com>
Source record: 85396
Cross-posted to: pdx.forsale,rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.swap

Why? Is is NOT a helping hint? Oh yeah, the internet's #1 sport is
spitefulness. Save your piss for the "I made $50,000 with a $6 investment"
types.

--

"John P Vassel" <heckufaguy@hotmail.com> wrote in message
news:Xns95BBB193AF929heckufaguyhotmailcom@216.196.97.142...
> "W7RBR" <rbriver@yahoo.com> wrote in
news:libud.544523$D%.421348@attbi_s51:
>
> > Happy Holidays!
> > W7RBR
> >
>
> Did you not think we'd put your call signs address within miles of this
> companys address?
>
> I dont really mind a nice product being pointed out, but I do take offense
> to you posting your own commercial business as 'a helping hint'.
>
> john

# 3501. Re: FS 8 pill Linear

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-12 04:01:40 UTC
From: robert casey <wa2ise@ix.netcom.com>
Message-ID: <EoPud.852$Yj4.341@newsread3.news.atl.earthlink.net>
Source record: 85398
Cross-posted to: rec.radio.cb,rec.radio.amateur.policy,rec.radio.amateur.antenna,alt.ham-radio.vhf-uhf,rec.radio.amateur.misc

WA3MOJ wrote:

> In article <31v3qeF3fkpcmU1@individual.net>, KC8QJP says...
>
>>http://tinypic.com/vvqkp
>>
>>My friend is building these in his basement. Be LOUD and PROUD!
>>
>>$500 firm.
>>
>>Contact N8WWM@arrl.net
>>
>>
>
> My 32 pill will walk the dog on ya mud duck!
>
>

And splatter the spectrum and RFI any over the
air TV reception..... These things are not
known for spectral purity.

# 3502. Re: FS 8 pill Linear

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-12 04:02:17 UTC
From: U Know Who <AKC-M{AnonymousKeyboardCowardsMaster}@not-here.com>
Message-ID: <dpPud.21771$yf.11109@fe2.texas.rr.com>
Source record: 85399
Cross-posted to: rec.radio.cb,rec.radio.amateur.policy,rec.radio.amateur.antenna,alt.ham-radio.vhf-uhf,rec.radio.amateur.misc

"itoldyouiamnotiamnotgeorge" <itoldyouiamnotiamnotgeorge@yahoo.comSpam>
wrote in message news:Xns95BCD6854931E1234567890@216.196.97.136...
> "Ed Price" <edprice@cox.net> wrote in
> news:C9Lud.24460$Af.19281@fed1read07:
>
>>
>> "WA3MOJ" <WA3MOJ@home.com > wrote in message
>> news:cpegt801k76@drn.newsguy.com...
>>> In article <OQsud.38868$bP2.25120@newssvr12.news.prodigy.com>, Adair
>>> Winter
>>> says...
>>>>
>>>>"KC8QJP" <KC8QJP@yahoo.com> wrote in message
>>>>> http://tinypic.com/vvqkp
>>>>>
>>>>> My friend is building these in his basement. Be LOUD and PROUD!
>>>>>
>>>>> $500 firm.
>>>>>
>>>>> Contact N8WWM@arrl.net
>>>>>
>>>>
>>>>LOL! I don't think I want to transmit thur anything that has "pills"
>>>>in it..
>>>><G>
>>>>
>>>>Adair
>>>>
>>>>
>>> You fucking pussy! My 32 pill will make you sound like a mud duck!
>>>
>>>
>>> --
>>> Young Men are delicious,
>>> Healthy, virile and strong,
>>> With smooth skin, a firm fleshy arse,
>>> And hair growing where it belongs.
>>
>>
>> Assuming those sentiments are not forged, it explains why WA3MOJ has
>> almost 1400 look-ups at QRZ. I guess everyone can't imagine how a
>> supposedly bright guy could be such an ass.
>>

>> Ed
>> wb6wsn
>
>
> Of course it is a forge these cbers are real moron's they have besmirched
> wa3moj based on assumptions and fantasy claims.

No, you need to accept the blame for that. At one point you thought it was
funny to use someone else's call, and even made it a point to perpetuate it.
Don't now attempt to make yourself appear less than culpable.

## 3503. Re: TV antenna & cabling question ...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-12 04:11:11 UTC
From: Dave VanHorn <dvanhorn@dvanhorn.org>
Message-ID: <spmdnRB8pIVWWSbcRVn-pg@comcast.com>
Source record: 85400

> Good point. I have used fiberglass insulation for both minimizing heat
> loss
> and for some firestopping, however you can purchase from many electrical
> contractors .. firestopping putty
> (it was a red colored putty when I used it 12 years ago)

Indeed. Steel wool burns rather nicely, once started.

# 3504. Re: Strange question about SWR on HV lines

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-12 04:21:55 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <vagnr0lll61ifbg7aoen05a489v0rq65th@4ax.com>
Source record: 85401

On Sat, 11 Dec 2004 20:54:07 -0600, "Nick Kennedy" <wa5bdu@yahoo.com>
wrote:

>Impedance matching a generator to the load would be a bad idea
...
>Each station generates in phase with the voltage that happens to be present at its
location.

Hi Nick,

Phase is necessarily found in Impedance. As you allow that multiple
generators share a line, they are also across the load as a load if
they do not present the right phase.

As for the "bad idea" of matching, you are appealing to Edison's old
and deliberate misreading of Thevenin. Matching does NOT require a
resistance, this is a mis-read of conjugate matching that follows the
fact (in antennas). It does not drive the need (in power delivery).
Power stations only need perform a Z Match, not a Conjugate Match.
Any form of X is sufficient to accomplish the task and they do it far
simpler through field excitation control.

Back when Edison was battling Westinghouse/Tesla in the DC vs. AC
distribution system wars; Edison tried to confuse the issue with his
munged up version of Thevenin's Theorem insisting that his competitors
would have to burn up half their power to deliver half their power.
He thus claimed his DC system to be more "efficient." New York
bankers didn't know the difference between Thevenin or Copernicus. In
fact, it was Thevenin's proof that crippled Edison in the marketplace.
The only way to cut losses was to lift potentials into the
stratosphere. Edison also had a campaign trying to prove AC was
lethal, but DC was survivable (largely true). But with a low loss
system running in the KV and no way to convert it to residential use,
the writing (about lethality) was on the wall. AC, on the other hand,
could deal with that easily.

Edison's business/technical logic would have to wait for nearly 100
years to be resurrected for the ENRON bubble to coincide with New York
banker IQ phasing.

73's
Richard Clark, KB7QHC

# 3505. Re: Strange question about SWR on HV lines

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-12 04:24:41 UTC
From: richardharrison@webtv.net
Message-ID: <2836-41BBC809-645@storefull-3251.bay.webtv.net>
Source record: 85402

Richard Clark wrote:
"---the distance was far enough to observe the effects of SWR - in exactly the same manner we observe them at HF or VHF etc."

Yes, that was anticipated.

The wavelength is a little less than 186,000 miles per second divided by 60 cycles per second, or 3100 miles per cycle approximately. The reduction in wavelength is due to the velocity factor of the transmission line. Construction determines the velocity factor.

The phase delay ib transmission over the actual distance between Hoover Dam near Las Vegas and Los Angeles is only a few degrees. For example, a 60 Hz transmission line slectrical length of 310 miles would be 1/10 wavelength or about 36 degrees. Surely noticible but not crippling.

Now, many high-voltage transmission lines are transporting d-c. The rule of thumb is that you need a kilovolt per mile of trangmission line length to get efficiency. So, hundreds of miles require hundreds of KV. At these voltages, the difference between rms and peak voltage becomes important. RMS = DC. Now, conveersion from a-c to d-c and back again is fairly easy and efficient. So, we have HV, DC power transmission. Tesla had the first laugh. Now, maybe Edison has the last laugh after a hundred years of development.

Best regards, Richard Harrison, KB5WZI

# 3506. Re: Feeding 30 Mtrs into a 40 Mtr Dipole - Losses ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-12 05:16:13 UTC
From: Gary
Message-ID: <prknr0drcpvfeh6koacg72r40eiu4rlae1@4ax.com>
Source record: 85403

On Sat, 11 Dec 2004 10:14:26 -0600, "Crazy George"
<muNnscOh@attSglPobaAl.nMet> wrote:

>You know, Gary, there is another option which no one mentioned. Add a 30M dipole under the 40M job and use the same
>feedline. You will likely have to adjust the length of the 40M wire slightly to return the VSWR to the present value,
>but you will then have a good antenna for both bands. See any number of references about actual mechanical
>construction.

Thanks for the idea George, I hadn't thought of that one. I knew the
30M into the 40 dipole wasn't the best in the world as I didn't hear
the signals on 30 that I would expect to hear but I didn't know it was
as lossy as pointed out. I'll have to give it a go this spring or
summer.

73 Gary K8IQ

# 3507. Re: Strange question about SWR on HV lines

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-12 05:25:14 UTC
From: Gary
Message-ID: <p9lnr09ikoqrcu48pr39gp0srtvtufsfie@4ax.com>
Source record: 85404

On Sun, 12 Dec 2004 04:21:55 GMT, Richard Clark <kb7qhc@comcast.net>
wrote:

>On Sat, 11 Dec 2004 20:54:07 -0600, "Nick Kennedy" <wa5bdu@yahoo.com>
>wrote:
>
>>Impedance matching a generator to the load would be a bad idea
>...
>>Each station generates in phase with the voltage that happens to be present at its
location.
>
>Hi Nick,
>
>Phase is necessarily found in Impedance. As you allow that multiple
>generators share a line, they are also across the load as a load if
>they do not present the right phase.
>
>As for the "bad idea" of matching, you are appealing to Edison's old
>and deliberate misreading of Thevenin. Matching does NOT require a
>resistance, this is a mis-read of conjugate matching that follows the
>fact (in antennas). It does not drive the need (in power delivery).
>Power stations only need perform a Z Match, not a Conjugate Match.
>Any form of X is sufficient to accomplish the task and they do it far
>simpler through field excitation control.
>
>Back when Edison was battling Westinghouse/Tesla in the DC vs. AC
>distribution system wars; Edison tried to confuse the issue with his
>munged up version of Thevenin's Theorem insisting that his competitors
>would have to burn up half their power to deliver half their power.
>He thus claimed his DC system to be more "efficient." New York
>bankers didn't know the difference between Thevenin or Copernicus. In
>fact, it was Thevenin's proof that crippled Edison in the marketplace.
>The only way to cut losses was to lift potentials into the
>stratosphere. Edison also had a campaign trying to prove AC was
>lethal, but DC was survivable (largely true). But with a low loss
>system running in the KV and no way to convert it to residential use,
>the writing (about lethality) was on the wall. AC, on the other hand,
>could deal with that easily.
>
>Edison's business/technical logic would have to wait for nearly 100
>years to be resurrected for the ENRON bubble to coincide with New York
>banker IQ phasing.
>
>73's

>Richard Clark, KB7QHC

I had never thought of the power industry having "matching" problems
until I picked up a magazine ( the New Yorker of all things ) in a
doctor's office years ago and there was a story about fluctuating
SWR's etc and what the power company did to compensate. Unfortunately
I got called in to see the Doc before I could finish the article.
Thanks for sharing some light on the subject.

Gary K8IQ

# 3508. Re: FS 8 pill Linear

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-12 05:50:24 UTC
From: Landshark <s3buell@sbcglobal.net>
Message-ID: <A_Qud.41590$6q2.11273@newssvr14.news.prodigy.com>
Source record: 85405
Cross-posted to: rec.radio.cb,rec.radio.amateur.policy,rec.radio.amateur.antenna,alt.ham-radio.vhf-uhf,rec.radio.amateur.misc

"U Know Who" <AKC-M{AnonymousKeyboardCowardsMaster}@not-here.com> wrote in
message news:dpPud.21771$yf.11109@fe2.texas.rr.com...
>
> "itoldyouiamnotiamnotgeorge" <itoldyouiamnotiamnotgeorge@yahoo.comSpam>
> wrote in message news:Xns95BCD6854931E1234567890@216.196.97.136...
>> "Ed Price" <edprice@cox.net> wrote in
>> news:C9Lud.24460$Af.19281@fed1read07:
>>
>>>
>>> "WA3MOJ" <WA3MOJ@home.com > wrote in message
>>> news:cpegt801k76@drn.newsguy.com...
>>>> In article <OQsud.38868$bP2.25120@newssvr12.news.prodigy.com>, Adair
>>>> Winter
>>>> says...
>>>>>
>>>>>"KC8QJP" <KC8QJP@yahoo.com> wrote in message
>>>>>> http://tinypic.com/vvqkp
>>>>>>
>>>>>> My friend is building these in his basement. Be LOUD and PROUD!
>>>>>>
>>>>>> $500 firm.
>>>>>>
>>>>>> Contact N8WWM@arrl.net
>>>>>>
>>>>>
>>>>>LOL! I don't think I want to transmit thur anything that has "pills"
>>>>>in it..
>>>>><G>
>>>>>
>>>>>Adair
>>>>>
>>>>>
>>>> You fucking pussy! My 32 pill will make you sound like a mud duck!
>>>>
>>>>
>>>> --
>>>> Young Men are delicious,
>>>> Healthy, virile and strong,
>>>> With smooth skin, a firm fleshy arse,
>>>> And hair growing where it belongs.
>>>
>>>
>>> Assuming those sentiments are not forged, it explains why WA3MOJ has

>>> almost 1400 look-ups at QRZ. I guess everyone can't imagine how a
>>> supposedly bright guy could be such an ass.
>>>
>>> Ed
>>> wb6wsn
>>
>>
>> Of course it is a forge these cbers are real moron's they have besmirched
>> wa3moj based on assumptions and fantasy claims.
>
> No, you need to accept the blame for that. At one point you thought it was
> funny to use someone else's call, and even made it a point to perpetuate
> it. Don't now attempt to make yourself appear less than culpable.

Won't happen Randy, it's his call. That's why he sent
a complaint to my ISP when I used WA3MOJ@AOL.COM
for a screen nic. LMAO!!!! spin another yarn George.

Oh, this wasn't him either, was it.............. LMAO!!!!

From: "No Fear" <nof...@home.comm>
Newsgroups: rec.radio.cb
References: <3327-3BB7D3C2-92@storefull-146.iap.bryant.webtv.net>
<9pbgml$gsuhm$1@ID-26551.news.dfncis.de>
<Vzhu7.67536$5A3.25250972@news1.rdc2.pa.home.com>
<9pci75$fq242$1@ID-26551.news.dfncis.de>
Subject: Re: predator 10k site url
Lines: 60
Organization: AKC
X-Priority: 3
X-MSMail-Priority: Normal
X-Newsreader: Microsoft Outlook Express 6.00.2600.0000
X-MimeOLE: Produced By Microsoft MimeOLE V6.00.2600.0000
Message-ID: <Mgsu7.68301$5A3.25741449@news1.rdc2.pa.home.com>
Date: Tue, 02 Oct 2001 23:41:32 GMT
NNTP-Posting-Host: 24.180.184.171
X-Complaints-To: a...@home.net
X-Trace: news1.rdc2.pa.home.com 1002066092 24.180.184.171 (Tue, 02 Oct 2001
16:41:32 PDT)
NNTP-Posting-Date: Tue, 02 Oct 2001 16:41:32 PDT

Oh thats funny a few months back you said you sold everything I guess your
just a part timer now?

WA3MOJ

I especially like Randy, how the amateur operator WA3MOJ posts amps for sale
himself.............. LMAO!!!!

From: "Helmut Sweenie" <h...@hone.con>
Newsgroups: rec.radio.cb
Subject: For Sale Very Large Amp

Lines: 5
X-Priority: 3
X-MSMail-Priority: Normal
X-Newsreader: Microsoft Outlook Express 5.50.4133.2400
X-MimeOLE: Produced By Microsoft MimeOLE V5.50.4133.2400
Message-ID: <tWUe6.26783$49.4583294@news1.rdc2.pa.home.com>
Date: Sat, 03 Feb 2001 14:52:09 GMT
NNTP-Posting-Host: 24.180.184.171
X-Complaints-To: a...@home.net
X-Trace: news1.rdc2.pa.home.com 981211929 24.180.184.171 (Sat, 03 Feb 2001 06:52:09 PST)
NNTP-Posting-Date: Sat, 03 Feb 2001 06:52:09 PST
Organization: Exc...@Home - The Leader in Broadband http://home.com/faster

For sale very large amp capable of 10 kw runs on 220 needs a big driver to power it..
Pick up or delivery will consider trades ..will be on air until i remove it

# 3509. Re: I PASS MY TEST ALSO THE EASY WAY.me a troll no way

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-12 06:08:57 UTC
From: wildboy74@webtv.net
Message-ID: <11395-41BBE079-50@storefull-3273.bay.webtv.net>
Source record: 85406

i just wanna see how many people i could fool only 8 not bad lol
haaa u stuck up hams see you on 28.000 mhz with my export cb
plus my amp

# 3510. Re: Plotting Package Available for SmartSmith

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-12 06:15:53 UTC
From: w9dmk@crosslink.net
Message-ID: <41bbe142.58828951@news.crosslink.net>
Source record: 85407

I found a bug in the Plotting Package. Anyone who has already
downloaded it should return to the site and download

http://www.qsl.net/w9dmk/SWDownloads/NetworkProcessor2.zip

It's a small download of about 45 kB and is to be unzipped in the same
application folder as SmartSmith 1.6.3

Thanks,

Bob, W9DMK, Dahlgren, VA
http://www.qsl.net/w9dmk

# 3511. Re: Simple, cheap antenna for portable use.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-12 07:25:23 UTC
From: Ms_Squiggles <send_pdreeves_no_spam@bigpond.net.au>
Message-ID: <pan.2004.12.12.23.25.05.581870@bigpond.net.au>
Source record: 85408

On Sat, 11 Dec 2004 06:50:39 +1100, Graeme wrote:

> Hi All..
> I'm wishing to operate portable from a mountain top location
> which has excellent 360 degree unobstructed views, and would be ideal for
> the odd weekend of amateur radio operation when I get the chance. Problem
> is, there are no trees at that location to use as mounting points for wire
> antennas. I'm considering building a vertical antenna using aluminium tubing
> that I could telescope together to a height of approx 16 to 17 feet. This
> would allow me to tune the antenna to any band between 14MHz and 29MHz by
> adjusting the length, and use my cars body as a ground plane. Problem is, I
> have no idea how to afix a 16 foot vertical antenna to the top of my little
> four cylinder car!
> Can anyone suggest a simple way to do this with a minimum cash outlay?
> I'd also be interested to hear of other suitable antenna ideas.
> I'm very keen to get back on the bands after an absence of several years,
> and operation from home is out of the question.
>
> 73 de Graeme.....

A couple of ideas....

Mount one of those 'ski bar' roof racks on your car and clamp the antenna
mounting onto that.

If your car has a tow bar fitted, you can use this as a great mounting
point for a short tower made from telescoping metal tube, and string a
long wire or sloper dipole from that (in the form of an inverted V). Use a
tent pole with 2 guy ropes at the outer ends of the antenna. All these
bits should fit easily into the boot of the car.

Have fun, and be careful of those thunderstorms when your on top of the
hill!

Pip

# 3512. Re: Strange question about SWR on HV lines

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-12 07:46:11 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <rdtnr0ht2qnahpb83lp9qtmptkitglco20@4ax.com>
Source record: 85409

On Sat, 11 Dec 2004 22:24:41 -0600, richardharrison@webtv.net (Richard Harrison) wrote:

>So, we have HV, DC power transmission. Tesla
>had the first laugh. Now, maybe Edison has the last laugh after a
>hundred years of development.

Hi Richard,

Actually, the ironic testament to power distribution (back then, 100 years ago) was found in Italy where they had a wire rope pulley system 20 miles long that was over 90% efficient.

73's
Richard Clark, KB7QHC

# 3513. Re: Strange question about SWR on HV lines

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-12 08:15:48 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cpgunk$hnh$1@hercules.btinternet.com>
Source record: 85410

The VERY first thing to remember about power transmission is that generators must NOT be conjugate matched to loads.

We CANNOT have half the power dissipated in the generator!
===
Reg.

# 3514. Re: AM radio reception inside passenger planes?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-12 09:12:34 UTC
From: Charles Newman <charlesnewman1@comcast.net.spammers.will.be.shot.on.sight>
Message-ID: <e-mdnfCD_qEbliHcRVn-tA@comcast.com>
Source record: 85411
Cross-posted to: rec.travel.air,rec.radio.amateur.antenna,sci.electronics.equipment

"Ed Price" <edprice@cox.net> wrote in message
news:ymKud.23648$Af.3577@fed1read07...
>
> "Ian Jackson" <IanJacksonRemoveThisBit@g3ohx.demon.co.uk> wrote in message
> news:qQ5qidE8P1uBFw7f@g3ohx.demon.co.uk...
> > In message <piIud.4676$ve.1869@fed1read06>, Ether Hopper <EH@skip.net>
> > writes
> >>No one has mentioned that in many cases you need the pilot's permission
to
> >>operate a radio or other electronic device for that matter on a
commercial
> >>airliner. That includes AM/FM radios.
> >>
> >>Radio emissions may screw up the plane's avionics.
> >
> > Virgin included the use of radio receivers in their 'permitted list'
about
> > 3 years ago. However, I do wonder about the use of the FM broadcast band
> > because the LO (tuned freq + 10.7MHz) can land up right on top of
> > something important in the ATC band.
> > Ian.

Virgin is a British Airline, so they can permit the operation of radios
once the plane leaves US airspace. Once the plane leaves US
airspace, it is no longer subject to FAA regulations.

# 3515. Re: Strange question about SWR on HV lines

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-12 10:02:46 UTC
From: ON5MJ <my_call_sign@skynet.be>
Message-ID: <41bc1654$0$9314$ba620e4c@news.skynet.be>
Source record: 85412

Thank you gentlemen for all your replies,

To make a summary:

The discussion with my friend started about the difficulty in Sweden to sell electricity to continental Europe due to long haul lines and supposedly SWR on those lines. I didn't understand this last point.

Before questioning you, my thinking was (back from the university 30 years ago but a bit confused now)

1. generators on high voltage lines are "voltage source" rather than "power source" because the purpose of electricity transportation is to deliver a voltage to users which is as stable as possible. That is the definition of a voltage source. If the purpose would be to deliver the maximum of power (I mean to be a "power source" = gives a power as stable as possible) the power dissipated in the generator would be the same than the one delivered to the loads. By definition, loads vary all the time but voltage must not vary accordingly. RF amplifiers are power sources, electricity distribution uses voltage sources instead.

2. Following the definition, SWR is the ratio between load impedance to line impedance. In grids, loads are low impedance and transmission lines are high impedance. This means that SWR must be very high in any case for grids.

3. Being a voltage source, a HV generator doesn't need (even must not) to be conjugate matched to the line, only the reactance must be canceled. Reactive power at the load is theoratically not paying load as this power is not real power at the generator but reactive load contributes to encrease line current (not in phase of course). As an encrease of line current contributes to voltage loss on the line, this contributes to line power loss and this is paying load. This is why reactive load must be avoided and canceled by capacitors (because loads are usually inductive).

Now this doesn't explain what is the effect of SWR on grids.

So I would like to question some people replying to me:

1. W3RV - "I understand that excessive SWRs on the long-haul transmission lines have brought entire grids down"

Do you have an idea why it happened ?

2. KB5WZI - "Now, many high-voltage transmission lines are transporting d-c.". - "... the difference between rms and peak voltage becomes important. RMS = DC."

I am not that aware of this but it makes sense that efficiency of AC/DC + DC/AC conversion must be higher than the one of pure AC transmission. Can you explain the difference between RMS and peak voltage in this case ?

73 de ON5MJ - Jacques.

# 3516. Re: FS 8 pill Linear

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-12 12:17:20 UTC
From: Steveo <moparholic@hotmail-nospam.com>
Message-ID: <20041212071720.617$yH@newsreader.com>
Source record: 85413
Cross-posted to:
alt.dogie.is.an.idiot,rec.radio.cb,rec.radio.amateur.policy,rec.radio.amateur.antenna,alt.ham-radio.vhf-uhf,rec.radio.amateur.misc

itoldyouiamnotiamnotgeorge <itoldyouiamnotiamnotgeorge@yahoo.comSpam>
wrote:
> "Ed Price" <edprice@cox.net> wrote in
> news:C9Lud.24460$Af.19281@fed1read07:
>
> >
> > "WA3MOJ" <WA3MOJ@home.com > wrote in message
> > news:cpegt801k76@drn.newsguy.com...
> >> In article <OQsud.38868$bP2.25120@newssvr12.news.prodigy.com>, Adair
> >> Winter
> >> says...
> >>>
> >>>"KC8QJP" <KC8QJP@yahoo.com> wrote in message
> >>>> http://tinypic.com/vvqkp
> >>>>
> >>>> My friend is building these in his basement. Be LOUD and PROUD!
> >>>>
> >>>> $500 firm.
> >>>>
> >>>> Contact N8WWM@arrl.net
> >>>>
> >>>
> >>>LOL! I don't think I want to transmit thur anything that has "pills"
> >>>in it..
> >>><G>
> >>>
> >>>Adair
> >>>
> >>>
> >> You fucking pussy! My 32 pill will make you sound like a mud duck!
> >>
> >>
> >> --
> >> Young Men are delicious,
> >> Healthy, virile and strong,
> >> With smooth skin, a firm fleshy arse,
> >> And hair growing where it belongs.
> >
> >
> > Assuming those sentiments are not forged, it explains why WA3MOJ has
> > almost 1400 look-ups at QRZ. I guess everyone can't imagine how a
> > supposedly bright guy could be such an ass.

> >
> > Ed
> > wb6wsn
>
> Of course it is a forge these cbers are real moron's they have besmirched
> wa3moj based on assumptions and fantasy claims.
>
If CBer's are morons, why is rec.radio.cb the ONLY group you post to
other than cross posts, WA3MOJ? You need the attention you can't get
at home, punk.

# 3517. Re: Strange question about SWR on HV lines

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-12 12:17:46 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cphcta$lag$1@titan.btinternet.com>
Source record: 85414

The following details will give you some idea of what you are waffling
about.

A 2-WIRE, WIDE-SPACED, POWER TRANSMISSION LINE.

At a frequency of 60 Hz

Length = 100 miles.
Wire diameter = 1 inch.
Wire spacing = 10 feet.

Nominal RF Zo = 650 ohms.
Actual Zo at 60 Hz = 650 ohms.
Angle of Zo = -2.6 degrees.

Velocity factor = 0.99
1/4-wavelength = 767 miles.
Resonant Q at 60 Hz = 11

Inductance = 3.54 milli-henrys per mile.
Capacitance = 0.00836 micro-farads per mile.

FOR A LOAD OF 500 OHMS -

Input impedance = 520 + j*51
Line loss = 0.1 dB.
Power Loss in line = An economical 2.3 percent.

Reflection coefficient = 0.133
Angle of reflection coefficient = 170 degrees.
VSWR = 10.5

Economics rules the roost at power frequencies.

The normal transmission voltage on such a line is measured in terms of
100,000 volts.

Note that, with a resonant Q of 11, should an open-circuit fault occur at a
distance of 1/4-wavelength the voltage at the fault can rise to a million
volts or more. Electrical power engineers have far worse problems than mere
radio engineers have on the popular 40m band. They too are concerned with
reflection coefficients and SWR. ;o)

But the technicalities were all exactly sorted out in the Victorian age by
the young, self-educated, recluse and hard-of-hearing genius like
eethoven - Oliver Heaviside who was derided by the old-wives and silly guru
university professors of his age.

The above technical details, and more, can be computed and studied, from power frequencies up to UHF, by downloading, practical, easy-to-use programs RJELINE2 or 3 from the following website. Download in a few seconds, not zipped-up, and run immediately under common-or-garden DOS/Windows.
---
.....
Regards from Reg, G4FGQ
For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp
.....

## 3518. Re: Simple, cheap antenna for portable use.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-12 12:42:54 UTC
From: conconemail@libero.it
Message-ID: <1102855373.971873.87730@z14g2000cwz.googlegroups.com>
Source record: 85415

Look here there are some portable vertical antennas

http://www.dxzone.com/catalog/Antennas/Vertical/index.shtml

or search for portable too :)
http://www.dxzone.com/cgi-bin/dir/search.cgi?query=portable

73

# 3519. Re: Strange question about SWR on HV lines

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-12 13:29:53 UTC
From: ON5MJ <my_call_sign@skynet.be>
Message-ID: <41bc47b6$0$13464$ba620e4c@news.skynet.be>
Source record: 85416

Thank you Reg,

I have downloaded your programs (what's the difference between version 3 and 4 ?) and put the figures in. Seems to be OK excepted that I was surprised to see the line loss is so huge. On the other hand how to take into account the spreading of sources and loads ? Not that easy, is it ?

> Note that, with a resonant Q of 11, should an open-circuit fault occur at a distance of 1/4-wavelength the voltage at the fault can rise to a million volts or more.

How do you compute this ?

73 de ON5MJ - Jacques.

# 3520. Re: Strange question about SWR on HV lines

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-12 13:35:01 UTC
From: ON5MJ <my_call_sign@skynet.be>
Message-ID: <41bc48e9$0$25902$ba620e4c@news.skynet.be>
Source record: 85417

Thank you Reg,

I have downloaded your programs (what's the difference between version 3 and 4 ?) and put the figures in. Seems to be OK excepted that I was surprised to see the line loss is so huge. On the other hand how to take into account the spreading of sources and loads ? Not that easy, is it ?

> Note that, with a resonant Q of 11, should an open-circuit fault occur at a distance of 1/4-wavelength the voltage at the fault can rise to a million volts or more.

How do you compute this ?

73 de ON5MJ - Jacques.

# 3521. Re: Strange question about SWR on HV lines

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-12 13:44:17 UTC
From: "M. J. Powell" <mike@DeLeTe.pickmere.demon.co.uk>
Message-ID: <2LbmLJJxsEvBFwAN@pickmere.demon.co.uk>
Source record: 85418

In message <41bb7597$0$7822$ba620e4c@news.skynet.be>, ON5MJ
<my_call_sign@skynet.be> writes
>Hi there,
>
>A friend of mine asks what happens on high voltage distribution lines about
>SWR at the distribution frequency (50/60 Hz). I'm stuck.
>
>I understand that HV generators/transformers behave like voltage sources and
>not power sources. This means that conjugate impedances don't apply here but
>what about the existence of SWR on those kind of lines and the possible
>consequences on very long lines.

The fact that the terminal voltage on a power line can be higher than
the sending voltage has been known for a very long time. Google for the
'Ferranti Effect'.

Mike
M.J.Powell

# 3522. Re: Browser

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-12 15:05:03 UTC
From: Topaz305RK <k7sam@arrl.net>
Message-ID: <4OWdndK5o-8pwCHcRVn-tg@vnet-inc.com>
Source record: 85419

Thank You

Now if only some of the other folks would listen

# 3523. Re: I PASS MY TEST ALSO THE EASY WAY.me a troll no way

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-12 15:10:29 UTC
From: Bob <bob@telnet.com>
Message-ID: <EbZud.225946$HA.137827@attbi_s01>
Source record: 85420

I think this jerks email address is wildboy74@webtv.net .
"g g" <wildboy74@webtv.net> wrote in message
news:11395-41BBE079-50@storefull-3273.bay.webtv.net...

> i just wanna see how many people i could fool only 8 not bad lol
> haaa u stuck up hams see you on 28.000 mhz with my export cb
> plus my amp
>

# 3524. Re: Using AM/FM radios inside passenger planes?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-12 15:39:37 UTC
From: Radio Dawg <RD@radiod.net>
Message-ID: <ADZud.4890$ve.2132@fed1read06>
Source record: 85421
Cross-posted to: rec.travel.air,rec.radio.amateur.antenna,sci.electronics.equipment

That is what it says

But the average passenger wouldn't know the airline policies.
If so informed with written material, most won't read them anyway.

The pilot and flight attendants should know-- so asking is the reasonable
thing to do.

I queried several Airline pilots I know and they were all aware of their
Airline policies and stated they can't give permission but could state the
Airline policies and do so. AM/FM radios, GPS, FRS, GMRS, cell phones, Ham
radios and other devices were included as no no's on their Airlines.

Also Flight attendants are alerted to instruct passengers not to use certain
portable electronic devices so listed in their airline policies.

Yeah I know we are beating this thread to pieces, but maybe some readers
will desist in using a $10 Chinese radio that spews RFI all over the
aircraft.

Yes there is room for technical argument as how dangerous some devices are.
But the airlines have made their decisions based on the FAA regs.

Case closed

--
ID with held to protect the innocent

"Dave VanHorn" <dvanhorn@dvanhorn.org> wrote in message
news:0O6dnQISl7nGJybcRVn-tQ@comcast.com...
>> (5) Any other portable electronic device that the operator of the
>> aircraft has determined will not cause interference with the navigation
>> or communication system of the aircraft on which it is to be used.
>> (c) In the case of an aircraft operated by a holder of an air carrier
>> operating certificate or an operating certificate, the determination
>> required by paragraph (b)(5) of this section shall be made by that
>> operator of the aircraft on which the particular device is to be used. In
>> the case of other
>> aircraft, the determination may be made by the pilot in command or other
>> operator of the aircraft.
>
> So in the case of an airline (air carrier) the airline makes the
> determination to allow, NOT the pilot.
> In a private plane, the pilot can decide to allow.
>
>

>

# 3525. Re: AM radio reception inside passenger planes?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-12 15:44:04 UTC
From: Wes Stewart <n7ws_@_yahoo.com>
Message-ID: <m9nor098q7pu4iskq3j18kub6q395br04h@4ax.com>
Source record: 85322
Cross-posted to: rec.travel.air,rec.radio.amateur.antenna,sci.electronics.equipment

On Sat, 11 Dec 2004 22:23:47 -0500, "Dave VanHorn"
<dvanhorn@dvanhorn.org> wrote:

|
|> So, in all honesty, YOU can't really say how dangerous operation of an FM
|> receiver will be; but you KNOW that it's potentially harmful.
|
|Given that the aircraft voice comms are just above the FM BCB, and the
|typical first IF is 10.7 MHz, it's not too hard to imagine the LO sitting
|right on the tower comm frequency.
|You may only radiate a microwatt, but you're much closer to that antenna on
|the aircraft than the tower is. Inverse square law makes it very easy for
|you to win that contest.

Correct. Let me offer a slightly different but illustrative example.

Since this is cross-posted to some non-ham groups, bear with me. In
the 1960's I operated my amateur station on the two-meter (144 MHz)
band using several hundred watts of AM and directional antennas.

I'm in Tucson where we have both a commercial airport and D-M AFB. An
acquaintance of mine, also a ham, was the FAA tower chief at Tucson
International.

One day he calls me on the phone and says that the tower guys at D-M,
knowing he was a ham, called him first rather than the FCC, to report
that I was interfering with their tower communications.

To make an involved detective story short, it turned out that another
ham, who lived just outside the AFB was using a Heathkit "Twoer". The
Twoer used a super-regenerative receiver and was picking up my signal
and re-radiating it on the tower frequencies. I was getting blamed
for the other guy's illegal transmissions.

Considering that this technology is probably used in more receivers
today than any other type (garage door openers, computer wireless
links, etc.) if I'm flying, I hope they are all turned off.

|
|This is a pointless argument though. It's a health and safety issue, and
|you either follow the airline's rules, or I hope they boot you off the plane
|(optionally, landing first for your convenience) It is just that simple.
|

# 3526. Re: I PASS MY TEST ALSO THE EASY WAY.me a troll no way

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-12 16:19:28 UTC
From: Da-man <Socialwork@sucks.com>
Message-ID: <be_ud.12210$Ae.6049@newsread1.dllstx09.us.to.verio.net>
Source record: 85323

"Bob" <bob@telnet.com> wrote in message
news:EbZud.225946$HA.137827@attbi_s01...
>I think this jerks email address is wildboy74@webtv.net .
> "g g" <wildboy74@webtv.net> wrote in message
> news:11395-41BBE079-50@storefull-3273.bay.webtv.net...
>
>
>
>> i just wanna see how many people i could fool only 8 not bad lol
>> haaa u stuck up hams see you on 28.000 mhz with my export cb
>> plus my amp
>>
>
>

Typical ass hole! Yep, we'll see you on 28 MHz and one day soon, perhaps in the FCCs list of those busted for $7 grand - too! Then we'll see who laughs hardest. You know the old saying, those who laugh last, laugh hardest.

I hope I DO hear you. I would love to be the one to be involved in busting your ass. So, go for it! Talk away. The more you talk, the better chances we'll bust your ass. As for being stuck up, yep... it will be your amp - up your ass. You think you'll get away with it. Truth is, illegal ops stand out like sore thumbs. VERY EASY to spot. AND FIND. Times a ticking - boy.

DM

# 3527. Re: TV antenna & cabling question ...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-12 16:51:48 UTC
From: Allodoxaphobia <bit-bucket@config.com>
Message-ID: <slrncrotp3.1jce.bit-bucket@shell.config.com>
Source record: 85324

On Sat, 11 Dec 2004 23:11:11 -0500, Dave VanHorn hath writ:
>
>> Good point. I have used fiberglass insulation for both minimizing heat
>> loss and for some firestopping, however you can purchase from many
>> electrical contractors .. firestopping putty
>> (it was a red colored putty when I used it 12 years ago)
>
> Indeed. Steel wool burns rather nicely, once started.

Kewl, I had never heard of firestopping putty. I assume/hope it can
be easily dug out when/if you need to fish new cables. I think I'd
like it, too, for it's draft blockage feature

Jonesy
--
| Marvin L Jones | jonz | W3DHJ | linux
| Gunnison, Colorado | @ | Jonesy | OS/2 __
| 7,703' -- 2,345m | config.com | DM68mn SK

# 3528. Re: Browser

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-12 16:59:45 UTC
From: Mike Coslo <mcoslo@adelphia.net>
Message-ID: <c-ednfQ98eZi5SHcRVn-2Q@adelphia.com>
Source record: 85325

Wes Stewart wrote:
> On Thu, 9 Dec 2004 23:50:02 -0500, "Hal Rosser"
> <hmrosser@bellsouth.net> wrote:
>
> |> I lost confidence in netscape when aol took it over.
> |> Try mozilla firefox (it is free)
> |> or
> |> Avant browser (also free)
> |> --- also download the free firewall (zoneAlarm) from zone labs
> |> and-- free antivirus software (AVG)
> |> and you can replace microsoft office with OpenOffice .org
> |> and if you can find some scrap wire, we can talk about a free antenna
> |> :-)
> |>
> |
> |The Avant browser is really a good one - maybe even better than Mozilla
> |Firefox
> |- Mosaic, though may not suite your needs.
> |but by all means - anything but IE
>
> As I said elsewhere, I use Firebird, predecessor to Firefox.
>
> Unfortunately, some web sites almost demand IE. The attitude is that
> since 99% of the users are using IE, that's the thing to code for. (I
> know this because I've had this discussion with my son, who is the IT
> guru for a nationwide corporation)

This will change! Where I work, we have been told to abandon Internet Exploder. I already had years ago as part of UALMPAP (usa as little Microsoft product as possible)

Between Students and Employees, that is probably only about 100,000 people. Since it is happening elsewhere too, it *will make at least some dent.

> I have IRA's at both Schwab and Vanguard. Some of their "features"
> simply will not work in anything but IE. Threats to move my money to
> the other guy if they don't fix this fall on deaf ears.

Of course, you only threatened. If you actually moved the money, and gave them that as a reason, they might start to pay attention

> Same with my credit union. For example the login page "moves" three
> times while loading in Firefox. If I start typing my login info too
> soon, the boxes move and login fails. Tech support couldn't care
> less.

As long as you still use them, they won't care.

> But these are the same guys who, although 80% of the users have a
> dial-up connection, assume that everyone has a personal T1 line to
> their server and can download their bloated pages instantly.

A few years ago, I started seeing a lot of websites that had incredibly superflous Junk on their intro pages. An example is once I needed a ne pair of skates, and I needed them quick. I wnet to the makers web pages, and the first thing it tells me is that I need to download a plug-in in order to see their site. So I download it. Then it tells me I have to restart my computer, which is a little bit of a pain. Then it bombs my computer, then after rebooting and waiting for scandisk to check and repair it, I finally get to the site again, I get to see the critical software advance that I couldn't access their site without. It was a freakin' movie of a goalie sliding across the ice! I called them and told them that I wasn't going to buy any more of their skates and told them why. 400 bucks lost for them, actually more like 800 bucks, since I was often buying skates for my kid at that time.

BTW, they ended up changing the site eventually.

- Mike KB3EIA -

# 3529. Re: Browser

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-12 17:44:29 UTC
From: Dave Bushong <db@9y.com>
Message-ID: <HoidnXy1FojjHiHcRVn-1w@adelphia.com>
Source record: 85326

Art,

There was nothing wrong with your posting. It's just in the wrong
newsgroup. I don't know how to make any more simple.

All the best, and good luck with your "cumputor",
Dave

aunwin@insightbb.com wrote:
> Dave, we all have been hit one time or another with a computor problem. One
> time many on this newsgroup got hit with a hiddious virus that upset many so
> I think you are a bit out of step on this one ,even tho you see your main
> duty as being a Net Cop.
> The fact of the matter is that the main core of premier antenna help
> contributors all posted on this subject which shows that not only do these
> members have special expertise with antennas but also have the expertise
> relative to the computor connection with respect to antennas and the like,
> and are willing to share with less ability minded people like myself.
> Remember the main core of contributors to this group are no lesser an Elmer
> to that which you pump yourself to be to give you the verbal justification
> , but I assure you that if a thread unrelated to the primary interests of
> this group
> appeared on a regular basis the initiator would either be ignored or quickly
> put into his place.
> I note that a recent poster stated he was a ham by fraudulent means but
> apparently you view his thread as more legitamate than mine which is so
> intertwined and connected to the direction that antennas are moving today
> and where I am sure you must have posted many times on this particular
> newsgroup where such programs can be executed ( I assume I have overlooked
> your antenna contributions) on a $5 Walmart calculator as to make the
> computor irrelavent to this group.
> Since you state that many readers are upset or unhappy with the lack of true
> antenna
> content of this newsgroup now would be the time for an Elmer so proficient
> as you with respect to what is "right" and what is "wrong" to start a new
> antenna newsgroup to satisfy the needs of like minded people who are more
> interested in political correctness than in technical content, of the latter
> none of which was evident in your posting that only added to the length to
> the thread without a modicom of antenna content. I think you would have a
> real hard time in attracting the
> groups membership that has such a deep knoweledge and expertise that they
> are willing to share where the content of their postings must satisfy total
> political correctness and subject to your absolute rules of what can be
> written or replied to.
> However, if all antenna questions were directed to you for a response you

> would not have the problem that you ascribe to this newsgroup and amateur
> radio most certainly would be the beneficiory in your mind of having an
> alternative.
>
> Let me just assume this is just a consequence of you having a bad day so I
> can push it all aside
> and wish you and your family a happy holiday.
> Regards
> Art
>
>
> "Dave Bushong" <db@9y.com> wrote in message
> news:2eudnc83d4qvxSbcRVn-rg@adelphia.com...
>
>>Mike Coslo wrote:
>>
>>>Dave Bushong wrote:
>>>
>>>
>>>>aunwin@insightbb.com wrote:
>>>>
>>>>
>>>>>I am finding that WindowsXP is allowing 20 cookies (plus other stuff
>>>>>) a day
>>>>>[...]
>>>>
>>>>
>>>>
>>>>HEY!!!!!!!!!!!!!!!!!
>>>>
>>>>REC . RADIO . AMATEUR . ANTENNA
>>>
>>>
>>> Yo! NetCop! Wassup?
>>>
>>> - Mike KB3EIA
>>>
>>
>>Hi Mike,
>>
>>Thanks for your followup posting, and here is Wassup.
>>
>>I'm not a "NetCop", but instead, an "Elmer". I teach new hams not to
>>stick a fork into the light socket, not to transmit on a dual-band radio
>>on band "B" when you are listening on band "A", and other embarrassing
>>things. I also teach new newsgroup posters that posting an article, and
>>then nearly 30 followups, to an antenna newsgroup, is wrong. It is
>>wrong because people who subscribe to the rec.radio.amateur.antenna
>>newsgroup have a reasonable expectation that postings here will have
>>something to do with ham radio antennas, or at least ham radio, or maybe

>>radio, or at least antennas, or maybe even CB microphones. Not cookies.
>>
>>With 40,000+ newsgroups out there, there is just no reason to post a
>>generic "help-me" message about Windows XP cookies, into a newsgroup
>>about ham radio antennas. I've been wrong before, but this time, I'm not.
>>
>>73,
>>Dave
>>KZ1O
>
>
>

## 3530. Loop Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-12 17:56:53 UTC
From: "William H. O'Hara, III" <whoohara@yahoo.com>
Message-ID: <Xns95BD83D0AA1A4AX2A3DA5M1512AODKAMO@216.196.97.142>
Source record: 85328

Does anyone have an idea regarding the affect of
a T shaped loop? I know that a circle has larger
ap then a delta loop or square loop. Would an effect
be realized with a T?

Bill
N1EY

# 3531. Re: AM radio reception inside passenger planes?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-12 17:57:22 UTC
From: TaxSrv <n3_eu@comcast.net>
Message-ID: <2YidnWP6YuJIHiHcRVn-sw@comcast.com>
Source record: 85327
Cross-posted to: rec.travel.air,rec.radio.amateur.antenna,sci.electronics.equipment

Hey folks, let's not overdo the safety aspects here, so no one panics if aboard an airliner and sees someone using a radio. I doubt any device emitting small RF will be able to make comm reception unreadable. Even if it did, there are then fallback procedures which the pilot is required to know by heart, and the pilot is even permitted to continue flight all the way to the gate without any communication at all. Believe it or not, other aircraft may not have to be vectored out of your way, or even informed about your problem. But in reality, the pilot would simply peek at the coffee-stained nav chart and dial up another controller on another freq and ATC will say another frequency to come up on, or "stay with me."

For navigation on frequencies 108.00-117.95, besides being rather strong signals, the nature of the modulation is such that interference would have to be strong and be just so, to cause navigational error. More likely there would a panel indication of an unusable signal -- because the receiver must be designed this way, and the pilot can listen to the nav audio to hear the problem. The aircraft is also in radar contact, so that if the pilot were to wander off course -- you're allowed a fairly wide margin -- ATC tells you if outside the margin or not following a clearance if given a "direct." If you can't rectify it, you simply ask for radar vectors, or switch to GPS nav, or vice versa, or clearance to go direct to another nav beacon off the nose, or GPS direct if equipped.

Now the same considerations apply to flying the approach and landing, but the pilot would rather not have to deal with potential interference to either nav or comm, especially if the airport is 1/2 mile visibility in fog. Thus, it's not too uncommon for the pilot to grant permission to use a radio device only while in cruise.

Also, ATC will be able to tell the pilot that other aircraft are not reporting a problem, a hint of possible interference from inside the cabin. But has anybody ever heard a cabin announcement during flight to turn off any devices?

Fred F.

## 3532. Re: AM radio reception inside passenger planes?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-12 18:09:28 UTC
From: Radio Dawg <RD@radiod.net>
Message-ID: <sP%ud.4935$ve.2629@fed1read06>
Source record: 85329
Cross-posted to: rec.travel.air,rec.radio.amateur.antenna,sci.electronics.equipment

Everything you have written is probably correct BUT
That is not the point -- The FAA and Airlines have regs and policies about
portable electronic equipment aboard an airliner PERIOD

And yes a sharp flight attendent did tell me to turn off a GPS unit.
--
ID with held to protect the innocent

"TaxSrv" <n3_eu@comcast.net> wrote in message
news:2YidnWP6YuJIHiHcRVn-sw@comcast.com...
> Hey folks, let's not overdo the safety aspects here, so no one panics
> if aboard an airliner and sees someone using a radio. I doubt any
> device emitting small RF will be able to make comm reception
> unreadable. Even if it did, there are then fallback procedures which
> the pilot is required to know by heart, and the pilot is even
> permitted to continue flight all the way to the gate without any
> communication at all. Believe it or not, other aircraft may not have
> to be vectored out of your way, or even informed about your problem.
> But in reality, the pilot would simply peek at the coffee-stained nav
> chart and dial up another controller on another freq and ATC will say
> another frequency to come up on, or "stay with me."
>
> For navigation on frequencies 108.00-117.95, besides being rather
> strong signals, the nature of the modulation is such that interference
> would have to be strong and be just so, to cause navigational error.
> More likely there would a panel indication of an unusable signal --
> because the receiver must be designed this way, and the pilot can
> listen to the nav audio to hear the problem. The aircraft is also in
> radar contact, so that if the pilot were to wander off course --
> you're allowed a fairly wide margin -- ATC tells you if outside the
> margin or not following a clearance if given a "direct." If you can't
> rectify it, you simply ask for radar vectors, or switch to GPS nav, or
> vice versa, or clearance to go direct to another nav beacon off the
> nose, or GPS direct if equipped.
>
> Now the same considerations apply to flying the approach and landing,
> but the pilot would rather not have to deal with potential
> interference to either nav or comm, especially if the airport is 1/2
> mile visibility in fog. Thus, it's not too uncommon for the pilot to
> grant permission to use a radio device only while in cruise.
>
> Also, ATC will be able to tell the pilot that other aircraft are not
> reporting a problem, a hint of possible interference from inside the
> cabin. But has anybody ever heard a cabin announcement during flight

> to turn off any devices?
>
> Fred F.
>

# 3533. Re: AM radio reception inside passenger planes?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-12 18:15:31 UTC
From: Dave Bushong <db@9y.com>
Message-ID: <0MadnS9_kpFYFyHcRVn-jw@adelphia.com>
Source record: 85330
Cross-posted to: rec.travel.air,rec.radio.amateur.antenna,sci.electronics.equipment

TaxSrv wrote:
> Hey folks, let's not overdo the safety aspects here, so no one panics
> [...]

Fred,

Nearly all aircraft accidents are caused by a series of unlikely events all happening together, none of which by itself would be a problem.

Would you want to add one more "unlikely event" to your next flight? Do you have life insurance?

73,
Dave

(to keep this on topic, I will say this: last week my garage door snagged the corona tip on my ATAS-120 and broke something inside the tuning section, and bent my trunk lid. A $300 mistake. Damn.)

# 3534. Re: AM radio reception inside passenger planes?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-12 18:53:55 UTC
From: Dave VanHorn <dvanhorn@dvanhorn.org>
Message-ID: <19CdneNnrZA0DiHcRVn-2g@comcast.com>
Source record: 85331
Cross-posted to: rec.travel.air,rec.radio.amateur.antenna,sci.electronics.equipment

Our club repeater also ended up interfering with the local tower.

It seems that the transmitter PLL was unstable, and "hopping" between that frequency, and ours.
We were clearly audible in their recordings.

Lest any "experts" step in and claim that you can't receive FM on an AM receiver, I'd ask them to consider what effect the passband filter of the AM receiver's IF might have on the FM signal as it deviates from side to side....

I hit the magic codes and took the repeater down, once we determined that this was indeed the source.

A re-tweak of the transmit PLL, and a stub filter cut to pass 146.730 and reject the tower frequency, cured the problem, and insured that if it ever happens again, they probably won't hear us. The tower now has our phone numbers in their books, in case there is ever another problem. The tower complimented our rapid and assertive handling of the problem in their closing letter to the FCC.

Repeater cans don't do much for signals that are far out of band.

# 3535. Re: TV antenna & cabling question ...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-12 18:54:21 UTC
From: raiar@bbs.galilei.com.nospam
Message-ID: <41bc8fc0.1285929843@news.galilei.com>
Source record: 85333

Hi gb

>OK, that helps ... they should know better .. especially with Emerson
>Electric in town and that I believe the IBEW started in St. Louis !

It was hard working in St. Louis, we have so many larger companies and
unions controlling the government, that the smaller companies have
virtually no chance of getting ahead.

>For residental yes, but I am seeing less of it even in residental.
>Much more usage of flexible or rigid conduits ..
>although metal vs PVC / composites is a religous war in many areas.

I still prefer metal myself for indoor, PVC for exposed outdoor and
underground installations.
I often use conduit even when not called for, especially in attic runs
where squirrels, etc. might some day be able to get to the wiring.
But within the closed cavity of partition walls, I see no need for
conduit, unless you are considering future additions using same.

>Yup, worked under one for while as summer job. Made me a damn
>perfectionist. Very difficult to buy a house these days (better to close my
>eyes)
Ain't that the truth!

>It's interesting that since WW2 how the amount of electrical appliances,
>computer, etc. in residential and SOHO (small home offices) .. that they are
>looking more like commercial every decade !

That's one of the reasons for so many outlets in my last home!

You may laugh at this, considering it's simple residential wiring.
But every bathroom and/or windowless room that I wired, I ran two
separate lighting branch circuits to each room(s).
If a bathroom had both ceiling lights and vanity lighting, they were
wired on separate branch circuits, so one would not be left in the
dark if one of the breakers was tripped.
Same with long hallways, every other ceiling fixture was on a separate
circuit.

I think I use more electric in my home/office alone than I do in all
the rest of the house, including the kitchen.
Color laser printers and copiers are all on dedicated circuits.
Computers are on their own dedicated circuits, then all the peripheral
components, scanners, hard drives, USB powered ports, etc. all on
another separate circuit.

The nightmare comes in trying to keep both sides of the bus balanced while keeping spikes from large motors all on one side and away from the computers.

TTUL
Gary

# 3536. Re: Loop Antenna as Triangle?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-12 18:54:22 UTC
From: raiar@bbs.galilei.com.nospam
Message-ID: <41bc93e5.1286991593@news.galilei.com>
Source record: 85332

Hi Roy

>That's interesting. In what way is the "effectiveness" of a circular
>loop decreased by changing its shape?

I ducked class that day!

TTUL
Gary

# 3537. Re: Loop Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-12 18:59:24 UTC
From: Duane Allen <computeruser@sprintmail.com>
Message-ID: <gy0vd.8875$yr1.1786@newsread3.news.pas.earthlink.net>
Source record: 85334

William H. O'Hara, III wrote:
> Does anyone have an idea regarding the affect of
> a T shaped loop? I know that a circle has larger
> ap then a delta loop or square loop. Would an effect
> be realized with a T?
>
> Bill
> N1EY

Start at an extreme case for the T. If the two conductors of the T's stem are close together, then your T loop's stem is going to act like open feedline. If the two conductors of the T's top are close together, then your T loop's top is going to act a folded dipole.

Opening parellel sides of the stem or/and the top makes the structure move towards becoming a square (rectangular) assembly.

If you keep the lower end of the stem close together and widen the top of the stem, then the T moves towards an inverted delta assembly.

Duane
N6JPO

# 3538. Re: Loop Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-12 19:01:06 UTC
From: k9sqg@aol.com
Message-ID: <20041212140106.12459.00001967@mb-m28.aol.com>
Source record: 85335

I would think such an antenna would be difficult to adjust to avoid adverse phase interactions...

# 3539. Re: AM radio reception inside passenger planes?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-12 19:05:30 UTC
From: dplatt@radagast.org
Message-ID: <10rp5jqgv86ni58@corp.supernews.com>
Source record: 85336
Cross-posted to: rec.travel.air,rec.radio.amateur.antenna,sci.electronics.equipment

>Our club repeater also ended up interfering with the local tower.
>
>It seems that the transmitter PLL was unstable, and "hopping" between that
>frequency, and ours.
>We were clearly audible in their recordings.

Ouch. That'd be categorized as a "double-plus ungood" for certain!

>Lest any "experts" step in and claim that you can't receive FM on an AM
>receiver, I'd ask them to consider what effect the passband filter of the AM
>receiver's IF might have on the FM signal as it deviates from side to
>side....

I believe the magic words are "slope detection". The resulting audio
on the AM receiver isn't great (it's often distorted) but it's
certainly there.

>I hit the magic codes and took the repeater down, once we determined that
>this was indeed the source.
>
>A re-tweak of the transmit PLL, and a stub filter cut to pass 146.730 and
>reject the tower frequency, cured the problem, and insured that if it ever
>happens again, they probably won't hear us. The tower now has our phone
>numbers in their books, in case there is ever another problem. The tower
>complimented our rapid and assertive handling of the problem in their
>closing letter to the FCC.

Well done!

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

## 3540. higher-gain eggbeater-2 omni?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-12 19:39:43 UTC
From: alanh_27@yahoo.com
Message-ID: <1102880383.658366.248710@f14g2000cwb.googlegroups.com>
Source record: 85337
Cross-posted to: rec.radio.amateur.antenna, alt.engineering.electrical, sci.physics.electromag

seek design info to put together Eggbeater-2 flavored homebrew antennas
for LEO satphone & sat-broadcast-radio service onto ships and
vehicles.... with a bit of gain. Ready & Willing to consume metal
and real estate.

# 3541. Re: AM radio reception inside passenger planes?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-12 19:40:46 UTC
From: Some Guy <Some@Guy.com>
Message-ID: <41BC9EBE.752909A7@Guy.com>
Source record: 85338
Cross-posted to: rec.travel.air,rec.radio.amateur.antenna,sci.electronics.equipment

Dave Bushong wrote:

[Dramatic generalization mode on]
> Nearly all aircraft accidents are caused by a series of unlikely
> events all happening together, none of which by itself would be
> a problem.
[Dramatic generalization mode off]

Nice sweeping piece of dis-information there buddy.

How about this: Nearly all aircraft accidents are caused by a single failure in a single component or a single failure to do something. Pitot tubes that are taped over. Fuel tanks that explode. Structural failure that causes entire pieces of fuselage to peel off while in flight. Fuel leaks that turn large jets into gliders. Cabin fires caused by the overload of a single wire powering the entertainment system. Air pressure equalization valves that bleed cabin air rendering the occupants unconscious and results in a ghost plane flying thousands of miles before crashing. Failure to de-ice. Overloading resulting in stalling upon take-off. Failure to secure cargo upon takeoff. Being struck in the fuel tank by a piece of debris on the runway kicked up by the tires. An engine ingesting a flock of birds. A shipment of improperly-disarmed oxygen generators placed in the cargo hold. Lack of proper lubrication of tail jack-screws. Tail fins that are not as strongly connected to the fuselage as they should be. Need I continue?

A series of events will surely happen AFTER any of those incidents, none of which are either unlikely or unexpected, and by and large would have no effect on the outcome.

Will the in-flight use of an FM radio EVER cause a plane to run out of fuel? Or cause a sudden ice build-up on the wings? Or blow out a tire upon landing? Or an overload of the electrical system leading to a fire? Will the feeble RF emitted by the LO even be detectable OUTSIDE the plane, where the plane's antennas are located?

If you read the various documents on the web relating to issues of in-flight use of PED's (personal electronic devices) it's clear that

1) The FAA and NTSB are either negligent or a bunch of cowards for not forcing the AIRCRAFT MANUFACTURERS to determine the level of susceptibility of their planes to PED's. Instead the issue is pawned off to the aircraft operators when logically it should be the airplane makers!

2) The use of cell phones (analog and perhaps more frequently GSM) seems to have the most influence of any PED. The next most frequent culprit seems to be laptop computers.

3) No incidence of communication failure or disruption seems to have ever been documented by a passenger's FM radio receiver.

4) MANY MANY incidences of navigation equipment errors caused by improper installation / connection of the equipment, or interference caused by one of the plane's other systems where these were first attributed to a PED.

5) Planes have to fly near high-power commercial radio and TV transmission towers. They fly through the beams of powerful radar signals. They get struck by lightning. There are those that say that for a (commercial jet) to be certified there is no way that a certified plane could be susceptible to the stray RF given off by PED's (at least PED's that are non-intentional radiators).

6) The authorities would probably not admit it, but the ban or restrictions on PED use in planes probably has more to do with insurance/liability reasons, or passenger distraction reasons, than it does for technical (interference) reasons.

PED's are here to stay. There will be more of them, and people will use them wherever they are. It makes just as much sense to ban them or perform half-ass on-board supervision on a plane for these devices as it is to ban them from cars. PED's used cars cause injury and death each year (due to driver in-attention). Instead of banning radios, phones, and entertainment systems in cars, they instead come from the factory with them installed! Where's your crusade against that situation? Where are your dire warnings here?

> Would you want to add one more "unlikely event" to your next
> flight?

Nothing caused by or brought on board by a passenger (short of alcohol, a gun, a bomb, or otherwise a strong intent to do harm) will or has ever caused anything bad to happen on a plane or to a plane. No gun ever brought on board (and there have been MANY!) has ever discharged. No can of hairspray has ever exploded in the cargo hold.

There is relatively little variety in the types, makes or models of commercial airplanes flying today. There is a high degree of uniformity in construction of these vehicles. There have been millions of flights over the past, say 20 years. There have been many hundred million passengers carried by these planes. There surely has been ample opportunity for all sorts of PED's to be used on these planes (surreptitiously or with consent). If any particular plane model (or even specific plane) had a systemic or inherent susceptibility to a PED, it would have been recognized by now.

# 3542. Re: Loop Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-12 20:13:55 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cpi8q2$6pg$1@hercules.btinternet.com>
Source record: 85339

> I would think such an antenna would be difficult to adjust to avoid
adverse
> phase interactions...

==========

On the other hand there are an equal number of advantageous interactions.

# 3543. Re: higher-gain eggbeater-2 omni?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-12 20:20:04 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <0I1vd.69276$fY.3879@bignews3.bellsouth.net>
Source record: 85340
Cross-posted to: rec.radio.amateur.antenna,alt.engineering.electrical,sci.physics.electromag

<alanh_27@yahoo.com> wrote in message
news:1102880383.658366.248710@f14g2000cwb.googlegroups.com...
> seek design info to put together Eggbeater-2 flavored homebrew antennas
> for LEO satphone & sat-broadcast-radio service onto ships and
> vehicles.... with a bit of gain. Ready & Willing to consume metal
> and real estate.
>
Gain (in one direction) means nulls (in other directions)
if you want gain - then you should specify 'in which direction' - and
proceed from there, keeping in mind a different type of antenna may be a
better solution.

---
Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.807 / Virus Database: 549 - Release Date: 12/7/2004

# 3544. Re: I PASS MY TEST ALSO THE EASY WAY.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-12 20:20:53 UTC
From: zzzpk_pkearn_class_a@multi_band_cb_is_here.eircom.es.it.net
Message-ID: <41bca800.89004503@news.iol.ie>
Source record: 85344

wildboy74@webtv.net (g g) wrote:

: ALL I DID IS MAKE UP A CALL SIGN FROM QRZ DATA BASE. WHEN YOU SEE NOT
: ON FILE. THEN YOU ARE A HAM BONE . RIGHT NOW I AM AN
: TECH.WORKING ON MY EXTRA. EXTRA. CLASS.. HAAAAA 73S FROM
: ALABAMA

fcc pse note
arrl pse note

# 3545. Re: Loop Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-12 20:27:58 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <qP1vd.69279$fY.51774@bignews3.bellsouth.net>
Source record: 85341

"William H. O'Hara, III" <whoohara@yahoo.com> wrote in message
news:Xns95BD83D0AA1A4AX2A3DA5M1512AODKAMO@216.196.97.142...
> Does anyone have an idea regarding the affect of
> a T shaped loop? I know that a circle has larger
> ap then a delta loop or square loop. Would an effect
> be realized with a T?
>

sounds like a folded dipole. - and it should act like one too.
you'll find that if you can move the 'vertical' part of the 'T' (feedpoint)
using a pully setup, that the arrangement can be used for several bands.
put a 4-1 balun at the bottom of the T.

---
Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.807 / Virus Database: 549 - Release Date: 12/7/2004

# 3546. Re: AM radio reception inside passenger planes?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-12 20:38:25 UTC
From: Henry Kolesnik <kolesnik@sbcglobal.net>
Message-ID: <5%1vd.39222$bP2.13076@newssvr12.news.prodigy.com>
Source record: 85342
Cross-posted to: rec.travel.air,rec.radio.amateur.antenna,sci.electronics.equipment

Amen!
"Some Guy" <Some@Guy.com> wrote in message news:41BC9EBE.752909A7@Guy.com...
> Dave Bushong wrote:
>
> [Dramatic generalization mode on]
>> Nearly all aircraft accidents are caused by a series of unlikely
>> events all happening together, none of which by itself would be
>> a problem.
> [Dramatic generalization mode off]
>
> Nice sweeping piece of dis-information there buddy.
>
> How about this: Nearly all aircraft accidents are caused by a single
> failure in a single component or a single failure to do something.
> Pitot tubes that are taped over. Fuel tanks that explode. Structural
> failure that causes entire pieces of fuselage to peel off while in
> flight. Fuel leaks that turn large jets into gliders. Cabin fires
> caused by the overload of a single wire powering the entertainment
> system. Air pressure equalization valves that bleed cabin air
> rendering the occupants unconscious and results in a ghost plane
> flying thousands of miles before crashing. Failure to de-ice.
> Overloading resulting in stalling upon take-off. Failure to secure
> cargo upon takeoff. Being struck in the fuel tank by a piece of
> debris on the runway kicked up by the tires. An engine ingesting a
> flock of birds. A shipment of improperly-disarmed oxygen generators
> placed in the cargo hold. Lack of proper lubrication of tail
> jack-screws. Tail fins that are not as strongly connected to the
> fuselage as they should be. Need I continue?
>
> A series of events will surely happen AFTER any of those incidents,
> none of which are either unlikely or unexpected, and by and large
> would have no effect on the outcome.
>
> Will the in-flight use of an FM radio EVER cause a plane to run out of
> fuel? Or cause a sudden ice build-up on the wings? Or blow out a
> tire upon landing? Or an overload of the electrical system leading to
> a fire? Will the feeble RF emitted by the LO even be detectable
> OUTSIDE the plane, where the plane's antennas are located?
>
> If you read the various documents on the web relating to issues of
> in-flight use of PED's (personal electronic devices) it's clear that
>
> 1) The FAA and NTSB are either negligent or a bunch of cowards for not

> forcing the AIRCRAFT MANUFACTURERS to determine the level of
> susceptibility of their planes to PED's. Instead the issue is pawned
> off to the aircraft operators when logically it should be the airplane
> makers!
>
> 2) The use of cell phones (analog and perhaps more frequently GSM)
> seems to have the most influence of any PED. The next most frequent
> culprit seems to be laptop computers.
>
> 3) No incidence of communication failure or disruption seems to have
> ever been documented by a passenger's FM radio receiver.
>
> 4) MANY MANY incidences of navigation equipment errors caused by
> improper installation / connection of the equipment, or interference
> caused by one of the plane's other systems where these were first
> attributed to a PED.
>
> 5) Planes have to fly near high-power commercial radio and TV
> transmission towers. They fly through the beams of powerful radar
> signals. They get struck by lightning. There are those that say that
> for a (commercial jet) to be certified there is no way that a
> certified plane could be susceptible to the stray RF given off by
> PED's (at least PED's that are non-intentional radiators).
>
> 6) The authorities would probably not admit it, but the ban or
> restrictions on PED use in planes probably has more to do with
> insurance/liability reasons, or passenger distraction reasons, than it
> does for technical (interference) reasons.
>
> PED's are here to stay. There will be more of them, and people will
> use them wherever they are. It makes just as much sense to ban them
> or perform half-ass on-board supervision on a plane for these devices
> as it is to ban them from cars. PED's used cars cause injury and
> death each year (due to driver in-attention). Instead of banning
> radios, phones, and entertainment systems in cars, they instead come
> from the factory with them installed! Where's your crusade against
> that situation? Where are your dire warnings here?
>
>> Would you want to add one more "unlikely event" to your next
>> flight?
>
> Nothing caused by or brought on board by a passenger (short of
> alcohol, a gun, a bomb, or otherwise a strong intent to do harm) will
> or has ever caused anything bad to happen on a plane or to a plane.
> No gun ever brought on board (and there have been MANY!) has ever
> discharged. No can of hairspray has ever exploded in the cargo hold.
>
> There is relatively little variety in the types, makes or models of
> commercial airplanes flying today. There is a high degree of
> uniformity in construction of these vehicles. There have been

> millions of flights over the past, say 20 years. There have been many
> hundred million passengers carried by these planes. There surely has
> been ample opportunity for all sorts of PED's to be used on these
> planes (surreptitiously or with consent). If any particular plane
> model (or even specific plane) had a systemic or inherent
> susceptibility to a PED, it would have been recognized by now.

# 3547. Re: Simple, cheap antenna for portable use.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-12 20:40:04 UTC
From: tonester <tonester1@cbuk.freeserve.co.uk>
Message-ID: <cpiab2$nlq$1@newsg4.svr.pol.co.uk>
Source record: 85343

Ms_Squiggles wrote:
> On Sat, 11 Dec 2004 06:50:39 +1100, Graeme wrote:
>
>
>>Hi All..
>> I'm wishing to operate portable from a mountain top location
>>which has excellent 360 degree unobstructed views, and would be ideal for
>>the odd weekend of amateur radio operation when I get the chance. Problem
>>is, there are no trees at that location to use as mounting points for wire
>>antennas. I'm considering building a vertical antenna using aluminium tubing
>>that I could telescope together to a height of approx 16 to 17 feet. This
>>would allow me to tune the antenna to any band between 14MHz and 29MHz by
>>adjusting the length, and use my cars body as a ground plane. Problem is, I
>>have no idea how to afix a 16 foot vertical antenna to the top of my little
>>four cylinder car!
>>Can anyone suggest a simple way to do this with a minimum cash outlay?
>>I'd also be interested to hear of other suitable antenna ideas.
>>I'm very keen to get back on the bands after an absence of several years,
>>and operation from home is out of the question.
>>
>>73 de Graeme.....
>
>
>
> A couple of ideas....
>
> Mount one of those 'ski bar' roof racks on your car and clamp the antenna
> mounting onto that.
>
> If your car has a tow bar fitted, you can use this as a great mounting
> point for a short tower made from telescoping metal tube, and string a
> long wire or sloper dipole from that (in the form of an inverted V). Use a
> tent pole with 2 guy ropes at the outer ends of the antenna. All these
> bits should fit easily into the boot of the car.
>
>
>
> Have fun, and be careful of those thunderstorms when your on top of the
> hill!
>
> Pip
Fishing carp poles..... very cheap very lite...long wire verticl !!!

# 3548. Re: AM radio reception inside passenger planes?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-12 20:50:18 UTC
From: Charles Newman <charlesnewman1@comcast.net.spammers.will.be.shot.on.sight>
Message-ID: <yqidnc_QoZSSMiHcRVn-2Q@comcast.com>
Source record: 85345
Cross-posted to: rec.travel.air,rec.radio.amateur.antenna,sci.electronics.equipment

"Some Guy" <Some@Guy.com> wrote in message news:41BC9EBE.752909A7@Guy.com...
> Dave Bushong wrote:
>
> [Dramatic generalization mode on]
> > Nearly all aircraft accidents are caused by a series of unlikely
> > events all happening together, none of which by itself would be
> > a problem.
> [Dramatic generalization mode off]
>
> Nice sweeping piece of dis-information there buddy.
>
> How about this: Nearly all aircraft accidents are caused by a single
> failure in a single component or a single failure to do something.
> Pitot tubes that are taped over. Fuel tanks that explode. Structural

What is a Pitot tube anyway? I have seen a switch for most aircraft
in Flight Simulator marked "Pitot Heat", what is that?

# 3549. Re: AM radio reception inside passenger planes?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-12 20:55:37 UTC
From: Dave Bushong <db@9y.com>
Message-ID: <F-qdnS38TO7RLSHcRVn-gw@adelphia.com>
Source record: 85346
Cross-posted to: rec.travel.air,rec.radio.amateur.antenna,sci.electronics.equipment

Lots of data, not much information. No cites given.

Angry crap.

Some Guy wrote:
> Dave Bushong wrote:
>
> [Dramatic generalization mode on]
>
>>Nearly all aircraft accidents are caused by a series of unlikely
>>events all happening together, none of which by itself would be
>>a problem.
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> [Dramatic generalization mode off]
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> system. Air pressure equalization valves that bleed cabin air
> rendering the occupants unconscious and results in a ghost plane
> flying thousands of miles before crashing. Failure to de-ice.
> Overloading resulting in stalling upon take-off. Failure to secure
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> fuselage as they should be. Need I continue?
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> tire upon landing? Or an overload of the electrical system leading to
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> OUTSIDE the plane, where the plane's antennas are located?
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> If you read the various documents on the web relating to issues of
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> for a (commercial jet) to be certified there is no way that a
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>
> 6) The authorities would probably not admit it, but the ban or
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> does for technical (interference) reasons.
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> use them wherever they are. It makes just as much sense to ban them
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> death each year (due to driver in-attention). Instead of banning
> radios, phones, and entertainment systems in cars, they instead come
> from the factory with them installed! Where's your crusade against
> that situation? Where are your dire warnings here?
>
>
>>Would you want to add one more "unlikely event" to your next
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>
> Nothing caused by or brought on board by a passenger (short of
> alcohol, a gun, a bomb, or otherwise a strong intent to do harm) will
> or has ever caused anything bad to happen on a plane or to a plane.

> No gun ever brought on board (and there have been MANY!) has ever
> discharged. No can of hairspray has ever exploded in the cargo hold.
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> There is relatively little variety in the types, makes or models of
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> uniformity in construction of these vehicles. There have been
> millions of flights over the past, say 20 years. There have been many
> hundred million passengers carried by these planes. There surely has
> been ample opportunity for all sorts of PED's to be used on these
> planes (surreptitiously or with consent). If any particular plane
> model (or even specific plane) had a systemic or inherent
> susceptibility to a PED, it would have been recognized by now.

## 3550. Re: AM radio reception inside passenger planes?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-12 21:02:41 UTC
From: Radio Dawg <RD@radiod.net>
Message-ID: <Rl2vd.21663$ve.14862@fed1read06>
Source record: 85348
Cross-posted to: rec.travel.air,rec.radio.amateur.antenna,sci.electronics.equipment

Pitot tube at URL;
http://www.grc.nasa.gov/WWW/K-12/airplane/pitot.html

Re Pitot Heat -- see URL:
http://www.allstar.fiu.edu/aero/PSSI.htm

Sez
The system shown employs a heated pitot tube to prevent ice formation, a
necessary feature for flight in instrument conditions.
--
ID with held to protect the innocent

>
> What is a Pitot tube anyway? I have seen a switch for most aircraft
> in Flight Simulator marked "Pitot Heat", what is that?
>
>

# 3551. Re: AM radio reception inside passenger planes?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-12 21:11:19 UTC
From: TaxSrv <n3_eu@comcast.net>
Message-ID: <M7SdnXzl7NPVLCHcRVn-1w@comcast.com>
Source record: 85347
Cross-posted to: rec.travel.air,rec.radio.amateur.antenna,sci.electronics.equipment

"Dave Bushong" wrote:

> Nearly all aircraft accidents are caused by a series of unlikely
events
> all happening together, none of which by itself would be a problem.

I'll bet there's no record of a U.S. airline accident caused by faulty navigation equipment for any reason, or at least excluding maybe the early years. General aviation, yes.

> Would you want to add one more "unlikely event" to your next
flight?

I have no problem with any airline with a flat "no" policy on this, because things do happen even if rarely. NASA gathers the PED incident data, and over a 14-year period, there have been less than 100 events, mostly in cruise, most not classed as potentially serious. The reason they were reported is because the equipment told the pilot about it, and often ATC did so too. Also, NASA has to take the pilot's word for it that the anomaly was caused by a PED.

Fred F.

# 3552. Re: Strange question about SWR on HV lines

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-12 21:14:50 UTC
From: richardharrison@webtv.net
Message-ID: <3868-41BCB4CA-28@storefull-3251.bay.webtv.net>
Source record: 85349

Jaques, ON5MJ wrote:
"I am not aware of this but it makes sense that efficiency of AC/DC + DC/AC conversion must be higher than the use of pure AC transmission."

Yes. It makes no sense to lose more in conversion than on the transmission line.

The problem with extreme high voltage power transmission is insulator flashover and corona. Alternating current and voltage have effective values which are their peak values divided by the square root of two.

This means that peak volts times peak amps divided by two is the same average power as rms volts times rms amps.

The same average power transmission requires peak values 1.414 times the rms value, effective value, or d-c value.

In d-c tramnsmission, peak and effective values are the same 100% of the tiime, so the required d-c voltage is only 0.707 times the a-c voltage peak for the same power transmission.

Jaques also wrote:
"By definition loads vary all of the time but voltage must not vary accordingly."

Use of d-c eliminates reactance as a cause of voltage variation. It also eliminates "skin effect" as an impefance so that the entire cross-section of the line is used.

The case for extremely high voltage d-c transmission is pretty good.

Best regards, Richard Harrison, KB5WZI

# 3553. Re: Strange question about SWR on HV lines

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-12 21:25:20 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cpid00$ltb$1@titan.btinternet.com>
Source record: 85350

> > Note that, with a resonant Q of 11, should an open-circuit fault occur
at
> a distance of 1/4-wavelength the voltage at the fault can rise to a
million
> volts or more.
>
> How do you compute this ?
>
---

It is computed in exactly the same way at 60 Hz as it is at 60 MHz.

A 1/4-wavelength line behaves as any other tuned circuit. The voltage at the open end rises to Q times the voltage applied at the input end.

With a short-circuit line the current at the short circuit rises to Q times the current at the input end.

The Q of a tuned circuit is the reactance of the inductance divided by the wire resistance. Q = Omega*L / R.

The Q of a transmission line is the reactance of the line's overall inductance divided by the line's overall resistance. And again, Q = Omega*L / R.

Since both L and R are directly proportional to line length, for a given line, Q is a constant and is independent of length.

Omega = 2*Pi*Freq.

There are other more complcated ways of calculating the resonant rise in open-circuit voltage from the line's transmission and propagation properties. But they all give the same answer of course. Such calculations provide a means of checking for program software bugs.

The hardest part of the exercise is calculating the inductance and resistance from the line's physical dimensions and operating frequency. Which are needed anyway to calculate all the many other output quantities from the program. Q is just a spin-off.
----
Reg, G4FGQ

# 3554. Re: Strange question about SWR on HV lines

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-12 21:32:20 UTC
From: jgboyles@aol.com
Message-ID: <20041212163220.07087.00001720@mb-m10.aol.com>
Source record: 85351

>I've always wondered how this is done at very high DC voltages.
>Converting AC to DC is simple, but what do you do at the other end with
>500,000 volts of DC?

If memory serves me correct, the circuit topology is the same with 500kv as it 12v. They use a chopper or DC to AC inverter, but with some really big switching devices. Thyristors have come a long way, I don't think they have one device that can withstand 500kv, they have to string 2 or 3 in series.The largest inverter I have worked on was about 4kv, but it seems they now have them that will go to 500kv. Also, don't think it is all that new, the first 500kv dc transmission line went into service in the late 70's.
73 Gary N4AST

# 3555. Re: Loop Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-12 22:01:10 UTC
From: "William H. O'Hara, III" <whoohara@yahoo.com>
Message-ID: <Xns95BDAD3B5AA97AX2A3DA5M1512AODKAMO@216.196.97.142>
Source record: 85352

"Hal Rosser" <hmrosser@bellsouth.net> wrote in
news:qP1vd.69279$fY.51774@bignews3.bellsouth.net:

>
> "William H. O'Hara, III" <whoohara@yahoo.com> wrote in
> message
> news:Xns95BD83D0AA1A4AX2A3DA5M1512AODKAMO@216.196.97.142...
>> Does anyone have an idea regarding the affect of
>> a T shaped loop? I know that a circle has larger
>> ap then a delta loop or square loop. Would an effect
>> be realized with a T?
>>
>
> sounds like a folded dipole. - and it should act like one
> too. you'll find that if you can move the 'vertical' part
> of the 'T' (feedpoint) using a pully setup, that the
> arrangement can be used for several bands. put a 4-1 balun
> at the bottom of the T.

What happens if I do this,

```
300 feet
--------------------
| | 1
| | 0
| 100 ft 100 ft| 0
|_____ ______| ft
| |
| | 9
| | 0
| | f
|_______| t
FEED
```

Any thoughts?

Thanks
Bill N1EY

## 3556. Re: AM radio reception inside passenger planes?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-12 22:37:43 UTC
From: chuck <chuck@nospam.net>
Message-ID: <XK3vd.1528$2J2.362@newsread2.news.atl.earthlink.net>
Source record: 85353
Cross-posted to: rec.travel.air,rec.radio.amateur.antenna,sci.electronics.equipment

Dave, try these:

Boeing has investigated alleged interference from portable electronic
devices (PEDs) and concluded:

"As a result of these and other investigations, Boeing has not been able
to find a definite correlation between PEDs and the associated reported
airplane anomalies."

You can look this up at:

http://www.boeing.com/commercial/aeromagazine/aero_10/interfere_textonly.html
Aero 10 - Interference from Electronic Devices

Here's another one:

http://www.rvs.uni-bielefeld.de/publications/Incidents/DOCS/Research/Rvs/Article/EMI.html
Electromagnetic interference with aircraft systems

Dave Bushong wrote:
> Lots of data, not much information. No cites given.
>
> Angry crap.
>
> Some Guy wrote:
>
>> Dave Bushong wrote:
>>
>> [Dramatic generalization mode on]
>>
>>> Nearly all aircraft accidents are caused by a series of unlikely
>>> events all happening together, none of which by itself would be
>>> a problem.
>>
>>
>> [Dramatic generalization mode off]
>>
>> Nice sweeping piece of dis-information there buddy.
>>
>> How about this: Nearly all aircraft accidents are caused by a single
>> failure in a single component or a single failure to do something.
>> Pitot tubes that are taped over. Fuel tanks that explode. Structural
>> failure that causes entire pieces of fuselage to peel off while in
>> flight. Fuel leaks that turn large jets into gliders. Cabin fires
>> caused by the overload of a single wire powering the entertainment

>> system. Air pressure equalization valves that bleed cabin air
>> rendering the occupants unconscious and results in a ghost plane
>> flying thousands of miles before crashing. Failure to de-ice.
>> Overloading resulting in stalling upon take-off. Failure to secure
>> cargo upon takeoff. Being struck in the fuel tank by a piece of
>> debris on the runway kicked up by the tires. An engine ingesting a
>> flock of birds. A shipment of improperly-disarmed oxygen generators
>> placed in the cargo hold. Lack of proper lubrication of tail
>> jack-screws. Tail fins that are not as strongly connected to the
>> fuselage as they should be. Need I continue?
>>
>> A series of events will surely happen AFTER any of those incidents,
>> none of which are either unlikely or unexpected, and by and large
>> would have no effect on the outcome.
>>
>> Will the in-flight use of an FM radio EVER cause a plane to run out of
>> fuel? Or cause a sudden ice build-up on the wings? Or blow out a
>> tire upon landing? Or an overload of the electrical system leading to
>> a fire? Will the feeble RF emitted by the LO even be detectable
>> OUTSIDE the plane, where the plane's antennas are located?
>>
>> If you read the various documents on the web relating to issues of
>> in-flight use of PED's (personal electronic devices) it's clear that
>>
>> 1) The FAA and NTSB are either negligent or a bunch of cowards for not
>> forcing the AIRCRAFT MANUFACTURERS to determine the level of
>> susceptibility of their planes to PED's. Instead the issue is pawned
>> off to the aircraft operators when logically it should be the airplane
>> makers!
>>
>> 2) The use of cell phones (analog and perhaps more frequently GSM)
>> seems to have the most influence of any PED. The next most frequent
>> culprit seems to be laptop computers.
>>
>> 3) No incidence of communication failure or disruption seems to have
>> ever been documented by a passenger's FM radio receiver.
>>
>> 4) MANY MANY incidences of navigation equipment errors caused by
>> improper installation / connection of the equipment, or interference
>> caused by one of the plane's other systems where these were first
>> attributed to a PED.
>>
>> 5) Planes have to fly near high-power commercial radio and TV
>> transmission towers. They fly through the beams of powerful radar
>> signals. They get struck by lightning. There are those that say that
>> for a (commercial jet) to be certified there is no way that a
>> certified plane could be susceptible to the stray RF given off by
>> PED's (at least PED's that are non-intentional radiators).
>>
>> 6) The authorities would probably not admit it, but the ban or

>> restrictions on PED use in planes probably has more to do with
>> insurance/liability reasons, or passenger distraction reasons, than it
>> does for technical (interference) reasons.
>>
>> PED's are here to stay. There will be more of them, and people will
>> use them wherever they are. It makes just as much sense to ban them
>> or perform half-ass on-board supervision on a plane for these devices
>> as it is to ban them from cars. PED's used cars cause injury and
>> death each year (due to driver in-attention). Instead of banning
>> radios, phones, and entertainment systems in cars, they instead come
>> from the factory with them installed! Where's your crusade against
>> that situation? Where are your dire warnings here?
>>
>>
>>> Would you want to add one more "unlikely event" to your next
>>> flight?
>>
>>
>>
>> Nothing caused by or brought on board by a passenger (short of
>> alcohol, a gun, a bomb, or otherwise a strong intent to do harm) will
>> or has ever caused anything bad to happen on a plane or to a plane. No
>> gun ever brought on board (and there have been MANY!) has ever
>> discharged. No can of hairspray has ever exploded in the cargo hold.
>>
>> There is relatively little variety in the types, makes or models of
>> commercial airplanes flying today. There is a high degree of
>> uniformity in construction of these vehicles. There have been
>> millions of flights over the past, say 20 years. There have been many
>> hundred million passengers carried by these planes. There surely has
>> been ample opportunity for all sorts of PED's to be used on these
>> planes (surreptitiously or with consent). If any particular plane
>> model (or even specific plane) had a systemic or inherent
>> susceptibility to a PED, it would have been recognized by now.

# 3557. Re: AM radio reception inside passenger planes?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-12 22:54:25 UTC
From: Dave VanHorn <dvanhorn@dvanhorn.org>
Message-ID: <1-udnYjM7_OYUSHcRVn-sA@comcast.com>
Source record: 85354
Cross-posted to: rec.travel.air,rec.radio.amateur.antenna,sci.electronics.equipment

Well, I'll be flying to philly again tuesday.
My dualband HT goes in my breifcase, but with the battery detached during flight.

# 3558. Re: Loop Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-12 23:33:08 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10rpl9oe1ed8965@corp.supernews.com>
Source record: 85355

The free demo version of EZNEC available from http://eznec.com can
easily answer questions just like this.

Roy Lewallen, W7EL

William H. O'Hara, III wrote:
>
> What happens if I do this,
>
> 300 feet
> --------------------
> | | 1
> | | 0
> | 100 ft 100 ft| 0
> |_____ ______| ft
> | |
> | | 9
> | | 0
> | | f
> |_______| t
> FEED
>
>
> Any thoughts?
>
> Thanks
> Bill N1EY
>

## 3559. Re: Browser

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-12 23:33:44 UTC
From: Mike Coslo <mcoslo@adelphia.net>
Message-ID: <YsWdnda-9onKSCHcRVn-3w@adelphia.com>
Source record: 85356

Dave Bushong wrote in part:
> Mike Coslo wrote:

> With 40,000+ newsgroups out there, there is just no reason to post a
> generic "help-me" message about Windows XP cookies, into a newsgroup
> about ham radio antennas. I've been wrong before, but this time, I'm not.

Then I hope you wiil be filtering me along with the Cialis ads and the wierd Sexually oriented posts! I probably have nothing of worth to offer you.

- Mike KB3EIA -

## 3560. Re: Strange question about SWR on HV lines

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-12 23:44:20 UTC
From: ON5MJ <my_call_sign@skynet.be>
Message-ID: <41bcd6fa$0$13462$ba620e4c@news.skynet.be>
Source record: 85357

Thank you Richard for these two clear explanations. I have studied corona effect many years ago but I never dived in this domain for professional reasons.

73 de ON5MJ - Jacques.

# 3561. Re: Strange question about SWR on HV lines

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-12 23:44:57 UTC
From: ON5MJ <my_call_sign@skynet.be>
Message-ID: <41bcd6fa$1$13462$ba620e4c@news.skynet.be>
Source record: 85358

Thank you Reg. Simple math.

Jacques.

# 3562. Re: TV antenna & cabling question ...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-12 23:46:48 UTC
From: w9gb <onw9mapsgb@no.ar.spam.rl.net>
Message-ID: <IL4vd.183980$V41.88886@attbi_s52>
Source record: 85359

"Allodoxaphobia" <bit-bucket@config.com> wrote in message
news:slrncrotp3.1jce.bit-bucket@shell.config.com...
> On Sat, 11 Dec 2004 23:11:11 -0500, Dave VanHorn hath writ:
>
> Kewl, I had never heard of firestopping putty. I assume/hope it can
> be easily dug out when/if you need to fish new cables. I think I'd
> like it, too, for it's draft blockage feature
>
Jonesy ---

Absolutely, has become a big problem with independent contractors in many building (especially hospitals). When I did a major rewire in the early 1990s (to EIA/TIA specifications), I pulled out so much cable and found so much out of compliance work .. that the engineering department of the hospital thanked me and the legal counseling firm sent me a big gift for reduced risk and potential litigation costs.

Fire code comments
http://www.bccresearch.com/chem/DFI95.html

Caulks and putties for joints and penetrations
http://www.na.graceconstruction.com/product.cfm?mode=c&did=4&id=96

http://www.rectorseal.com/frstpn2.htm

http://www.all-stateproducts.com/html/firestopping.htm

## 3563. Re: TV antenna & cabling question ...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-12 23:47:44 UTC
From: w9gb <onw9mapsgb@no.ar.spam.rl.net>
Message-ID: <vM4vd.560637$D%.110398@attbi_s51>
Source record: 85360

"Allodoxaphobia" <bit-bucket@config.com> wrote in message
news:slrncrotp3.1jce.bit-bucket@shell.config.com...
> On Sat, 11 Dec 2004 23:11:11 -0500, Dave VanHorn hath writ:
> Kewl, I had never heard of firestopping putty. I assume/hope it can
> be easily dug out when/if you need to fish new cables. I think I'd
> like it, too, for it's draft blockage feature
>
> Jonesy

Here is the White Paper from Wiremold
http://www.wiremold.com/www/commercial/education/white_papers/index.asp?wpid=13

# 3564. Re: Browser

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-12 23:50:03 UTC
From: Mike Coslo <mcoslo@adelphia.net>
Message-ID: <GPWdneSd_763RCHcRVn-3w@adelphia.com>
Source record: 85361

Dave Bushong wrote:

> Art,
>
> There was nothing wrong with your posting. It's just in the wrong
> newsgroup. I don't know how to make any more simple.
>
> All the best, and good luck with your "cumputor",
> Dave
>

Well, Gee, Dave!

I don't see you telling the "FS 8 pill linear", the "I PASS MY TEST ALSO THE EASY WAY", the "Strange question about SWR on HV lines" posters that *they* are off topic.

So here you have a regular poster making a post, and another (several) answering him with helpful non-trolling, non confrontational advice, and this is a big problem for you?

- Mike KB3EIA -

# 3565. Re: Browser

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-13 00:15:27 UTC
From: pfriedmanNoSpam <p.paulfriedmanNoSpam@comcast.net>
Message-ID: <dqqdnVQUxe6AQiHcRVn-sA@comcast.com>
Source record: 85362

"Mike Coslo" <mcoslo@adelphia.net> wrote in message
news:YsWdnda-9onKSCHcRVn-3w@adelphia.com...
> Dave Bushong wrote in part:
>> Mike Coslo wrote:
>
>> With 40,000+ newsgroups out there, there is just no reason to post a
>> generic "help-me" message about Windows XP cookies, into a newsgroup
>> about ham radio antennas. I've been wrong before, but this time, I'm
>> not.
>
>
> Then I hope you wiil be filtering me along with the Cialis ads and the
> wierd Sexually oriented posts! I probably have nothing of worth to offer
> you.
>
> - Mike KB3EIA -
>

Let's see. I regular poster asks a question in a newsgroup where a) he is known and b) he knows the other regular poster -- kinda helpful in judging answers.

I suppose you COULD have posted it in alt.cookies.yum.yum.yum but I see no problem posting it here.

BTW, Firefox is great. <grin>

Paul AB0SI

## 3566. W4RNL?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-13 00:16:19 UTC
From: Floyd Sense <fsense@copper.net>
Message-ID: <41bcdf9e_1@newsfeed.slurp.net>
Source record: 85363

Anyone else able to get to www.cebik.com?

--
73, Floyd - K8AC

# 3567. Re: AM radio reception inside passenger planes?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-13 00:23:51 UTC
From: phoneguy99 <phoneguy99unspam@unspamsympatico.ca>
Message-ID: <fh5vd.2407$%p1.245540@news20.bellglobal.com>
Source record: 85365
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.equipment

TaxSrv wrote:
> cabin. But has anybody ever heard a cabin announcement during flight
> to turn off any devices?
>
> Fred F.

YES.

I was on a flight from Toronto to Tampa a few years ago and somewhere over the Carolinas the pilot came on the PA and calmly informed us they have spent the last 45 mins trying to find the source of a buzzing noise on their radios. (He also reinforced the fact that they were all still working, but there was a buzzing noise on the audio.) He politely told everyone to turn off any electronic devices they may be using. The flight attendants quickly verified passenger compliance a few minutes later. About 10 mins after that, he came on the PA to say it was gone and instructed everyone to leave them off for the duration of the flight, not that there was any danger, but it was distracting to have a constant buzzing coming over the radio.

I did notice a couple of laptops had been fired up, but sitting in your seat is not exactly an ideal vantage point to see what everyone else was doing.

Do I think someone's radio is going to make the plane fall from the sky? Of course not. Is there a remote possibility it could cause birdies or other RF anomalies that 'could' affect things? Sure.

On one flight, a few years earlier still, WITH the ok from the flight deck (you know, in those friendlier years when you could say 'hi' through the open cockpit door when you were coming out of the bathroom) I used my FT-470 handie for a few mins. The pilot knew what ham radio was, knew I was going to be on UHF (because I told him that's where I would try for a quick QSO) and he very politely said "Sure, but only for 5 minutes, then turn it off. What seat are you in?" I thanked him kindly, returned to my window seat, and did manage to get into some repeater in Maine for about a minute or two. The funny thing was he was in the galley as we were getting off the plane, I thanked him again, and he asked if I had any luck, I said 'yep' and asked him if I came over anything up front. He smiled and said "Nope, and we were up there looking to see if you would."

The purpose of my sharing this snippet from many years ago is not to illustrate there's no danger in using a receiver (or in this case, a low power transmitter) while on a plane, but using one does not

automatically imply you're going to write off the comm/nav systems.

My $.02

## 3568. Re: higher-gain eggbeater-2 omni?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-13 00:25:48 UTC
From: no_one <no_one@earthlink.net>
Message-ID: <gk5vd.9065$yr1.2498@newsread3.news.pas.earthlink.net>
Source record: 85364
Cross-posted to: rec.radio.amateur.antenna,alt.engineering.electrical,sci.physics.electromag

try this

http://members.aol.com/k5oejerry/eggbeater2.htm

"Hal Rosser" <hmrosser@bellsouth.net> wrote in message
news:0I1vd.69276$fY.3879@bignews3.bellsouth.net...
>
> <alanh_27@yahoo.com> wrote in message
> news:1102880383.658366.248710@f14g2000cwb.googlegroups.com...
>> seek design info to put together Eggbeater-2 flavored homebrew antennas
>> for LEO satphone & sat-broadcast-radio service onto ships and
>> vehicles.... with a bit of gain. Ready & Willing to consume metal
>> and real estate.
>>
> Gain (in one direction) means nulls (in other directions)
> if you want gain - then you should specify 'in which direction' - and
> proceed from there, keeping in mind a different type of antenna may be a
> better solution.
>
>
>
>
> ---
> Outgoing mail is certified Virus Free.
> Checked by AVG anti-virus system (http://www.grisoft.com).
> Version: 6.0.807 / Virus Database: 549 - Release Date: 12/7/2004
>
>

## 3569. Re: W4RNL?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-13 01:32:08 UTC
From: Dan Richardson <dwr@mailinator.com>
Message-ID: <i7spr017iom260ousdmfbkoh5j3p7ed9tc@4ax.com>
Source record: 85367

On Sun, 12 Dec 2004 19:16:19 -0500, "Floyd Sense" <fsense@copper.net>
wrote:

>Anyone else able to get to www.cebik.com?

Yep, seems to be down. (12-12-04 @ 17:30 hours)

Danny, K6MHE

# 3570. Re: AM radio reception inside passenger planes?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-13 01:32:17 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <yi6vd.56530$Af.7145@fed1read07>
Source record: 85366
Cross-posted to: rec.travel.air,rec.radio.amateur.antenna,sci.electronics.equipment

"TaxSrv" <n3_eu@comcast.net> wrote in message
news:2YidnWP6YuJIHiHcRVn-sw@comcast.com...
> Hey folks, let's not overdo the safety aspects here, so no one panics
> if aboard an airliner and sees someone using a radio. I doubt any
> device emitting small RF will be able to make comm reception
> unreadable. Even if it did, there are then fallback procedures which
> the pilot is required to know by heart,

Your doubts do not stand up to empirical evidence. Stick to assertions that have a basis in fact and not just in your mind.

The whole point is to not weaken the chain of redundant flight safety features just to allow a piece of meat cargo to be electronically entertained.

> Now the same considerations apply to flying the approach and landing,
> but the pilot would rather not have to deal with potential
> interference to either nav or comm, especially if the airport is 1/2
> mile visibility in fog. Thus, it's not too uncommon for the pilot to
> grant permission to use a radio device only while in cruise.

And all passengers will immediately comply, because they are all concerned about not creating a dangerous electronic environment. Games will be halted, spreadsheets closed, and porn movies terminated. Cabin attendants will notice immediate 100% compliance, and will not be distracted from other duties to repeatedly remind, cajole or threaten recalcitrant passengers.

Fred, your world is much different than any I have ever seen.

Ed
wb6wsn

## 3571. Re: AM radio reception inside passenger planes?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-13 01:55:38 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <sE6vd.56665$Af.23322@fed1read07>
Source record: 85368
Cross-posted to: rec.travel.air,rec.radio.amateur.antenna,sci.electronics.equipment

"Some Guy" <Some@Guy.com> wrote in message news:41BC9EBE.752909A7@Guy.com...
> Dave Bushong wrote:
>
> [Dramatic generalization mode on]
>> Nearly all aircraft accidents are caused by a series of unlikely
>> events all happening together, none of which by itself would be
>> a problem.
> [Dramatic generalization mode off]
>
> Nice sweeping piece of dis-information there buddy.

>
> Will the in-flight use of an FM radio EVER cause a plane to run out of
> fuel? Or cause a sudden ice build-up on the wings? Or blow out a
> tire upon landing? Or an overload of the electrical system leading to
> a fire? Will the feeble RF emitted by the LO even be detectable
> OUTSIDE the plane, where the plane's antennas are located?

It's so damn complicated that nobody can answer the question. Airliners are going in the direction of all-electronic flight control and management systems. Somebody's LO won't affect fuel consumption, uhh, unless it affects the microprocessor or sensors controlling the engine. It's unlikely, a lot of work goes toward making it extremely unlikely. But remember, I said unlikely, not impossible.

Ice on the wings? What controls the de-icing boot?

Blow a tire? Is the braking circuit all-mechanical, or do you have something akin to power boost and anti-lock sensing?

Is the LO detectable outside the fuselage, near the antennas? YES, damn it, YES. I have measured it, with calibrated field strength meters. Don't give me your damn dumb opinions when I have seen the results myself. And is the LO emission strong enough to degrade or deny a navcom signal. YES or MAYBE or COULD BE. It depends on the passenger's radio, how he holds it, is he next to a window, is the fuselage unusually leaky to RF, what seat is the passenger in, what station is the radio tuned to, are the batteries new or weak, how weak is the navcom signal, what is the attitude of the aircraft, is the navcom receiver getting old, even are there multiple passenger receivers acting on the navcom (if they are all like you, how many of 300 passengers will have personal electronics running?).

The POSSIBILITY of interference is undeniable. The PROBABILITY is very difficult to predict. The safe course is to deny you your entertainment for several hours to ensure maximum safety. Is that too much to ask of you?

Ed
wb6wsn

# 3572. Re: Loop Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-13 02:05:20 UTC
From: "William H. O'Hara, III" <whoohara@yahoo.com>
Message-ID: <Xns95BDD6A1CEEEAAX2A3DA5M1512AODKAMO@216.196.97.142>
Source record: 85369

Roy Lewallen <w7el@eznec.com> wrote in
news:10rpl9oe1ed8965@corp.supernews.com:

> The free demo version of EZNEC available from
> http://eznec.com can easily answer questions just like
> this.
>

It refuses to calculate SWR due to multiple wires
running so close would create interactions.

Bill

# 3573. Re: AM radio reception inside passenger planes?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-13 02:13:58 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <EV6vd.56723$Af.49953@fed1read07>
Source record: 85371
Cross-posted to: rec.travel.air,rec.radio.amateur.antenna,sci.electronics.equipment

"chuck" <chuck@nospam.net> wrote in message
news:XK3vd.1528$2J2.362@newsread2.news.atl.earthlink.net...
> Dave, try these:
>
> Boeing has investigated alleged interference from portable electronic
> devices (PEDs) and concluded:
>
> "As a result of these and other investigations, Boeing has not been able
> to find a definite correlation between PEDs and the associated reported
> airplane anomalies."
>
> You can look this up at:
>
> http://www.boeing.com/commercial/aeromagazine/aero_10/interfere_textonly.html
> Aero 10 - Interference from Electronic Devices
>
> Here's another one:
>
>
http://www.rvs.uni-bielefeld.de/publications/Incidents/DOCS/Research/Rvs/Article/EMI.html
> Electromagnetic interference with aircraft systems

Not to cast aspersions on Boeing research, as they are quite reputable, but
if they had found correlatable evidence of PED's interfering with avionics,
who gets sued? The passenger, a Hong Kong radio manufacturer, or the
aircraft builder?

In any case, the reports of interference keep coming in, despite the
difficulty of replicating the problem. Obviously, the problem is rare and
elusive, but, as in most Electromagnetic Compatibility issues, the easiest,
surest, and cheapest cure is to control the source of the problem.

Just turn off ALL passenger electronics for the duration of the flight. Read
a book for 2 hours, and let your kid kick the seat in front of him.

Ed
wb6wsn

Ed
wb6wsn

# 3574. Re: AM radio reception inside passenger planes?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-13 02:16:39 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <9Y6vd.56732$Af.56321@fed1read07>
Source record: 85272
Cross-posted to: rec.travel.air,rec.radio.amateur.antenna,sci.electronics.equipment

"Dave VanHorn" <dvanhorn@dvanhorn.org> wrote in message
news:1-udnYjM7_OYUSHcRVn-sA@comcast.com...
>
> Well, I'll be flying to philly again tuesday.
> My dualband HT goes in my breifcase, but with the battery detached during
> flight.
>
>

The first note of personal responsibility and common sense yet seen in this
thread. Congratulations!

Ed
wb6wsn

# 3575. Re: Browser

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-13 02:23:59 UTC
From: art <aunwin@insightbb.com>
Message-ID: <1102904639.819318.248030@f14g2000cwb.googlegroups.com>
Source record: 85273

Mike Coslo wrote:
> Dave Bushong wrote:
>
snip.
>
> So here you have a regular poster making a post, and another
(several)
> answering him with helpful non-trolling, non confrontational advice,
snip

Yes, that did not go by un noticed Mike. Over the years I have
probably ticked off every one of those who offered valued advice when
really all could have ignored my post, I did appreciate that.
On a side note, I have just ordered some powder coating which I will
place in a airiated bowl , I can then immerse a rotary capacitor in it
so I can up its voltage rating. The gap between the plates are pretty
wide so I am hoping to make the powder coat quite thick. Haven't heard
Of anybody doing this to avoid the high cost of vacuum capacitors but
that maybe because the idea is a failure.grin
But if it works out O.K. some loop antenna makers might want to try it.
Art

# 3576. Re: AM radio reception inside passenger planes?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-13 02:24:47 UTC
From: TaxSrv <n3_eu@comcast.net>
Message-ID: <X82dneNw1pFcZyHcRVn-uA@comcast.com>
Source record: 85370
Cross-posted to: rec.travel.air,rec.radio.amateur.antenna,sci.electronics.equipment

"Ed Price" wrote:
>...
> Stick to assertions that
> have a basis in fact and not just in your mind.
> ...
> Fred, your world is much different than any I have ever seen.
>
> Ed
> wb6wsn

My world is as an instrument rated pilot and one who services aircraft avionics. And you must have missed my other post where I said PEDs should be off at all times.

Fred F.

# 3577. Re: AM radio reception inside passenger planes?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-13 02:27:58 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <mc7vd.56808$Af.13488@fed1read07>
Source record: 85275
Cross-posted to: rec.radio.amateur.antenna,sci.electronics.equipment

"phoneguy99" <phoneguy99unspam@unspamsympatico.ca> wrote in message
news:fh5vd.2407$%p1.245540@news20.bellglobal.com...
>
> TaxSrv wrote:
>> cabin. But has anybody ever heard a cabin announcement during flight
>> to turn off any devices?
>>
>> Fred F.
>
> YES.

SNIP

> On one flight, a few years earlier still, WITH the ok from the flight deck
> (you know, in those friendlier years when you could say 'hi' through the
> open cockpit door when you were coming out of the bathroom) I used my
> FT-470 handie for a few mins. The pilot knew what ham radio was, knew I
> was going to be on UHF (because I told him that's where I would try for a
> quick QSO) and he very politely said "Sure, but only for 5 minutes, then
> turn it off. What seat are you in?" I thanked him kindly, returned to my
> window seat, and did manage to get into some repeater in Maine for about a
> minute or two. The funny thing was he was in the galley as we were getting
> off the plane, I thanked him again, and he asked if I had any luck, I said
> 'yep' and asked him if I came over anything up front. He smiled and said
> "Nope, and we were up there looking to see if you would."
>
> The purpose of my sharing this snippet from many years ago is not to
> illustrate there's no danger in using a receiver (or in this case, a low
> power transmitter) while on a plane, but using one does not automatically
> imply you're going to write off the comm/nav systems.
>
> My $.02
>

It also illustrates the safety concern. Although there were no observed improper responses from the aircraft avionics, "we were up there looking to see if you would" (cause a problem) is very disturbing. You added to the pilots' workload for several minutes, involving them in an interesting science project. The cockpit is normally a very busy place, so what tasks were slighted to allow time for your project?

How would you have felt if the flight crew was diverting some of their time to help somebody with a tough crossword puzzle? Was a Maine QSO worth it all? I'd have given you a whole quarter to pull the battery from your HT!

Ed
wb6wsn

# 3578. Re: W4RNL?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-13 02:30:31 UTC
From: k9sqg@aol.com
Message-ID: <20041212213031.06162.00001369@mb-m27.aol.com>
Source record: 85274

That isn't a valid destination.

# 3579. Re: AM radio reception inside passenger planes?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-13 02:41:45 UTC
From: theplanters95@aol.comnospam
Message-ID: <20041212214145.16189.00001961@mb-m02.aol.com>
Source record: 85276

Years ago I was flying in a friends private plane. I used a Ht on 146.52 to make some contacts. My friend announces that we are lost. It took about 10 minutes before I found a landmark and got him following a road to the airport. My friend believes that the HT interfered with his radio compass and put use off course. After the HT was turned off and time was allowed, the compass returned to normal. I don't know how it happened, but it did! Now I just carry my ht on the plane and do not operate!

Randy ka4nma

# 3580. Re: Strange question about SWR on HV lines

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-13 02:44:56 UTC
From: Crazy George <muNnscOh@attSglPobaAl.nMet>
Message-ID: <41bd0541_1@news1.prserv.net>
Source record: 85277

Jacques:

I wonder if the actual concern is not frequency/phase differences between isolated systems? If the two grids (Sweden,
EU) are not already interconnected, and the required control protocols established, then that might be the real
difficulty, and it was called SWR, since the other is much more difficult to explain to lay persons. But, take heart!
This month's Transmission & Distribution magazine describes a new device called a Variable Frequency Transformer (VFT)
which can couple up to a megawatt of power in either direction between two systems which can differ in frequency up to
several cycles per second. The first one has just gone on line at Hydro Quebec's Langlois substation between Quebec and
upstate New York.
--
Crazy George
Remove N O and S P A M imbedded in return address
"ON5MJ" <my_call_sign@skynet.be> wrote in message
news:41bc1654$0$9314$ba620e4c@news.skynet.be...
> Thank you gentlemen for all your replies,
>
> To make a summary:
>
> The discussion with my friend started about the difficulty in Sweden to sell
> electricity to continental Europe due to long haul lines and supposedly SWR
> on those lines. I didn't understand this last point.
>

# 3581. Re: AM radio reception inside passenger planes?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-13 03:25:01 UTC
From: Wes Stewart <n7ws_@_yahoo.com>
Message-ID: <lh2qr0l4oagmde7lvt9g66m6i9h4htlmnl@4ax.com>
Source record: 85278

On 13 Dec 2004 02:41:45 GMT, theplanters95@aol.comnospam
(Theplanters95) wrote:

|Years ago I was flying in a friends private plane. I used a Ht on 146.52 to
|make some contacts. My friend announces that we are lost. It took about 10
|minutes before I found a landmark and got him following a road to the airport.
|My friend believes that the HT interfered with his radio compass and put use
|off course. After the HT was turned off and time was allowed, the compass
|returned to normal. I don't know how it happened, but it did! Now I just
|carry my ht on the plane and do not operate!

Despite my concerns expressed earlier I will confess to contacting a
couple of my buddies using my 2-meter handi from an aircraft, with the
pilot's permission.

'Course, he was also a ham and we were flying in a sailplane that had
a couple of light bulbs for electronics. [g] The only way to fly.

# 3582. Newbie low-brain question re: fm stereo broadcast antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-13 03:30:05 UTC
From: icebox500@gmail.com
Message-ID: <1102908605.491530.205800@c13g2000cwb.googlegroups.com>
Source record: 85279

I have a small 1 watt transmitter. I have a simple goal of using it to cover my horse so I can tune the same music throughout.

I have tried a variety of antennas to get it to work, but have been largely unsuccessful. I guess I don't know what I'm doing!

My latest and best antenna is a j-pole I built with copper pipe and mounted inside my garage. No matter where I place it in my house though I am simply unable to create a quality signal that carries more than 50 feet.

If anyone is willing to give me some tips I'd be very appreciative.
James

# 3583. FS: YAESU G-800SDX ROTOR

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-13 03:44:33 UTC
From: me <nospam@nospam.com>
Message-ID: <r04qr01ppv9okb4r64uu17ahrrd12rf9uo@4ax.com>
Source record: 85280

FS: YAESU G-800SDX ROTOR
This is the rotor only (no control box) for a Yaesu G-800SDX.
The rotor works fine and is in good shape. The internal
potentiometer strip is intact and measures 0-500 ohms
which is sent to the control unit. Includes copy of manual
(on disk). $150.00 plus shipping from Kansas City area.
Contact me direct, using email address below (removing the
NOSPAM)
73,
Dan (K0DAN)
NOSPAMk0dan@arrl.net

# 3584. Re: Browser

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-13 03:52:01 UTC
From: Mike Coslo <mcoslo@adelphia.net>
Message-ID: <xdidnSRvjLR9jCDcRVn-1g@adelphia.com>
Source record: 85281

art wrote:

> Mike Coslo wrote:
>
>>Dave Bushong wrote:
>>
>
> snip.
>
>> So here you have a regular poster making a post, and another
>
> (several)
>
>>answering him with helpful non-trolling, non confrontational advice,
>
> snip
>
>
> Yes, that did not go by un noticed Mike. Over the years I have
> probably ticked off every one of those who offered valued advice when
> really all could have ignored my post, I did appreciate that.
> On a side note, I have just ordered some powder coating which I will
> place in a airiated bowl , I can then immerse a rotary capacitor in it
> so I can up its voltage rating. The gap between the plates are pretty
> wide so I am hoping to make the powder coat quite thick. Haven't heard
> Of anybody doing this to avoid the high cost of vacuum capacitors but
> that maybe because the idea is a failure.grin
> But if it works out O.K. some loop antenna makers might want to try it.

By gosh, that might just work! I don't know much about powder coating,
but since they do have powders designed for electrical insultation
properties, you might have a winner.

Just make sure to let us know!!!

And it would be a great thing for my loop. At present, I have a
trombone cap, and it wears out the mylar insulation as I use it.

- Mike KB3EIA -

# 3585. Re: W4RNL?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-13 04:47:01 UTC
From: Bob Bob <bcnntp@optusnet.com.au>
Message-ID: <5fjv82-n74.ln1@p400bob.lse.com.au>
Source record: 85284

Seems dead from here 04:45Z

I liked the site so much I wget'd the whole lot down (websuck) so I can
browse at speed. I hope Mr Cebik doesnt mind that!

Floyd Sense wrote:
> Anyone else able to get to www.cebik.com?
>

# 3586. Re: Newbie low-brain question re: fm stereo broadcast antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-13 04:58:36 UTC
From: Bob Bob <bcnntp@optusnet.com.au>
Message-ID: <t4kv82-jd4.ln1@p400bob.lse.com.au>
Source record: 85283

James

Your poor horse (house - grin)

Might be worthwhile using leaky coax (radiates over its length - often used in road tunnels and mines) or maybe working out an antenna splitting exercise to various parts of the house. (ie two or more antennas) Use 1/4 wave (or odd multiple) Q sections at each antenna and combine them with a T connector before plugging into the TX. You will of course get occasional nulls where two antennas patterns meet out of phase.

A "badly fed" antenna at one end of the house with the TX at the other may radiate enough from the feedline to make the system usable. I am talking about making a deliberate mismatch here that still looks like 50 ohms at the TX. My first thought here would be to use a 4:1 coax balun at each end and use 300 ohm ribbon in the middle for maybe 30 feet. In odd places I'd then spread the 300 ohm ribbon conductors apart so they radiate a little more..

You may even find that placing the current good antenna in the roof space might work better.

Cheers Bob VK2YQA

icebox500@gmail.com wrote:
> I have a small 1 watt transmitter. I have a simple goal of using it to
> cover my horse so I can tune the same music throughout.
>
> I have tried a variety of antennas to get it to work, but have been
> largely unsuccessful. I guess I don't know what I'm doing!
>
> My latest and best antenna is a j-pole I built with copper pipe and
> mounted inside my garage. No matter where I place it in my house though
> I am simply unable to create a quality signal that carries more than 50
> feet.
>
> If anyone is willing to give me some tips I'd be very appreciative.
> James
>

# 3587. Re: Loop Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-13 05:04:39 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10rq8nbbjqt5c2@corp.supernews.com>
Source record: 85282

There shouldn't be any problem with that antenna. Please send me the description (.EZ) file as an email attachment, and I'll look it over.

Roy Lewallen, W7EL

William H. O'Hara, III wrote:
> Roy Lewallen <w7el@eznec.com> wrote in
> news:10rpl9oe1ed8965@corp.supernews.com:
>
>
>>The free demo version of EZNEC available from
>>http://eznec.com can easily answer questions just like
>>this.
>>
>
>
> It refuses to calculate SWR due to multiple wires
> running so close would create interactions.
>
> Bill

# 3588. Re: Loop Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-13 05:23:15 UTC
From: Ken Fowler <ko6no@yahoo.com>
Message-ID: <HLmdnfjq9vHeuiDcRVn-rA@comcast.com>
Source record: 85285

On 12-Dec-2004, "William H. O'Hara, III" <whoohara@yahoo.com> wrote:

> Roy Lewallen <w7el@eznec.com> wrote in
> news:10rpl9oe1ed8965@corp.supernews.com:
>
> > The free demo version of EZNEC available from
> > http://eznec.com can easily answer questions just like
> > this.
> >
>
> It refuses to calculate SWR due to multiple wires
> running so close would create interactions.
>
> Bill

Hi Bill,

Not sure about EZNEC Demo, but EZNEC 3.0 models it and gives Source Data (SWR) in the 600 to 1200
ohm range. Maybe you should check your connections and try again. For what it's worth, the pattern
is like most large horizontal loops, except for two large lobes in the direction of the top corners
of the tee.

Ken Fowler

# 3589. Re: I PASS MY TEST ALSO THE EASY WAY.way to go wildboy74

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-13 05:25:02 UTC
From: FREEBAND28MHZ@webtv.net
Message-ID: <5402-41BD27AE-178@storefull-3277.bay.webtv.net>
Source record: 85286

wildboy your number 1 # we will win the war on freeband .ham will be
now spam . when the truckers take over.our next band will be 6
meters so pass it own..73s

# 3590. Re: TV antenna & cabling question ...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-13 05:40:23 UTC
From: Dave VanHorn <dvanhorn@dvanhorn.org>
Message-ID: <afOdnUeZ4rLEsSDcRVn-uA@comcast.com>
Source record: 85287

```
>> On Sat, 11 Dec 2004 23:11:11 -0500, Dave VanHorn hath writ:
>> Kewl, I had never heard of firestopping putty. I assume/hope it can
>> be easily dug out when/if you need to fish new cables. I think I'd
>> like it, too, for it's draft blockage feature
>>
>> Jonesy

Wasn't me what writ that part.
```

## 3591. Re: AM radio reception inside passenger planes?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-13 05:50:03 UTC
From: Dave VanHorn <dvanhorn@dvanhorn.org>
Message-ID: <gc-dnSnzpM3wsCDcRVn-ig@comcast.com>
Source record: 85288

> 'Course, he was also a ham and we were flying in a sailplane that had
> a couple of light bulbs for electronics. [g] The only way to fly.

Well, if one of the light bulbs goes out, they'll blame it on the nearest ham :)

Seems pretty safe, but I still wouldn't do it without permission.

I'm like that when I drive.
I'm in the left seat, it's my car and my ass, and I make the decisions.
I have actually had a passenger throw a fit because I wouldn't make a left turn that I wasn't convinced was safe, in the 1-2 seconds I had to look at it when the passenger hollered "turn left here". He got to walk home.

## 3592. Re: Newbie low-brain question re: fm stereo broadcast antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-13 08:10:42 UTC
From: CW <cmagers@earthlink.net>
Message-ID: <MdqdnXP8wvuj0yDcRVn-iA@comcast.com>
Source record: 85289

If that won't do it, it must be an awful big horse.

<icebox500@gmail.com> wrote in message
news:1102908605.491530.205800@c13g2000cwb.googlegroups.com...
> I have a small 1 watt transmitter. I have a simple goal of using it to
> cover my horse so I can tune the same music throughout.

# 3593. Re: W4RNL?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-13 08:14:38 UTC
From: ON5MJ <my_call_sign@skynet.be>
Message-ID: <41bd4ece$0$29528$ba620e4c@news.skynet.be>
Source record: 85290

A few weeks ago I have sent him an e-mail at cebik@cebik.com and he replied me, but at the same time the main page of his web site was already off. So maybe you can try to question him.

ON5MJ

# 3594. Re: I PASS MY TEST ALSO THE EASY WAY.way to go wildboy74

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-13 08:29:50 UTC
From: Da-man <Socialwork@sucks.com>
Message-ID: <Zrcvd.12251$Ae.705@newsread1.dllstx09.us.to.verio.net>
Source record: 85291

"FREERADIO PIRATEHAM" <FREEBAND28MHZ@webtv.net> wrote in message
news:5402-41BD27AE-178@storefull-3277.bay.webtv.net...
> wildboy your number 1 # we will win the war on freeband .ham will be
> now spam . when the truckers take over.our next band will be 6
> meters so pass it own..73s
>

Dream on - ass holes..... Your time will come. Start saving your money
now. The fines are a real pain in the ass.

DM

# 3595. Re: Antenna Tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-13 11:30:43 UTC
From: Jon <g2fhf@g3sds.org.uk>
Message-ID: <cpjuh2$4dg$1@newsg1.svr.pol.co.uk>
Source record: 85292

Jim

MFJ have a balanced line tuner out, my friend has one and says it's great. I have built several Z-Match tuners and swear my them, they are easy to make if you can get the parts. It depends what sort of power you intend to run. Linear Amp UK make a high power balanced line tuner, you can find thier website here: http://www.lauk.karoo.net/

Jon G2FHF

JimK2TL@gmail.com wrote:
> Hi
> Does anyone know of a manufacturer of an ATU that places a 1:1 balun on
> the input side, like the Palstar AT4K does? I like that tuner, but it
> is a bit pricey. Just wondering who the competitors are, if any.
> Thanks
>

# 3596. Re: Antenna Tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-13 12:11:07 UTC
From: "JimK2TL@gmail.com" <JimK2TL@gmail.com>
Message-ID: <1102939867.474022.218980@z14g2000cwz.googlegroups.com>
Source record: 85293

Hello
Thank you for that link..I was not aware of those products!..Maybe I
should subscribe to the RSGB magazine, Hi .
I don't like MFJ products and the Palstars are very expensive. I will
seriously look at the Linear Amp products.
Do you have any experience with them, or know where I can get a product
review?
Thanks!

# 3597. Re: Antenna Tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-13 12:12:54 UTC
From: "JimK2TL@gmail.com" <JimK2TL@gmail.com>
Message-ID: <1102939974.201013.225080@z14g2000cwz.googlegroups.com>
Source record: 85294

Hello
Yes I am aware of the Matchbox, having been licensed since 1964. In
those days the Matchbox was still "new", Hi .
They have a limited matching range. They can work great on some
antennas and bands, and not at all on others.
Jimn

# 3598. Difficult choice : FRITZEL GPA 50 or DIAMOND CP6 or HUSTLER 5BTV ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-13 12:54:09 UTC
From: on4kvk@skynet.be
Message-ID: <1102942449.793805.163690@c13g2000cwb.googlegroups.com>
Source record: 85295

Hi all,

As i have not the place to raise a large beam. I've been searching
different information sources for an HF antenna that doesn't need to
much space.
In the end i got stuck with the antenna's mentioned above.
Has anyone used the 3 of them ?
At this point in time, I'm leaning towards the Hustler for the
performance and the Diamond for the eassy set-up.
I'm looking forward to the feedback of people that have used these
antenna's before.
Kind Regards, Karel (ON4KVK)

# 3599. Re: AM radio reception inside passenger planes?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-13 14:47:43 UTC
From: richardharrison@webtv.net
Message-ID: <25037-41BDAB8F-242@storefull-3253.bay.webtv.net>
Source record: 85296

Some Guy wrote:
"I have no trouble receiving FM radio broadcasts on a small am/fm radio
I sometimes listen to while onboard commercial jet sirliners (flying at
cruise altitude), but I bever seem to be able to pick up AM radio
stations. It`s just static across the AM band.

Any explanation for this?"

Fuselage of the airliner acts as a waveguide below cutoff frequency
(where diameter is at least 1/2-wavelength). Below cutoff, attenuation
soars rapidly.

FM wavelength is about 3 meters. AM wavelength is about 300 meters.
Propagation of FM inside the fuselage is OK. Propagation of AM inside
the fuselage vanishes quickly.

You need to stick the suction cups of your Zenith portable`s Wave Magnet
to a window to get AM reception.

Best regards, Richard Harrison, KB5WZI

## 3600. Re: TV antenna & cabling question ...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-13 15:20:35 UTC
From: Allodoxaphobia <bit-bucket@config.com>
Message-ID: <slrncrrcq3.k4p.bit-bucket@shell.config.com>
Source record: 85297

On Mon, 13 Dec 2004 00:40:23 -0500, Dave VanHorn hath writ:
>
> Wasn't me what writ that part.

sri

Jonesy

# 3601. Re: Newbie low-brain question re: fm stereo broadcast antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-13 15:30:42 UTC
From: richardharrison@webtv.net
Message-ID: <1242-41BDB5A2-203@storefull-3258.bay.webtv.net>
Source record: 85298

James wrote:
"I have a goal of using it (1-watt FM transmitter) to cover my house so
I can tune the same music throughout."

Use twinleaad between the transmitter at one end of the house and a load
resistor at the other end. Twinlead will leak enough due to imbalance to
be received all along its length.

Works for 2-way radio operation in tunnels, etc.

Best regards, Richard Harrison, KB5WZI

# 3602. Re: Strange question about SWR on HV lines

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-13 15:33:28 UTC
From: Nick <wa5bdu@yahoo.com>
Message-ID: <1102952008.851792.19320@z14g2000cwz.googlegroups.com>
Source record: 85301

Richard Clark wrote:

> 
> Hi Nick,
> 
> Phase is necessarily found in Impedance. As you allow that multiple
> generators share a line, they are also across the load as a load if
> they do not present the right phase.
> 
> As for the "bad idea" of matching, you are appealing to Edison's old
> and deliberate misreading of Thevenin. Matching does NOT require a
> resistance, this is a mis-read of conjugate matching that follows the
> fact (in antennas). It does not drive the need (in power delivery).
> Power stations only need perform a Z Match, not a Conjugate Match.
> Any form of X is sufficient to accomplish the task and they do it far
> simpler through field excitation control.

Hello Richard,

Even with your redefined version of matching, individual generating
stations don't explicitly match to the load reactance or (certainly
not) load resistance. A little generation 101. (This goes a little
beyond the scope of discussion, but I throw it out because I think it's
interesting.):

Generators operate in two modes: Isochronous (single generator
supplying local bus) and parallel (multiple generators in parallel;
connected to a grid).
The operator has two main controls: Steam (or whatever) flow to the
turbine or other driver, and current to the field.

In the isochronous mode, varying steam flow causes the speed of the
generator to change. It also varies the amout of power delivered. In
the parallel mode, the generator can't measurably push the speed of the
grid, so increasing steam flow only increases the electrical power
output.

In the isochronous mode, varying field current changes the terminal
voltage of the generator. In parallel mode, varying field current
can't significantly change grid voltage. But it does change the
reactive power output (MVAR or kVAR) of the generator, as you said.

The normal mode of operation for a large generator is in parallel with
the grid, so the operator is using steam (diesel, water, hamsters,
etc.) to regulate real power output and field current to regulate
reactive power output.

Now some anecdotal stuff about how generators are operated. The system dispatcher requests individual generators to adjust their power and VARs to match load. This isn't impedance matching, it's simply supplying the demand. In the case of VARs, the goal is both to supply the demand and to equalize voltage across the system, not to cause any kind of mathematical match between the generator's internal X and the system's X. Oh yeah, I said earlier that individual generators don't appreciably affect grid voltage. That's true, but locally they do have an effect, like tent poles in a big canvas. So the local stations are both supplying their share of the total reactive load and propping up voltage in their area. (The operator increases VAR output by taking his excitation switch to the "raise voltage" position.)

Anyway, I digressed from my anecdotal stuff. At my plant, the generator puts out 1050 MW 24/7, but MVAR may vary between 0 (or slightly negative) and 200 MVAR. So we're not matching to any specific impedance, but supplying load and maintaining voltage.

A story transmission guys like to tell is how they may use open ended transmission lines as a kind of capacitor bank. Say there's a line 100 miles long from my plant to somewhere that's not needed to carry load. The system controller might connect it at my plant's end but leave the breakers open at the far end. A line has both capacitive and inductive reactance of course, but when unloaded, the capacitive dominates. So the trick of the trade is to use it to supply reactive MVARs. The point of the story in this context is that the controller isn't concerned about SWR on this extremely mismatched line.

Another possibly relevant story. We connect our emergency diesel generator to the grid for testing and load it to about 3000 kW and typically from 0 to 100 kVAR. But to fully test the excitation system, the kVAR is at some point raised to 1400. The point being that the generator can be operated anywhere within its rating, with no need to match to any mysterious impedances out there in the world. Makes sense when you think about it. Who would want a generator that was constrained to operate at some fixed ratio of real to reactive power?
73--Nick, WA5BDU

> 73's
> Richard Clark, KB7QHC

# 3603. Re: Simple, cheap antenna for portable use.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-13 16:14:10 UTC
From: dt@dt.prohosting.com
Message-ID: <ur7lujhv1.fsf@dt.prohosting.com>
Source record: 85299

For portable operation in the 14-30 MHz range, I use a small, handheld transmitting loop. Here is a web page describing it and how to build one from inexpensive materials. The page also links to other pages with good information on loops.

http://dt.prohosting.com/hacks/antenna/magloop.html

I chose the loop because it is actually possible to operate while walking around. Obviously if you are able to erect a larger antenna at your operating site, you would be able to get better performance. My loop is about 30% efficient at 14 MHz, theoretically delivering about one S-unit less than a half wave dipole.

David
http://www.qrz.com/n5izu

# 3604. Re: Newbie low-brain question re: fm stereo broadcast antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-13 16:45:18 UTC
From: icebox500@gmail.com
Message-ID: <1102956318.433236.316540@z14g2000cwz.googlegroups.com>
Source record: 85302

Excellent. I appreciate all the feedback so far.... BIG horse!

# 3605. How good is the 2.4GHz video sender/receiver?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-13 17:20:29 UTC
From: ernest <ernestsiu@yahoo.com>
Message-ID: <1102958429.437701.225160@c13g2000cwb.googlegroups.com>
Source record: 85303

For all you wireless experts out there... I'm talking about the retail off-the-shelf 2.4GHz video sender-receiver from RadioShack and places alike. How good are they? Specific questions:

- Do they interfere with household powerlines? What if there's a lot of them? What about flurencent light?
- How good are they going thru walls? Concrete walls?
- Do they bounce off physical objects? Like people walking thru the signal path?

I'm thinking of deploying them for a live cast of video cam to a TV in another room in a building. The distance is not great, probably just 50-70 feet. But the problem is the path way is a z shape corridor so that non-existence line of sight has to go thru multiple concrete walls and possible corners....

I'm thinking about using coax using RF modulation if this is not possible.

Ernest

# 3606. Re: AM radio reception inside passenger planes?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-13 17:20:39 UTC
From: "J.Hoekstra" <fam-j.hoekstra@zonnet.nl>
Message-ID: <6444e$41bdcfac$513b9f02$3630@news1.zonnet.nl>
Source record: 85300
Cross-posted to: rec.travel.air,rec.radio.amateur.antenna,sci.electronics.equipment

Reception of radiosignals inside a Faradaycage is limited to frequencies
that are smaller then the holes in the cage.
"Geoff Glave" <nospam@nospam.com> schreef in bericht
news:HxHud.9448$eb3.8331@clgrps13...
> > Any explanation for this?
>
> FM radio generally operates at longer range than AM radio, however it's
> limited to line-of-sight. However, when you're 40,000 feet up you can
"see"
> a lot of transmitters hence the FM signals.
>
> Cheers,
> Geoff Glave
> Vancouver, Canada
>
>

# 3607. Re: Strange question about SWR on HV lines

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-13 18:14:56 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10rrn154v3s7g81@corp.supernews.com>
Source record: 85304

Thanks very much for the interesting and informative tutorial from
someone in the industry. I have one question:

Nick wrote:
> . . .
> Another possibly relevant story. We connect our emergency diesel
> generator to the grid for testing and load it to about 3000 kW and
> typically from 0 to 100 kVAR. But to fully test the excitation system,
> the kVAR is at some point raised to 1400. . .

If your customers' loads were, for the sake of argument, purely
resistive as seen at your power plant output, then the voltage and
current would be in phase at that point. But in order to make your
generator produce "reactive power", the voltage and current have to be
forced out of phase at the generator. How is this resolved? Is that
reactive power "delivered" to (actually swapped back and forth between)
other generators in the system -- that is, do the other generators in
the system shift their own phase angles so that the V and I can be at
some angle other than zero at your generator output (and, necessarily,
also at the outputs at other generators in the system) yet in phase at
your customers' loads? Or do you have some local bank of reactance that
you can switch in to feed the "reactive power" back and forth to when
you run this test?

Roy Lewallen, W7EL

# 3608. Re: Antenna Tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-13 18:24:56 UTC
From: Bob Miller <rmiller47@satx.rr.com>
Message-ID: <temrr0dsjtog6o1el4vd5ldpdniuunculi@4ax.com>
Source record: 85305

On 13 Dec 2004 04:11:07 -0800, "JimK2TL@gmail.com" <JimK2TL@gmail.com>
wrote:

>Hello
>Thank you for that link..I was not aware of those products!..Maybe I
>should subscribe to the RSGB magazine, Hi .
>I don't like MFJ products and the Palstars are very expensive. I will
>seriously look at the Linear Amp products.
>Do you have any experience with them, or know where I can get a product
>review?
>Thanks!

I think you're going to have to make a choice between mfj products
with "okay" components and reasonable prices, versus much higher
prices for a Palstar (or Linear Amp) tuner with deluxe components like
they used in the old days. There's not much in between.

FWIW, my "wretched" mfj 989c T-type tuner easily gives a 1:1 match on
an 80 meter-w/ladderline dipole on all bands between 80 & 10 meters.
Mfj also makes a couple of balanced-line tuners, one in the $200
range, and the other in the $500 range.

THe only alternative I know, Ten Tec sells their variable caps and
variable inductors that they use in their tuner as open stock items.
You could breadboard your own tuner with one of the easily obtainable
circuits on the internet for a balanced design. (Do a Google on
Richard Measures.)

Surplus Sales of Nebraska also has a plethora of variable caps &
inductors...

bob
k5qwg

# 3609. Re: Strange question about SWR on HV lines

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-13 18:26:44 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <k3grr09crpc0hdefui243be73vd55n3aol@4ax.com>
Source record: 85306

On 13 Dec 2004 07:33:28 -0800, "Nick" <wa5bdu@yahoo.com> wrote:
> individual generating
>stations don't explicitly match to the load reactance or (certainly
>not) load resistance.

The conjugate argument is unnecessary and in error as a response to my posting.

>In the isochronous mode, varying field current changes the terminal
>voltage of the generator. In parallel mode, varying field current
>can't significantly change grid voltage. But it does change the
>reactive power output (MVAR or kVAR) of the generator, as you said.

This is matching explicitly. Not quantifying the load does not make it something other than R ï¿½iX Ohms

When quantified, it would undoubtedly lead to very small Rs and Xs, but all the while, the angles they resolve to are always significant.

In every sense of the term Matching, there is not a jot of difference between these applications (AC/RF) except frequency and magnitudes of voltage and current (and not always that).

>This isn't impedance matching, it's simply supplying the demand.

Absolutely no difference between applications.

>not to cause any
>kind of mathematical match between the generator's internal X and the
>system's X.

Not demonstrated, in fact your entire recitation argues to the contrary. My Power Transmission handbooks say quite explicitly that manual or automatic operation attends to the phase shift by necessity. Even if you don't calculate any quantified value it remains as a mismatch until intervention.

Trying to draw this back into the Conjugate is, again, a misread of the distinctions between Conjugate and Z Matching. The two are frequently mixed in discussion (through error), but they are not the same.

>So we're not matching to any specific
>impedance, but supplying load and maintaining voltage.

This statement is simply unquantified Matching.

>A story transmission guys like to tell is how they may use open ended
>transmission lines as a kind of capacitor bank. Say there's a line 100
>miles long from my plant to somewhere that's not needed to carry load.
>The system controller might connect it at my plant's end but leave the
>breakers open at the far end. A line has both capacitive and inductive
>reactance of course, but when unloaded, the capacitive dominates.

This is classic matching technique at ANY frequency and has been part
of the canon for more than 100 years.

>So
>the trick of the trade is to use it to supply reactive MVARs. The
>point of the story in this context is that the controller isn't
>concerned about SWR on this extremely mismatched line.

Actually, the concern is quite fundamental and has also been part of
the canon for more than 100 years.

>Who would want a generator that was
>constrained to operate at some fixed ratio of real to reactive power?

Hi Nick,

Who would want a generator that was constrained to supply only
toasters? Such strawmen arguements can be lined up from here to the
moon.

One of my Power distribution handbooks (ca. 1907) is not shy to the
matter of Generators seeing the products of mismatches:
"Thus a wave passing from one part of a circuit to another
having a greater ratio of inductance to capacity will develop
an increased voltage and decreased current. This
explains the breaking down of windings, due to
surges entering them."

I don't have to say SWR for it to be evident in the nature of the
description above. I don't have to say Z matching for it to be
evident in the nature of the corrective action. I don't have to say X
for it to be evident in the myriad of phase drawings and calculations
that are offered page after page.

The old practices could measure Gamma or Rho as we describe it in this
forum. Calling it VAR does not make it a mysterious process confined
to 50/60 Hz, it is simply a term that describes the same thing and
follows the same dynamics and is reduced by the same operations. We
shift the phase using a variable capacitor or a variable inductor. In
the plant the same thing is done through adjusting field excitation
(or any number of tricks that are available to the RF craft too). The
trig is identical as are the results.

73's
Richard Clark, KB7QHC

# 3610. Re: Browser

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-13 18:55:04 UTC
From: art <aunwin@insightbb.com>
Message-ID: <1102964104.547285.270170@c13g2000cwb.googlegroups.com>
Source record: 85307

I once made capacitors using flourescent tubing that comes in a variety
of shapes including trobone. I coated them with epoxy plus added
aluminum wrapping foil to the outside.
Used a series of straight forms once for a three element yagi where
the capacitors resided inside the boom and was driven by a single
stepping motor to get linear movement. for resonace/frequency change.
The arrangement worked quite well despite the fact I used a aluminum
boom !.
Art

## 3611. Re: AM radio reception inside passenger planes?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-13 19:52:25 UTC
From: Bob Myers <nospamplease@address.invalid>
Message-ID: <Zpmvd.4283$km1.3349@news.cpqcorp.net>
Source record: 85308
Cross-posted to: rec.travel.air,rec.radio.amateur.antenna,sci.electronics.equipment

"Some Guy" <Some@guy.com> wrote in message news:41BB8C6A.FD42C1E7@guy.com...

> You guys are acting as if the engines and flight control surfaces of
> an aircraft are intimately tied to the plane's radio receiver, and the
> slightest odd or out-of-place signal that it receives is enough to
> send any plane into a tail spin.

Not at all; however, there IS obviously a connection between
various flight control functions (such as, say, the autopilot) and
the information given by the avionics (esp. "nav" radios using
ground-based sources such as VORs, etc.). It's not going to
"send any plane into a tail spin", but it can certainly cause some
problems.

> All this while the air travel industry is considering allowing
> passengers to use their own cell phones WHILE THE PLANES ARE IN FLIGHT
> by adding cell-phone relay stations to the planes and allowing any
> such calls to be completed via satellite. So I guess the feeble
> radiation by my FM radio (powered by 2 AAA batteries) is enough to
> cause a plane to dive into the ocean, but the guy next to me putting
> out 3 watts of near-microwave energy is totally safe.

You DO realize that these are on very different frequencies, and
that the emissions of an FM superheterodyne radio are very
likely to fall right in the aviation band, don't you? Hint: if you have
to go look up "superheterodyne" to understand this question, I
have serious doubts regarding your qualifications to comment on it.

> Getting back to the original question (poor to non-existant AM
> reception), I understand the idea of aperature and long wavelenths of
> AM radio and the size of airplane windows - but what about the effect
> of ALL the windows on a plane? Don't they create a much larger
> effective apperature when you consider all of them?

No. It's not the TOTAL area of the "apperatures" [sic] that
is important, it's the size of the individual openings. If this were
not so, then a conductive mesh could never be effective as a
shield.

> And since the
> plane isin't grounded, isin't the exterior shell of a plane
> essentially transparent to all RF (ie it's just a re-radiator) because
> it's not at ground potential?

No. "Ground potential" has absolutely nothing to do
with it. Hint: what do you think is the RF environment

within a perfectly conducting sealed enclosure, with
respect to outside sources, even if that enclosure is
completely isolated from any other surface or conductor?

Bob M. (KC0EW)

# 3612. Re: AM radio reception inside passenger planes?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-13 20:00:42 UTC
From: Bob Myers <nospamplease@address.invalid>
Message-ID: <Kxmvd.4285$Cq1.1143@news.cpqcorp.net>
Source record: 85309
Cross-posted to: rec.travel.air,rec.radio.amateur.antenna,sci.electronics.equipment

"Charles Newman" <charlesnewman1@comcast.net.spammers.will.be.shot.on.sight>
wrote in message news:yqidnc_QoZSSMiHcRVn-2Q@comcast.com...
> What is a Pitot tube anyway? I have seen a switch for most aircraft
> in Flight Simulator marked "Pitot Heat", what is that?

A pitot tube is a tube which protrudes from the aircraft
body into the path of the air through which the aircraft is
flying. They are used for such things as determining airspeed
(which is the speed of the aircraft through the air, not over
the ground), and in some meteorological conditions are
prone to becoming clogged with ice. Hence, "pitot heat"
is just that - the switch in question controls a heater (most
often, electric) built into the pitot tube, which keeps in clear
of ice. Losing pitot pressure due to having the damn thing
plugged up is generally considered a Bad Thing, and
unfortunate events have been known to follow such an
occurence.

Bob M.

# 3613. Re: How good is the 2.4GHz video sender/receiver?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-13 20:12:56 UTC
From: dplatt@radagast.org
Message-ID: <10rrtu87cpj78f7@corp.supernews.com>
Source record: 85310

In article <1102958429.437701.225160@c13g2000cwb.googlegroups.com>,
ernest <ernestsiu@yahoo.com> wrote:

>For all you wireless experts out there... I'm talking about the retail
>off-the-shelf 2.4GHz video sender-receiver from RadioShack and places
>alike. How good are they? Specific questions:
>
>- Do they interfere with household powerlines? What if there's a lot
>of them? What about flurencent light?
>- How good are they going thru walls? Concrete walls?
>- Do they bounce off physical objects? Like people walking thru the
>signal path?

The 2.4 GHz signal has a very short wavelength, and tends to bounce
around from various surfaces quite a bit. Multipath interference is a
very real issue. Moving the transmitting or antenna a few inches can
make a big difference in the signal quality.

>I'm thinking of deploying them for a live cast of video cam to a TV in
>another room in a building. The distance is not great, probably just
>50-70 feet. But the problem is the path way is a z shape corridor so
>that non-existence line of sight has to go thru multiple concrete walls
>and possible corners....

My own experience suggests that you'd be pushing things quite hard
under those circumstances, and would likely not get acceptable signal
quality.

I used one of the off-the-shelf 2.4-gig senders for a year or so, to
retransmit a video signal from a TiVo recorder to a TV in a bedroom
about 30' away. Signal quality was tolerable but not great...
definitely not as clean as a coax could provide. The signal was going
through several sheetrock walls and a cabinet door or two - this was
enough to weaken the signal quite a lot, compares to a straight
line-of-sight path.

If your signal is going to have to go through concrete walls
containing steel rebar, and is going to have to go about twice the
distance I was dealing with, I think you're going to have a terribly
weak signal at the end of the path.

The other problem is one of interference. These devices operate in
the 2.4-gig ISM band, which is becoming extremely crowded these
days... especially with 802.11b/802.11g wireless networks. No matter
which channel you select, you're likely to find that your video image
suffers from visible interference due to 802.11b and some wireless

phones...

... and the use of any microwave oven, anywhere within hundreds of
feet, will probably wipe out the picture entirely. Microwave ovens
leak a lot of RF, and it's right in this band.

>I'm thinking about using coax using RF modulation if this is not
>possible.

I think you'll get much better results that way.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

# 3614. Re: Antenna Tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-13 20:45:37 UTC
From: Jack Painter <223bthp@cox.net>
Message-ID: <Sbnvd.6196$7p.270@lakeread02>
Source record: 85311

<JimK2TL@gmail.com> wrote
> Yes, thank you..I have been thinking about modifying an existing tuner
> with the balun on the output. The problem is that ALL components must
> be isolated from ground. I suppose I could pull that off, but it is
> not as simple as you might think, especially with a tuner that uses a
> tapped inductor in a T match. I t would probably be easier to float a
> roller inductor than a tapped inductor because of the switch. The
> caps are usually above ground already in a T match, so thats not a
> problem. I'm thinking about it, but it would be nice if there was a
> good affordable balanced tuner out there.
> Jim

Jim, your original query and subsequent comments leave a couple of questions:

1. Is an ATU desired?
2. Will it operate a balanced line? (other antennas as well?)
3. Why is isolation from ground so important to you?

Radio Works puts out some good products, one of them is the Line Isolator for just the situation you are possibly describing:

http://www.radioworks.com/PDFLineIsolator.htm

However it should be noted that this is offered by Radio Works (in my opinion) mainly because they promote the Carolina Windom style antennas, which are designed to radiate vertical components of feedline. Most antenna types, especially anything using a Balun at the feedpoint would have no such radiation on the feedline or shield. Antennas requiring good RF ground or radials would do so, those that don't still require bonding and grounding for lightning protection, at least in any area that can have lightning. So the multiple use of line isolators, and/or your insistence on having all components isolated from ground may correct RF problems that should be addressed at their cause, and at the expense of maintaining safe bonding and grounding of the station equipment for lightning protection.

As Bob Miller also added (fwiw): I use two MFJ tuners, the 962D 1.5kw air-core inductor and the 994 600w ATU "Intellituner". Both perform very well for me on end fed wires and dipoles. Isolating anything in my station from ground is out of the question, as it should be for anyone who remains connected to either or both power and antennas during thunderstorms.

73,
Jack Painter
Virginia Beach VA

# 3615. Re: W4RNL?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-13 21:10:12 UTC
From: ab <abracadabra@hotmail.com>
Message-ID: <Rynvd.878$QM5.754@reader1.news.jippii.net>
Source record: 85312

no problem getting there
cheers,
cb

"ON5MJ" <my_call_sign@skynet.be> wrote in message
news:41bd4ece$0$29528$ba620e4c@news.skynet.be...
> A few weeks ago I have sent him an e-mail at
cebik@cebik.com and he replied
> me, but at the same time the main page of his web site
was already off. So
> maybe you can try to question him.
>
> ON5MJ
>
>

# 3616. Re: Antenna Tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-13 21:22:58 UTC
From: jgboyles@aol.com
Message-ID: <20041213162258.22033.00001871@mb-m06.aol.com>
Source record: 85313

>THe only alternative I know, Ten Tec sells their variable caps and
>variable inductors that they use in their tuner as open stock items.

MFJ will sell the roller inductor they use in their tuners. I bought one at the MFJ exhibit at a hamfest. They indicated that they will sell pretty much any part of their products if you call and let them know what you want. I built my tuner out of the MFJ inductor and Ten Tec capacitors. It's my MFJ Tec tuner. Parts cost around $150, works well and has handled the legal limit.
73 Gary N4AST

# 3617. Re: Strange question about SWR on HV lines

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-13 21:33:51 UTC
From: richardharrison@webtv.net
Message-ID: <6992-41BE0ABF-74@storefull-3257.bay.webtv.net>
Source record: 85314

Richard Clark wrote:
"The trig is identical as are the results."

Yes, but the equipment often takes different forms. The best place to get rid of circulating current in the transmission line is at the load, before it causes additional line loss.

For signal lines a capicitance or an inductance often is formed by a line stub.

For power lines a capacitance is often produced by an over-excited synchronous motor or motors. Some constant speed loads are suitable for sychronous machines. Such a machine drawing a leading current has been called a rotary capacitor. Its current draw and capacitance are controlled by its excitation.
Most induction motors and industrial loads have lagging currents. Power factor correction requires the production of an offsetting leadng current.

Best regards, Richard Harrison, KB5WZI

# 3618. Re: Antenna Tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-13 22:46:31 UTC
From: "JimK2TL@gmail.com" <JimK2TL@gmail.com>
Message-ID: <1102977991.367232.185090@z14g2000cwz.googlegroups.com>
Source record: 85315

Hello Jack
Yes, the tuner is required, because I use a balanced line to feed a multiband doublet.
The issue is placeing a 1:1 balun at the input of the tuner, rather than the output. In order to do that with an existing T match type tuner, all components must be isolated from ground. This is uncommon, because a typical T match grounds one side of the inductor.
I have read that a 1:1 balun at the input of a T match is desireable over a 4:1 at the output.
Thanks

## 3619. Re: Antenna Tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-13 22:48:34 UTC
From: "JimK2TL@gmail.com" <JimK2TL@gmail.com>
Message-ID: <1102978114.808269.257210@c13g2000cwb.googlegroups.com>
Source record: 85316

Interesting..what did you use for a cabinet? I have been looking
around for one that might fit the bill.

# 3620. Re: Strange question about SWR on HV lines

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-13 23:49:07 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <la8sr0tjuntno2n93ckmaq79ec2od177o7@4ax.com>
Source record: 85317

On Mon, 13 Dec 2004 15:33:51 -0600, richardharrison@webtv.net (Richard Harrison) wrote:

>Yes, but the equipment often takes different forms. The best place to
>get rid of circulating current in the transmission line is at the load,
>before it causes additional line loss.

Hi Richard,

One of my old references offers support to this in the terms you expressed following this quote above:
"Power factor correction may be made on transmission lines, whereby the voltage regulation may be materially improved, the generating capacity increased and the copper losses reduced. This correction may be made by the over and under excitation of synchronous apparatus at the receiving end of the line. When used for this purpose exclusively, such apparatus is called a synchronous condenser. ...its sole function being to regulate the power-factor...."

The difference between this matching to the load, and say Gamma matching to an antenna is in name only - same problem for both disciplines, same approach to a solution. It stands to reason that when this technique is performed at the source end, that it is still the same "synchronous condenser" metaphor; hence we have electro-mechanical artifices to construct a phase offset to a reactive load.

If everyone could afford gold-plated rigs, then they might consider paying for the same artifice of the "synchronous condenser" metaphor in place of their tuners. In this regard they would be using Gyrators (artificial reactors). Through the use of feedback in an operational amplifier dedicated solely to this purpose, you can invert the use of a capacitor to appear to be an inductor (or t'other way 'round). Here, this particular circuit probably outnumbers all examples of tuners AND power line correction (it is exceedingly commonplace in switchers).

73's
Richard Clark, KB7QHC

# 3621. Re: FS 8 pill Linear

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-14 00:15:23 UTC
From: Pat Stevens <patstevenson@yahoo.com>
Message-ID: <vgqvd.7852$IZ4.6170@news01.roc.ny>
Source record: 85318
Cross-posted to: rec.radio.cb,rec.radio.amateur.policy,rec.radio.amateur.antenna,alt.ham-radio.vhf-uhf,rec.radio.amateur.misc

"WA3MOJ" <WA3MOJ@home.com > wrote in message
news:cpegt801k76@drn.newsguy.com...
> You fucking pussy! My 32 pill will make you sound like a mud duck!
>
>
> --
> Young Men are delicious,
> Healthy, virile and strong,
> With smooth skin, a firm fleshy arse,
> And hair growing where it belongs.

You must be related to Bruce.

## 3622. Re: W4RNL?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-14 00:35:38 UTC
From: Butch <lynyrd@cableone.net>
Message-ID: <10rsdbern3kj45e@corp.supernews.com>
Source record: 85319

Yep, just now.

KF5DE

Floyd Sense wrote:
> Anyone else able to get to www.cebik.com?
>

# 3623. Re: Simple, cheap antenna for portable use.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-14 01:05:58 UTC
From: art <aunwin@insightbb.com>
Message-ID: <1102986358.926736.89310@z14g2000cwz.googlegroups.com>
Source record: 85320

David
I reviewed your page to find out how the capacitor was made
and how it was driven. Unfortunately I could not figure it out!
One thing I thought about as I read the page was the soldered
joints and its added resistance. It would be interesting if some time
you could use some aluminum foil preferably with adhesive backing
to go from one end of the loop to the other in a continuous strip to
gauge
what difference the jointing made on the resonant frequency.
Adhesive tape can be found at any hardware store in the heating and
cooling
ducting section.
Regards
Art

# 3624. Re: Newbie low-brain question re: fm stereo broadcast antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-14 01:08:07 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <_t6dnSr5WrhyoSPcRVn-iA@comcast.com>
Source record: 85321

<icebox500@gmail.com> wrote in message
news:1102908605.491530.205800@c13g2000cwb.googlegroups.com...
>I have a small 1 watt transmitter. I have a simple goal of using it to
> cover my horse so I can tune the same music throughout.
>
> I have tried a variety of antennas to get it to work, but have been
> largely unsuccessful. I guess I don't know what I'm doing!
>
> My latest and best antenna is a j-pole I built with copper pipe and
> mounted inside my garage. No matter where I place it in my house though
> I am simply unable to create a quality signal that carries more than 50
> feet.
>
> If anyone is willing to give me some tips I'd be very appreciative.
> James
>
I can think of a couple of things. Firtst, you may have insulation with a metal backing between the house and garage; not good. Also, what is the polarization of the receiving antennas? If they are horizontal, you would be better off with a horizontal transmitting antenna. You might try a dipole in the attic, under the insulation. That is, on the ceiling of the room below. If the insulation has a metal backing, take it off from directly above the antenna. This should be in the center of the house. Basement might work just as well. BTW. I don't think your gizmo puts out 1W. That would easily go a mile. Probably 1 - 10 mW. Lastly, make sure the transmitter is on frequency. Going 200 KHz up or down in either direction should be equally bad.

Tam/WB2TT

# 3625. Re: Strange question about SWR on HV lines

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-14 02:28:45 UTC
From: Nick Kennedy <wa5bdu@yahoo.com>
Message-ID: <10rsnfutitb5r3d@corp.supernews.com>
Source record: 85222

Hello Roy,

Good question and one I had considered addressing in my already over long post. In general "the grid" is viewed as an idealized source or sink of both real and reactive power. So we can theoretically supply it as much power as we wish, and supply or take in as much reactive power as we wish. No reactive load banks needed.

So when I said generation (of both watts and VARs) is matched to demand, that's not necessarily *exactly* the case when it comes to VARs, as you guessed. Generators can both supply and absorb them to meet the need, and the net VAR output doesn't necessarily have to equal whatever the customers are offering as the load at any given time. BTW, in the power biz, we have the convention of "supplying", "outgoing", or positive VARs to describe reactive power out from the generator to a lagging (inductive) load and incoming, or negative VARs to leading (capacitive) loads. Incidentally, real power must flow *out* only. We have reverse power (anti-motoring) relays to trip the unit off line if this rule is broken.

The tendency of generators to exchange VARs when in parallel leads to a stability problem in excitation control. A slight mismatch in excitation systems can lead to a huge exchange of VARs and resulting overcurrent. So excitations system incorporate what is known as a "droop" feature which essentially provides a negative feedback based on reactive current. Increased VARs out tends to reduce excitation, stabilizing the system. Droop is typically switched "off" in isochronous (one generator isolated) mode. There's an analogous "droop" feature on the governor for speed control when in parallel.

Not sure if your question included this, but it's interesting to consider just how a generator produces out of phase current when connected to what we're essentially considering to be equivalent to an ideal voltage source, since by definition the generator's terminal voltage must equal that of the source (grid). As I see it, the key is that the generated voltage, Eg, is n ot the same as the generator's terminal voltage, Et. There's a drop across the armature reactance, so Et equals Eq minus that drop. Interesting that out of phase currents produce drops in phase with Eg ... Well, I thought so anyway. Current is Et minus Eg divided by Za (armature impedance). Changing excitation changes the magnitude of Eg (Et is fixed by the grid and so is an anchor point). By fooling with the phasors, I think you can see how changing excitation changes the phase angle and therefore controls VARs.

How *power* is controlled is beyond the scope of this discussion (and maybe of my understanding). But it actually is related to the angle of the rotor's physical position relative to the rotating field of the armature. That angle is dependent upon the torque supplied by the driver.

73--Nick, WA5BDU
in Arkansas

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:10rrn154v3s7g81@corp.supernews.com...
> Thanks very much for the interesting and informative tutorial from
> someone in the industry. I have one question:
>
> Nick wrote:
> > . . .
> > Another possibly relevant story. We connect our emergency diesel
> > generator to the grid for testing and load it to about 3000 kW and
> > typically from 0 to 100 kVAR. But to fully test the excitation system,
> > the kVAR is at some point raised to 1400. . .
>
> If your customers' loads were, for the sake of argument, purely
> resistive as seen at your power plant output, then the voltage and
> current would be in phase at that point. But in order to make your
> generator produce "reactive power", the voltage and current have to be
> forced out of phase at the generator. How is this resolved? Is that
> reactive power "delivered" to (actually swapped back and forth between)
> other generators in the system -- that is, do the other generators in
> the system shift their own phase angles so that the V and I can be at
> some angle other than zero at your generator output (and, necessarily,
> also at the outputs at other generators in the system) yet in phase at
> your customers' loads? Or do you have some local bank of reactance that
> you can switch in to feed the "reactive power" back and forth to when
> you run this test?
>
> Roy Lewallen, W7EL

# 3626. Re: Antenna Tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-14 03:29:39 UTC
From: Jack Painter <223bthp@cox.net>
Message-ID: <E6tvd.6659$7p.4476@lakeread02>
Source record: 85223

<JimK2TL@gmail.com> wrote
> Hello Jack
> Yes, the tuner is required, because I use a balanced line to feed a
> multiband doublet.
> The issue is placeing a 1:1 balun at the input of the tuner, rather
> than the output. In order to do that with an existing T match type
> tuner, all components must be isolated from ground. This is uncommon,
> because a typical T match grounds one side of the inductor.
> I have read that a 1:1 balun at the input of a T match is desireable
> over a 4:1 at the output.
> Thanks

Hi Jim,

I can't imagine what's possibly gained by 1:1 in front of the tuner v. 4:1 (when applicable, some antennas recommend this, including for twin-lead) after it. Can you recall the writing you saw the recommendation to isolate from ground before the tuner? I just don't see what it will do for you, but as I said there is at least one good reason not to do so. Ungrounded and especially unbonded equipment should be disconnected from antennas and power supplies before the chance of a thunderstorm. An exception could be if you totally isolate the antennas from ground, and no balun can safely do that. But a similar principle called a high voltage isolation transformer could, and so could a fiber optic isolation transformer. Both are pretty expensive alternatives to staying with generally accepted lightning protection plans for the shack. Even if you intend to toss the feed out the window before a storm, I'm still curious what is gained by a 1:1 between transceiver and transmatch.

73,
Jack

# 3627. Re: Loop Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-14 03:50:57 UTC
From: "William H. O'Hara, III" <whoohara@yahoo.com>
Message-ID: <Xns95BEE88AEB8F8AX2A3DA5M1512AODKAMO@216.196.97.142>
Source record: 85224

I did quickly in the middle of the night. I will
look it over and see I can find some problem with
the wires. I used EZNEC demo 4.0.

Thanks
Bill

> Maybe you should check your connections and try again. For
> what it's worth, the pattern is like most large horizontal
> loops, except for two large lobes in the direction of the
> top corners of the tee.
>
> Ken Fowler
>

# 3628. Re: W4RNL?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-14 04:40:33 UTC
From: Irv Finkleman <finkirv@shaw.ca>
Message-ID: <41BE6ECA.3DCE0244@shaw.ca>
Source record: 85225

Butch wrote:
>
> Yep, just now.
>
> KF5DE
>
> Floyd Sense wrote:
> > Anyone else able to get to www.cebik.com?
> >

Must have been a temporary glitch on the server. It's fine now.

Irv VE6BP
--
---
Diagnosed Type II Diabetes March 5 2001
Beating it with diet and exercise!
297/215/210 (to be revised lower)
58"/43"(!)/44" (already lower too!)
---
Visit my HomePage at http://members.shaw.ca/finkirv/index.html
Visit my Baby Sofia website at http://members.shaw.ca/finkirv4/index.htm
Visit my OLDTIMERS website at http://members.shaw.ca/finkirv5/index.htm
---
Irv Finkleman,
Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
Calgary, Alberta, Canada

## 3629. Re: W4RNL?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-14 06:05:11 UTC
From: kelly@dvol.com
Message-ID: <1103004311.598038.304210@z14g2000cwz.googlegroups.com>
Source record: 85173

Floyd Sense wrote:
> Anyone else able to get to www.cebik.com?
>
> --
> 73, Floyd - K8AC

He's back online.
http://www.cebik.com/radio.html

. . . whew . .

w3rv

# 3630. Re: Simple, cheap antenna for portable use.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-14 06:47:24 UTC
From: nm5k@wt.net
Message-ID: <1103006844.496328.141310@z14g2000cwz.googlegroups.com>
Source record: 85174

Problem is, I have no idea how to afix a 16 foot vertical antenna to
the top
of my little four cylinder car!>>>>>>>

Why do you need the extra large whip? A normal mobile antenna would be
quite
efficient on those bands. Thats what I'd do, if it were me...Not to
mention
my mobile antenna is good for 80-10...Give you something to do at night
when
the high bands are dead..MK

# 3631. Re: I PASS MY TEST ALSO THE EASY WAY.way to go wildboy74

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-14 08:30:52 UTC
From: freeradio55@webtv.net
Message-ID: <28898-41BEA4BC-308@storefull-3272.bay.webtv.net>
Source record: 85226

the radio war is not over yet .we will win i just bought me
a ten tec radio with ctcss repeater tone board in it where i can use the
10 repeaters with it .just listen out for free radio ok dude anyway 73s
also ass hole

# 3632. Re: Antenna Tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-14 10:31:11 UTC
From: "JimK2TL@gmail.com" <JimK2TL@gmail.com>
Message-ID: <1103020271.521602.275870@f14g2000cwb.googlegroups.com>
Source record: 85176

Here is a quote from one site:
Of interest is the 1:1 balun mounted at the input of the tuner (rather than the output where it would be exposed to highly reactive loads). The various components are floated above chassis ground. When properly adjusted, the balun sees a 50 ohm load both at the input from the transmitter and at the output. Its not a perfect replacement for the link coupled circuits of yesteryear, but in my experience so far, it perfoms significantly better than competing tuners employing 4:1 baluns. I've tried a few of these matching networks and not one of them provided an output to tuned feeders even close to being balanced. The AT4K-BAL is a leg up on this account.

There are dozens of other sites, but it is all the same info..including several ARRL articles.
The issue is not lightning protection, as you suggested.
Thanks

# 3633. Re: I PASS MY TEST ALSO THE EASY WAY.way to go wildboy74

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-14 11:56:39 UTC
From: Da-man <Socialwork@sucks.com>
Message-ID: <WzAvd.12302$Ae.10431@newsread1.dllstx09.us.to.verio.net>
Source record: 85227

"H N" <freeradio55@webtv.net> wrote in message
news:28898-41BEA4BC-308@storefull-3272.bay.webtv.net...
> the radio war is not over yet .we will win i just bought me
> a ten tec radio with ctcss repeater tone board in it where i can use the
> 10 repeaters with it .just listen out for free radio ok dude anyway 73s
> also ass hole
>

Well, at least you know your name! Dude, you lose already, it's a matter of
time. Tick, tick,tick,tick

DM

# 3634. Re: W4RNL?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-14 12:29:16 UTC
From: Floyd Sense <fsense@copper.net>
Message-ID: <41bedce4_5@newsfeed.slurp.net>
Source record: 85228

Thanks to all who replied on this. I received a return email from W4RNL today stating that "the server's backbone went down". Had me worried there for a while!

K8AC

"Floyd Sense" <fsense@copper.net> wrote in message news:41bcdf9e_1@newsfeed.slurp.net...
> Anyone else able to get to www.cebik.com?
>
> --
> 73, Floyd - K8AC
>

# 3635. Re: Strange question about SWR on HV lines

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-14 13:59:24 UTC
From: Nick <wa5bdu@yahoo.com>
Message-ID: <1103032764.250372.64740@z14g2000cwz.googlegroups.com>
Source record: 85180

Richard Clark wrote:

>
> The conjugate argument is unnecessary and in error as a response to
my
> posting.
>

Good. Glad we've come to an agreement on that one.

> >In the isochronous mode, varying field current changes the terminal
> >voltage of the generator. In parallel mode, varying field current
> >can't significantly change grid voltage. But it does change the
> >reactive power output (MVAR or kVAR) of the generator, as you said.
>
> This is matching explicitly. Not quantifying the load does not make
> it something other than R ±iX Ohms
>
> When quantified, it would undoubtedly lead to very small Rs and Xs,
> but all the while, the angles they resolve to are always significant.
>
> In every sense of the term Matching, there is not a jot of difference
> between these applications (AC/RF) except frequency and magnitudes of
> voltage and current (and not always that).
>
> >This isn't impedance matching, it's simply supplying the demand.
>
> Absolutely no difference between applications.
>

Yes there is. The operator of the generator has the freedom to adjust
power output from 0 to 100% of rated and VAR output between the maximum
incoming and outgoing rated values. No matching required. I sense
that you are beginning to argue my side of the case for me. Please
give me appropriate credit.

> >not to cause any
> >kind of mathematical match between the generator's internal X and
the
> >system's X.
>
> Not demonstrated, in fact your entire recitation argues to the
> contrary. My Power Transmission handbooks say quite explicitly that
> manual or automatic operation attends to the phase shift by
necessity.
> Even if you don't calculate any quantified value it remains as a

> mismatch until intervention.
>
> Trying to draw this back into the Conjugate is, again, a misread of
> the distinctions between Conjugate and Z Matching. The two are
> frequently mixed in discussion (through error), but they are not the
> same.
>

Agreed; please stop bringing conjugate matching into this. You've
already accepted the fact that it doesn't apply.

> >So we're not matching to any specific
> >impedance, but supplying load and maintaining voltage.
>
> This statement is simply unquantified Matching.
>
> >A story transmission guys like to tell is how they may use open
ended
> >transmission lines as a kind of capacitor bank. Say there's a line
100
> >miles long from my plant to somewhere that's not needed to carry
load.
> >The system controller might connect it at my plant's end but leave
the
> >breakers open at the far end. A line has both capacitive and
inductive
> >reactance of course, but when unloaded, the capacitive dominates.
>
> This is classic matching technique at ANY frequency and has been part
> of the canon for more than 100 years.
>

No it is not. You are making oblique reference to the use of stubs in
RF matching. In that application, the length of the stub in degrees is
critical. In the one I describe, the length of the line is random; it
is being used for its capacitance only. It could be replaced by an
equivalent capacitor to produce the same effect. The same is not true
of a matching stub.

> >So
> >the trick of the trade is to use it to supply reactive MVARs. The
> >point of the story in this context is that the controller isn't
> >concerned about SWR on this extremely mismatched line.
>
> Actually, the concern is quite fundamental and has also been part of
> the canon for more than 100 years.
>
> >Who would want a generator that was
> >constrained to operate at some fixed ratio of real to reactive
power?
>

> Hi Nick,
>
> Who would want a generator that was constrained to supply only
> toasters? Such strawmen arguements can be lined up from here to the
> moon.
>

Kind of like canons and "known for more than 100 years"? Empty
supercilious statements that say nothing?

> One of my Power distribution handbooks (ca. 1907) is not shy to the
> matter of Generators seeing the products of mismatches:
> "Thus a wave passing from one part of a circuit to another
> having a greater ratio of inductance to capacity will develop
> an increased voltage and decreased current. This
> explains the breaking down of windings, due to
> surges entering them."
>
> I don't have to say SWR for it to be evident in the nature of the
> description above. I don't have to say Z matching for it to be
> evident in the nature of the corrective action. I don't have to say
X
> for it to be evident in the myriad of phase drawings and calculations
> that are offered page after page.
>
> The old practices could measure Gamma or Rho as we describe it in
this
> forum. Calling it VAR does not make it a mysterious process confined
> to 50/60 Hz, it is simply a term that describes the same thing and
> follows the same dynamics and is reduced by the same operations. We
> shift the phase using a variable capacitor or a variable inductor.
In
> the plant the same thing is done through adjusting field excitation
> (or any number of tricks that are available to the RF craft too).
The
> trig is identical as are the results.

Finally, the use of the term VARs is not a power engineer's sly attempt
at obfuscation. It is a common and well defined term in daily use.
73--Nick, WA5BDU

>
> 73's
> Richard Clark, KB7QHC

# 3636. Re: Antenna Tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-14 14:01:44 UTC
From: "JimK2TL@gmail.com" <JimK2TL@gmail.com>
Message-ID: <1103032903.972351.73550@c13g2000cwb.googlegroups.com>
Source record: 85177

Hi
I tried to reply to your post, but it does not seem to have made it..so
here is another try:
This is a quote taken from one site:
Of interest is the 1:1 balun mounted at the input of the tuner (rather
than the output where it would be exposed to highly reactive loads).
The various components are floated above chassis ground. When properly
adjusted, the balun sees a 50 ohm load both at the imput from the
transmitter and at the output. Its not a perfect replacement for the
link coupled circuits of yesteryear, but in my experience so far, it
perfoms significantly better than competing tuners employing 4:1
baluns. I've tried a few of these matching networks and not one of them
provided an output to tuned feeders even close to being balanced. The
AT4K-BAL is a leg up on this account.
I have seen dozens of other sites with the same info, including several
ARRL articles.
Thanks

# 3637. Re: Antenna Tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-14 14:27:13 UTC
From: Jack Painter <223bthp@cox.net>
Message-ID: <6LCvd.6670$7p.5188@lakeread02>
Source record: 85229

<JimK2TL@gmail.com> wrote
> Hi
> I tried to reply to your post, but it does not seem to have made it..so
> here is another try:
> This is a quote taken from one site:
> Of interest is the 1:1 balun mounted at the input of the tuner (rather
> than the output where it would be exposed to highly reactive loads).
> The various components are floated above chassis ground. When properly
> adjusted, the balun sees a 50 ohm load both at the imput from the
> transmitter and at the output. Its not a perfect replacement for the
> link coupled circuits of yesteryear, but in my experience so far, it
> perfoms significantly better than competing tuners employing 4:1
> baluns. I've tried a few of these matching networks and not one of them
> provided an output to tuned feeders even close to being balanced. The
> AT4K-BAL is a leg up on this account.
> I have seen dozens of other sites with the same info, including several
> ARRL articles.
> Thanks
>

Your first post did make it, and I also found that reference that shed no
light, but further:

http://fermi.la.asu.edu/w9cf/articles/balun/ (quoted below)

4 Baluns on the input and output of unbalanced tuners:
Roy, W7EL, worked out the math for moving a current balun from output to
input of an unbalanced tuner using his model of a choke balun and found that
essentially nothing changed.

...the most sensible place to put a balun is on an unbalanced tuner's
output, like it is on nearly all commercial tuners, and not on its input

--

Interesting theory presented there, but does not support the wives tale
either.

And yes you can stand-by-for-fireworks if you think lightning protection
isn't an issue. Anyone that thinks "floating equipment chassis" (isolated
from ground) is a good plan, lives in a place where lighting is something
they watch only on the Discovery Channel.

73,
Jack

# 3638. Re: Antenna Tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-14 14:51:15 UTC
From: Bob Miller <rmiller47@satx.rr.com>
Message-ID: <9lutr0lrcut36jc5sia06lmvdl9uab4ud7@4ax.com>
Source record: 85230

On 14 Dec 2004 02:31:11 -0800, "JimK2TL@gmail.com" <JimK2TL@gmail.com>
wrote:

>Here is a quote from one site:
>Of interest is the 1:1 balun mounted at the input of the tuner (rather
>than the output where it would be exposed to highly reactive loads).
>The various components are floated above chassis ground. When properly
>adjusted, the balun sees a 50 ohm load both at the input from the
>transmitter and at the output. Its not a perfect replacement for the
>link coupled circuits of yesteryear, but in my experience so far, it
>perfoms significantly better than competing tuners employing 4:1
>baluns. I've tried a few of these matching networks and not one of them
>provided an output to tuned feeders even close to being balanced. The
>AT4K-BAL is a leg up on this account.
>
>There are dozens of other sites, but it is all the same info..including
>several ARRL articles.
>The issue is not lightning protection, as you suggested.
>Thanks

The few balanced tuners that are being manufactured nowadays all seem
to employ the balun on the input side. To use the words from MFJ's ad
copy for their balanced tuners:

"A 1:1 current balun is placed on the low impedance 50 input side to
convert the balanced T-Network to unbalanced operation. The balun is
made of 50 ferrite beads on RG-303 Teflonï¿½ coax to give exceptional
and efficient isolation. It stays cool even at maximum power."

Basically, the balun hooks the balanced tuner to the unbalanced output
of the transceiver.

In years past, there have been heated discussions in this group as to
whether the balun belongs on the input or output -- you could do a
Google search if you're interested.

Bob
k5qwg

# 3639. Re: FS 8 pill Linear

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-14 15:06:27 UTC
From: Contact_Guy <Contact_Guy@nospam.com>
Message-ID: <41BF0172.16172820@nospam.com>
Source record: 85231
Cross-posted to: rec.radio.cb,rec.radio.amateur.policy,rec.radio.amateur.antenna,alt.ham-radio.vhf-uhf,rec.radio.amateur.misc

If I could recommend this post I would !

Assuming those sentiments are not forged, it explains why WA3MOJ has almost 1400 look-ups at QRZ. I guess everyone can't imagine how a supposedly bright guy could be such an ass.

# 3640. Re: Antenna Tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-14 15:17:16 UTC
From: "JimK2TL@gmail.com" <JimK2TL@gmail.com>
Message-ID: <1103037436.577057.44080@c13g2000cwb.googlegroups.com>
Source record: 85178

> And yes you can stand-by-for-fireworks if you think lightning
protection
> isn't an issue. Anyone that thinks "floating equipment chassis"
(isolated
> from ground) is a good plan, lives in a place where lighting is
something
> they watch only on the Discovery Channel.
>
> 73,
> Jack

Jack
Let me assure you, my station is well grounded, Hi! I even have an abnormal passion regarding grounds.
My remark was in regarding to a "floating" balanced antenna tuner, which is not grounded anymore than is a balanced line fed doublet. Certainly everything before the tuner is well grounded. I even have a spark gap type lightning protector on the balanced feeds.
As far as the debate regarding baluns at the input or output, I would be delighted to be convinced that it either does not matter, or is better at the output..because it makes my life a lot simpler. Right now I am using about 5 feet or so of LMR400 from my unbalanced tuner to a Radio Works remote balun, terminated with 300 ohm transmitting twinlead, feeding a 40 meter doublet. Works like gangbusters.
Jim

# 3641. Re: Antenna Tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-14 15:23:45 UTC
From: "JimK2TL@gmail.com" <JimK2TL@gmail.com>
Message-ID: <1103037820.130907.68890@c13g2000cwb.googlegroups.com>
Source record: 85179

> And yes you can stand-by-for-fireworks if you think lightning
protection
> isn't an issue. Anyone that thinks "floating equipment chassis"
(isolated
> from ground) is a good plan, lives in a place where lighting is
something
> they watch only on the Discovery Channel.
>
> 73,
> Jack

Jack
Let me assure you, my station is well grounded, Hi! I even have an abnormal passion regarding grounds.
My remark was in regarding to a "floating" balanced antenna tuner, which is not grounded anymore than is a balanced line fed doublet. Certainly everything before the tuner is well grounded. I even have a spark gap type lightning protector on the balanced feeds.
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Jim

# 3642. Re: I PASS MY TEST ALSO THE EASY WAY.way to go wildboy74

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-14 15:49:59 UTC
From: Bob <bob@telnet.com>
Message-ID: <HYDvd.756201$8_6.313601@attbi_s04>
Source record: 85232

Is anybody out there forwarding any of his crap to the FCC?

"Da-man" <Socialwork@sucks.com> wrote in message
news:WzAvd.12302$Ae.10431@newsread1.dllstx09.us.to.verio.net...
>
> "H N" <freeradio55@webtv.net> wrote in message
> news:28898-41BEA4BC-308@storefull-3272.bay.webtv.net...
> > the radio war is not over yet .we will win i just bought me
> > a ten tec radio with ctcss repeater tone board in it where i can use the
> > 10 repeaters with it .just listen out for free radio ok dude anyway 73s
> > also ass hole
> >
>
> Well, at least you know your name! Dude, you lose already, it's a matter
of
> time. Tick, tick,tick,tick
>
> DM
>
>

# 3643. Re: Simple, cheap antenna for portable use.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-14 16:32:58 UTC
From: dt@dt.prohosting.com
Message-ID: <uacsgsuv9.fsf@dt.prohosting.com>
Source record: 85233

>>>>> "art" == art <aunwin@insightbb.com> writes:

art> David I reviewed your page to find out how the capacitor was
art> made and how it was driven. Unfortunately I could not figure
art> it out!

The capacitor is made in a coaxial fashion with 3/4" polyethylene "PEX" tubing as the dielectric, and copper pipe as the plates. The inner copper tube (1/2" copper repair coupling) is the stator, and the outer tube (3/4" copper repair coupling) the rotor. The rotor slides over the joint between the dielectric and the stator (3/4" copper pipe) which have the same outer diameter.

The capacitance is adjusted manually, by sliding the rotor from side to side. I am relying on the tight fit and the large amount of overlapping copper area between the rotor and its contact to keep losses low. Also, because the sliding contact is at the high voltage end of the loop, I presume resistive losses aren't as bad as they would be at the bottom where voltage is low and current is high.

art> One thing I thought about as I read the page was the
art> soldered joints and its added resistance. [...]

Gee, how resistive is the solder? I know it's not as good a conductor as copper, but the joints fit pretty well. I'm guessing the amount of solder width in the electrical path is probably on the order of one millimeter for the entire antenna. Given that the copper loop's DC resistance is (in theory) around 40 milliohms, it's hard for me to imagine that a solder "fuse" (if you will), connected in series, would add much. But I'm prepared to learn something new -- it happens all the time!

When I was first experimenting with the design, I had been worried about the union joints, but they have something like 1cm^2 of surface contact and the copper squishes together as the joints are tightened.

In any case, your suggestion about applying a continuous conductor and checking for its influence is well taken. At least, I don't have a horrible problem or the bandwidth would be too large and/or something would be getting hot.

David
N5IZU

# 3644. Re: Strange question about SWR on HV lines

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-14 17:41:43 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cpn8kn$3j9$1@hercules.btinternet.com>
Source record: 85234

A device usually described as a 1-to-1 choke balun is amongst the most simple of all radio components.

Actually, 1-to-1 has nothing to do with impedance-matching or transformation, or anything else.

The choke simply allows a balanced circuit, of no particular impedance, to be connected to an unbalanced circuit, of another no particular impedance, without any significant interaction between them.

It is just a very short length of balanced-twin transmission line, like speaker cable, of no particular impedance, wound on a ferrite ring to behave as a bifilar-wound RF choke.

Loss is negligible. There's only copper loss. The ferrite plays no part in transmission along the short line, only in the longitudinal choking action.

If there are any ferrite losses they only occur due to the very small longitudinal current - which is what the choke is doing its best to get rid of anyway.

When used at the end of an antenna feedline a choke balun is just a short continuation of that line, albeit of a different impedance. Which is of no consequence.

At the junction of the balanced-to-unbalanced lines, such as coax to open-wire, there's going to be a large mismatch anyhow. But that's what the tuner is for.

The balun does indeed have an impedance transforming property as does any other short length of line. But in the case of multiband antenna systems it merely transforms one set of random-value impedances to another random set. Which, in effect, leaves things as they were.

The average impedance of speaker type cable is about 140 ohms which, for perfectionists, fits very nicely between 50-ohm coax and 450-ohm ladder line. But it hardly matters.

The length of line wound on a balun should not exceed 1/8 wavelength at the highest frequency of interest, at the lines own velocity. Choke action at the lowest frequency of interest depends on number of turns and permeabilty of the ferrite.

For multi-band operation a choke balun should be used. It is far better than fixed-ratio 4:1 and 9:1 baluns which involve wishful thinking and are best used over relatively narrow bands.

Choke baluns also make balanced tuners redundent. Who wants to crank two roller-coasters when one will do.

---

Reg, G4FGQ

# 3645. Re: I PASS MY TEST ALSO THE EASY WAY.way to go wildboy74

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-14 18:40:56 UTC
From: jcooper874@webtv.net
Message-ID: <12979-41BF33B8-293@storefull-3271.bay.webtv.net>
Source record: 85236

dont pay any mind to these trolls. anyway you think the feds will look
at the letters.there are a lot of export cb sales online no one has done
anything about it .anyway thats my 2 cents 73s

# 3646. Re: Antenna Tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-14 18:45:19 UTC
From: chuck <chuck@nospam.net>
Message-ID: <3xGvd.3784$2J2.401@newsread2.news.atl.earthlink.net>
Source record: 85235

Jack, I do think there's some confusion here. In cases where the balun is a part of the tuner input, the tuner chassis is usually connected directly to the transmitter chassis through the normal coax. You can ground the tuner chassis to an external earth ground if you so wish. Internally, the balanced output of the balun is connected to the "T" components at the input side. The coil, of course is not at chassis rf ground potential, but that is not relevant. It is, however, at DC ground potential (via the balun winding). I don't see any additional lightning issues associated with placing the balun at the tuner input.

73,
Chuck

JimK2TL@gmail.com wrote:
>>And yes you can stand-by-for-fireworks if you think lightning
>
> protection
>
>>isn't an issue. Anyone that thinks "floating equipment chassis"
>
> (isolated
>
>>from ground) is a good plan, lives in a place where lighting is
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> something
>
>>they watch only on the Discovery Channel.
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>>73,
>>Jack
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>
>
> Jack
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> abnormal passion regarding grounds.
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> which is not grounded anymore than is a balanced line fed doublet.
> Certainly everything before the tuner is well grounded. I even have a
> spark gap type lightning protector on the balanced feeds.
> As far as the debate regarding baluns at the input or output, I would
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> better at the output..because it makes my life a lot simpler. Right
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> a Radio Works remote balun, terminated with 300 ohm transmitting

> twinlead, feeding a 40 meter doublet. Works like gangbusters.
> Jim
>

# 3647. Re: Antenna Tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-14 19:12:28 UTC
From: dplatt@radagast.org
Message-ID: <10rueosqloevoa8@corp.supernews.com>
Source record: 85237

In article <E6tvd.6659$7p.4476@lakeread02>,
Jack Painter <223bthp@cox.net> wrote:

>I can't imagine what's possibly gained by 1:1 in front of the tuner v. 4:1
>(when applicable, some antennas recommend this, including for twin-lead)
>after it.

The reason I've seen stated, is that many 4:1 balun designs only work "as advertised" if they're working into something fairly close to their design impedances. For example, a 4:1 balun intended to match 200 ohms to 50 ohms, will only provide a 4:1 ratio and good current balance and efficiency when matching impedances fairly close to those.

If you put such a balun at the output of a wide-range transmatch, and try to match up a difficult load, then the balun might "see" something like 750-j250 or 25+10j on its "200-ohm" side. The result might be poor current balance on the "balanced" side, or excessively high current flows which would require de-rating the balun's power handling capability. "Voltage" baluns seem to be most vulnerable to this sort of problem.

Putting a 1:1 balun on the input side of the tuner, and using a fully-balanced or pseudo-balanced tuner is one way around this, since the balun "sees" only the impedance load for which it was designed.

Another approach, often suggested, is to use a 1:1 transmission-line current balun on the output.

Using a link-coupled tuner (a classic Matchbox, or a Z-match) is yet another option.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will boycott any company which has the gall to send me such ads!

# 3648. Re: Strange question about SWR on HV lines

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-14 21:06:09 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41bf55f4_4@127.0.0.1>
Source record: 85003

Nick wrote:
> The operator of the generator has the freedom to adjust
> power output from 0 to 100% of rated and VAR output between the maximum
> incoming and outgoing rated values. No matching required.

Phase needs to be matched. ;-)

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# 3649. Re: Antenna Tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-14 21:29:50 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41bf5b7f_4@127.0.0.1>
Source record: 85002

Bob Miller wrote:
> The few balanced tuners that are being manufactured nowadays all seem
> to employ the balun on the input side.

It's difficult to put a "Balun" on the output of a balanced tuner.
The tuner is balanced and the feedline is balanced. Any device
designed to reduce common-mode currents at that point should
properly be called a "Balbal" - and they are relatively difficult
to build for the desired balanced Z0.

> In years past, there have been heated discussions in this group as to
> whether the balun belongs on the input or output -- you could do a
> Google search if you're interested.

Things got carried away during those heated discussions. What I
got out of it is that a balun on the input is just as effective
as a balun on the output. What most people apparently got out of
it is that a balun on the input is absolutely useless. So another
old wives' tale is born. If the following statements are not true,
someone please correct me.

If the common-mode currents don't change as a result of moving the
balun from the output of an unbalanced tuner to the input, essentially
nothing changes. The balun continues to be just as effective against
common-mode currents and the stress on the balun remains the same.

If the common-mode currents increase as a result of moving the balun
from the output to the input, the effect of the movement is negative.

If the common-mode currents decrease as a result of moving the balun
from the output to the input, the effect of the movement is positive.

Bottom line is that one needs to measure the common-mode current to
determine if *any* change is effective. A ferrite toroid with a few
turns around it driving a 1N34 circuit is an inexpensive and effective
way of measuring common-mode current. In one experiment that I ran,
moving the choke from the output of the balanced tuner to the input
actually reduced the measured common-mode current for that particular
configuration. But without actual measurements, results are unpredictable.
--
73, Cecil http://www.qsl.net/w5dxp

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## 3650. Amateur Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-14 21:30:53 UTC
From: Goetz <goetz@goetz-von.com>
Message-ID: <cpnm2d$5eu$1@hercules.btinternet.com>
Source record: 85238

Go to www.euronium.de

The Amateur and PMR Radio Forum.

G&#65533;etz.

# 3651. Re: Strange question about SWR on HV lines

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-14 21:44:53 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41bf5efa$1_1@127.0.0.1>
Source record: 85008

Reg Edwards wrote:
> It is just a very short length of balanced-twin transmission line, like
> speaker cable, of no particular impedance, wound on a ferrite ring to behave
> as a bifilar-wound RF choke.

Essentially the same function can be obtained by wrapping a few
turns of coax around that same toroid. The impedance looking
into my balanced feedline is between 35 ohms and 85 ohms so
teflon RG-400 works very well.

> The average impedance of speaker type cable is about 140 ohms which, for
> perfectionists, fits very nicely between 50-ohm coax and 450-ohm ladder
> line. But it hardly matters.

It matters even less than that, Reg. :-) On a 450 ohm feedline with SWR
not equal to 1:1, the impedance looking into the feedline will *never*
equal 450 ohms.
--
73, Cecil http://www.qsl.net/w5dxp

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# 3652. Re: Antenna Tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-14 21:50:02 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41bf602e$1_2@127.0.0.1>
Source record: 84998

Dave Platt wrote:
> Another approach, often suggested, is to use a 1:1 transmission-line
> current balun on the output.

What's wrong with putting a 1:1 choke on both input and output
to double the impedance seen by the common mode current?
--
73, Cecil http://www.qsl.net/w5dxp

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# 3653. Re: Simple, cheap antenna for portable use.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-14 23:30:58 UTC
From: Jon <g2fhf@g3sds.org.uk>
Message-ID: <cpnt3h$qbc$1@news7.svr.pol.co.uk>
Source record: 85239

David

I have had good success with a vertical wire of whip that is longer that a 1/4 wave on the lowest frequency with a variable capacitor at the base for tuning. I use a sectional military vehicle whip that is about 20' long mounted on a wooden broom handle that is pushed into the ground. The capacitor is connected between the centre of the coaxial feed and the bottom of the whip. Then it is just a case of connecting a couple of radials for the band that you want to work and tuning the cap for minimum VSWR. I have worked all over the world on the higher bands using my FT-817 with 5W. it takes only a couple of minutes to set up and is very efficient. The whole antenna weighs about a pound and will fit inside a rucksack. I have used it with 100W even with a receiving capacitor, as the cap is at a low voltage point there is no worry of flashover.

If you want more information please email me and I will send you a picture.

Jon G2FHF

David B. Thomas wrote:
> For portable operation in the 14-30 MHz range, I use a small, handheld
> transmitting loop. Here is a web page describing it and how to build
> one from inexpensive materials. The page also links to other pages
> with good information on loops.
>
> http://dt.prohosting.com/hacks/antenna/magloop.html
>
> I chose the loop because it is actually possible to operate while
> walking around. Obviously if you are able to erect a larger antenna
> at your operating site, you would be able to get better performance.
> My loop is about 30% efficient at 14 MHz, theoretically delivering
> about one S-unit less than a half wave dipole.
>
> David
> http://www.qrz.com/n5izu

# 3654. Re: Antenna Tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-14 23:34:14 UTC
From: Jack Painter <223bthp@cox.net>
Message-ID: <YLKvd.7193$7p.2104@lakeread02>
Source record: 85240

"chuck" <chuck@nospam.net> wrote
> Jack, I do think there's some confusion here. In cases where the balun
> is a part of the tuner input, the tuner chassis is usually connected
> directly to the transmitter chassis through the normal coax. You can
> ground the tuner chassis to an external earth ground if you so wish.
> Internally, the balanced output of the balun is connected to the "T"
> components at the input side. The coil, of course is not at chassis rf
> ground potential, but that is not relevant. It is, however, at DC ground
> potential (via the balun winding). I don't see any additional lightning
> issues associated with placing the balun at the tuner input.
>
> 73,
> Chuck

Hi Chuck (and Jim), I was unclear on what the benefits would be, hence my questions to Jim (and the Group). But the file I referenced earlier also questioned the benefits, and explained the need for floating the tuner when a Balun i used in front of it, which would be a very bad move if lightning protection was an issue. There would be no ground connection to the tuner, leaving it as a sacrifice gear but inside the shack!. That's not all that uncommon to sacrifice a tuner by the way, but usually seen where the tuner is up in the air at the feedpoint. Marine applications often use this configuration. I don't! Hi!
--
6. Conclusions
As noted by Roy Lewallen, W7EL,[2] putting a choke balun on the input of an unbalanced tuner to drive a balanced line is useless. It introduces a ``hot'' tuner case which must be isolated with no benefit over putting the balun on the output.
--
I agree that a 4:1 after the tuner (or after coax from tuner to feedpoint where laddr-line begins) is a compromise at best, offering beneficial performance at some frequencies and degradation at others. All a matter of choices I guess, make the decision that's safe (first) and best for your needs after that.

As always, I find this group shakes out great comments and explanations. If Roy L wants to add something to this I'm sure we would all be interested.

73,
Jack

>
> JimK2TL@gmail.com wrote:
> >>And yes you can stand-by-for-fireworks if you think lightning

> >
> > protection
> >
> >>isn't an issue. Anyone that thinks "floating equipment chassis"
> >
> > (isolated
> >
> >>from ground) is a good plan, lives in a place where lighting is
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> > now I am using about 5 feet or so of LMR400 from my unbalanced tuner to
> > a Radio Works remote balun, terminated with 300 ohm transmitting
> > twinlead, feeding a 40 meter doublet. Works like gangbusters.
> > Jim
> >

# 3655. Re: Loop Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-15 00:46:22 UTC
From: "William H. O'Hara, III" <whoohara@yahoo.com>
Message-ID: <Xns95BFC93FA1533AX2A3DA5M1512AODKAMO@216.196.97.142>
Source record: 85241

"William H. O'Hara, III" <whoohara@yahoo.com> wrote in
news:Xns95BEE88AEB8F8AX2A3DA5M1512AODKAMO@216.196.97.142:

>
> I did quickly in the middle of the night. I will
> look it over and see I can find some problem with
> the wires. I used EZNEC demo 4.0.
>
> Thanks
> Bill
>
>> Maybe you should check your connections and try again. For
>> what it's worth, the pattern is like most large horizontal
>> loops, except for two large lobes in the direction of the
>> top corners of the tee.
>>

I did get it to model SWR with high reactances(to me anyways).
Does this seem right? I dunno. Thanks

Bill

## 3656. Re: AM radio reception inside passenger planes?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-15 03:25:36 UTC
From: Dave Holford <mylastname@deletethis.sympatico.ca>
Message-ID: <F8Ovd.10103$pb.691481@news20.bellglobal.com>
Source record: 85242
Cross-posted to: rec.travel.air,rec.radio.amateur.antenna,sci.electronics.equipment

> cabin. But has anybody ever heard a cabin announcement during flight
> to turn off any devices?
>
> Fred F.
>

There have been numerous postings in various scanner, shortwave and ham groups by people who have been ordered to turn off their radio and other PEDs.
More than one person has been ordered off, or met by the authorities on landing and at least one passenger who refused to turn off a cellphone ended up with some jail time after landing in the U.K. - it was pretty widely reported a year or so ago.

Dave

# 3657. Re: AM radio reception inside passenger planes?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-15 03:33:35 UTC
From: Dave Holford <mylastname@deletethis.sympatico.ca>
Message-ID: <8gOvd.10111$pb.695471@news20.bellglobal.com>
Source record: 85243
Cross-posted to: rec.travel.air,rec.radio.amateur.antenna,sci.electronics.equipment

> 
> My world is as an instrument rated pilot and one who services aircraft
> avionics. And you must have missed my other post where I said PEDs
> should be off at all times.
> 
> Fred F.
> 
> 

The I presume you specified AM because the LO operates outside aviation frequencies (now that LORAN A is gone), unlike the LO in an FM broadcast receiver which covers the VHF localizer and VOR frequencies very nicely.

Dave

# 3658. Re: AM radio reception inside passenger planes?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-15 03:40:52 UTC
From: Dave Holford <mylastname@deletethis.sympatico.ca>
Message-ID: <ZmOvd.10114$pb.698381@news20.bellglobal.com>
Source record: 85244
Cross-posted to: rec.travel.air,rec.radio.amateur.antenna,sci.electronics.equipment

> 
> > All this while the air travel industry is considering allowing
> > passengers to use their own cell phones WHILE THE PLANES ARE IN FLIGHT
> > by adding cell-phone relay stations to the planes and allowing any
> > such calls to be completed via satellite. So I guess the feeble
> > radiation by my FM radio (powered by 2 AAA batteries) is enough to
> > cause a plane to dive into the ocean, but the guy next to me putting
> > out 3 watts of near-microwave energy is totally safe.
> 

I can't provide technical details of the operation because I don't know
them; but I am familiar with a number of totally RF screened environments
where use of electronic devices are tightly controlled. However, internal
relays are used to permit operation of cell phones - which I always
understood were specific models which had been certified for such use.

Dave

# 3659. Re: FS 8 pill Linear

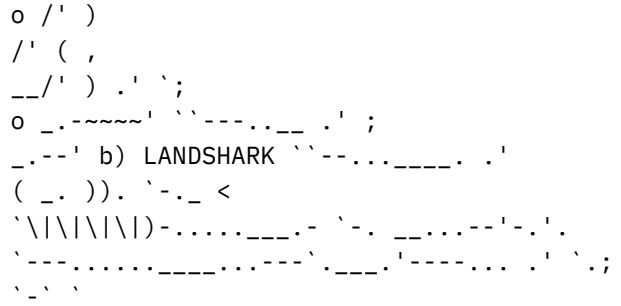
Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-15 04:18:24 UTC
From: Landshark <s3buell@sbcglobal.net>
Message-ID: <kWOvd.34205$zx1.7589@newssvr13.news.prodigy.com>
Source record: 85245
Cross-posted to: rec.radio.cb,rec.radio.amateur.policy,rec.radio.amateur.antenna,alt.ham-radio.vhf-uhf,rec.radio.amateur.misc

"Contact_Guy" <Contact_Guy@nospam.com> wrote in message
news:41BF0172.16172820@nospam.com...
> If I could recommend this post I would !
>
> Assuming those sentiments are not forged, it explains why WA3MOJ has
> almost
> 1400 look-ups at QRZ. I guess everyone can't imagine how a supposedly
> bright
> guy could be such an ass.
>

Oh it's a forge, Geo doesn't ever post with his real addy since
he forgot to take his call sign sig out of a post he made.

Landshark

--



# 3660. Re: Antenna Tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-15 04:48:45 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41bfc251_2@127.0.0.1>
Source record: 85000

Jack Painter wrote:
> 6. Conclusions
> As noted by Roy Lewallen, W7EL,[2] putting a choke balun on the input of an
> unbalanced tuner to drive a balanced line is useless.

The choke on the input is *still* in series with the common-mode
current and is still performing the choking function. Moving the
balun to the input doesn't relieve the stress on the choke but it
also does NOT render the choke non-functional as the word "useless"
implies.
--
73, Cecil http://www.qsl.net/w5dxp

----------== Posted via Newsfeed.Com - Uncensored Usenet News ==----------
http://www.newsfeed.com The #1 Newsgroup Service in the World!
-----= Over 100,000 Newsgroups - Unlimited Fast Downloads - 19 Servers =-----

# 3661. Re: Loop Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-15 06:08:41 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <3mkvr0hl7v8praeqhd8lsurdv4rt0fkof3@4ax.com>
Source record: 85246

On Tue, 14 Dec 2004 18:46:22 -0600, "William H. O'Hara, III"
<whoohara@yahoo.com> wrote:
>I did get it to model SWR with high reactances(to me anyways).
>Does this seem right? I dunno. Thanks

Hi Bill,

At this point, you need to provide more specifics. One, what frequencies? Two, did they match your experience with a physical model?

To answer your question lacking this information, yes this seems right - at least somewhere in the panorama of all possible outcomes. It stands to reason that ANY antenna, when looked at across a wide enough spectrum, will reveal both resonances and high reactances, and many combinations in between. This is just par for the course.

Now, if you find you are experiencing these high reactances in nature as well as in modeling; then try one thing: Break the wire at a point that is on the opposite side of the loop from the feedpoint and see what happens.

73's
Richard Clark, KB7QHC

# 3662. Re: Loop Antenna as Triangle?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-15 06:32:58 UTC
From: richardharrison@webtv.net
Message-ID: <25327-41BFDA9A-441@storefull-3254.bay.webtv.net>
Source record: 85247

Roy, W7EL wrote:
"In what way is the effectiveness of a circular loop decreased by changing its shape?"

There is an old story about the kid who tells his dad about learning in school that pi r sguare. Dad replied that what school taught him was dumb. All the world knew pie are round. Cornbread are square.

Maybe it was Pythagoras who found the approximate value of pi by constructing ever more equilateral sided figures inside and outside of a circle until there was no significant difference in the lengths making up the sides of the interior and exterior figures. He could measure straight lengths. He found the value to be 3.1416 for the approximate value of pi which multiplied by the radius would equal the perimeter of the circle. Also, pi times the radius squared gave the enclosed area.

The figure which encloses the most area for a given perimeter is a perfect circle. Distorting a circle reduces the area it encloses.

Radiation from any loop depends on its enclosed area. This is intuitive from transmission line behavior. It`s often observed that the wider the spacing between the wires, the more the line radiates. As we increase the area of a loop, the distance between the wires increases. Like the transmission line, iits radiation increases.

An antenna of any configuration radiates. Efficiency is determined by the ratio of radiation resistance to loss resistance. The antenna with minimum perimeter for a particular radiation resistance will also have minimum loss with other parameters being equal.

Best regards, Richard Harrison, KB5WZI

# 3663. Re: I PASS MY TEST ALSO THE EASY WAY.way to go wildboy74

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-15 08:39:26 UTC
From: hfpirate440@webtv.net
Message-ID: <16911-41BFF83E-1@storefull-3274.bay.webtv.net>
Source record: 85248

why all worried about trolls. dont pay them any mind fowarding
the messages is a waste of time you think the fcc will do something
beacuse some one in a newsgroup is dong this makeing all look like
babies or fools

# 3664. Re: Loop Antenna as Triangle?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-15 10:23:03 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10s044857k8741e@corp.supernews.com>
Source record: 85249

Richard Harrison wrote:
> . . .
> Radiation from any loop depends on its enclosed area. This is intuitive
> from transmission line behavior. It`s often observed that the wider the
> spacing between the wires, the more the line radiates. As we increase
> the area of a loop, the distance between the wires increases. Like the
> transmission line, iits radiation increases.
> . . .

Ok, let's start with a triangular loop with negligible loss. We feed 100 watts to it. Since it has negligible loss, 100 watts must be radiated.

You've said that the radiation must increase as we round out the triangle. So how much more radiation can we expect from a round loop fed with 100 watts? 120 watts? 150?

Roy Lewallen, W7EL

# 3665. Re: Strange question about SWR on HV lines

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-15 11:36:03 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cpp7j3$33i$1@titan.btinternet.com>
Source record: 85250

Sorry, my previous message was placed in the wrong thread.

I can add that 4:1 and 9:1 fixed-ratio baluns should be used only between known, well-defined, relatively narrow impedance ranges.

They are best NOT used on the transmission line side of tuners. Otherwise the tuner is forced into dealing with reactances in the balun itself. This restricts the range of antenna impedances which can be handled by the tuner.

Fixed-ratio baluns, with their excellent frequency response, are ideal on the transmitter side of tuners, i.e., between precisely known impedances. However they are seldom needed in that unusual position if the required impedance transformation takes place in the tuner itself. As it always is with a standard type of tuner and a 50-ohm transmitter.
---
Reg, G4FGQ

# 3666. Re: Loop Antenna as Triangle?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-15 12:54:05 UTC
From: N4LQ <n4lq@iglou.com>
Message-ID: <41c033ec_1@news.iglou.com>
Source record: 85251

Huh? A folded dipole is a LOOP. It radiates the same amount of RF as a
circular loop. No more, no less. Just in a different direction and more in
the favored direction. Pythagoras who?

--
Steve N4LQ
"Richard Harrison" <richardharrison@webtv.net> wrote in message
news:25327-41BFDA9A-441@storefull-3254.bay.webtv.net...
> Roy, W7EL wrote:
> "In what way is the effectiveness of a circular loop decreased by
> changing its shape?"
>
> There is an old story about the kid who tells his dad about learning in
> school that pi r sguare. Dad replied that what school taught him was
> dumb. All the world knew pie are round. Cornbread are square.
>
> Maybe it was Pythagoras who found the approximate value of pi by
> constructing ever more equilateral sided figures inside and outside of a
> circle until there was no significant difference in the lengths making
> up the sides of the interior and exterior figures. He could measure
> straight lengths. He found the value to be 3.1416 for the approximate
> value of pi which multiplied by the radius would equal the perimeter of
> the circle. Also, pi times the radius squared gave the enclosed area.
>
> The figure which encloses the most area for a given perimeter is a
> perfect circle. Distorting a circle reduces the area it encloses.
>
> Radiation from any loop depends on its enclosed area. This is intuitive
> from transmission line behavior. It`s often observed that the wider the
> spacing between the wires, the more the line radiates. As we increase
> the area of a loop, the distance between the wires increases. Like the
> transmission line, iits radiation increases.
>
> An antenna of any configuration radiates. Efficiency is determined by
> the ratio of radiation resistance to loss resistance. The antenna with
> minimum perimeter for a particular radiation resistance will also have
> minimum loss with other parameters being equal.
>
> Best regards, Richard Harrison, KB5WZI
>

# 3667. Re: Loop Antenna as Triangle?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-15 12:57:00 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41c034c0$1_2@127.0.0.1>
Source record: 84999

Richard Harrison wrote:
> Radiation from any loop depends on its enclosed area.

Would that make square loops more efficient than
folded dipoles?
--
73, Cecil http://www.qsl.net/w5dxp

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http://www.newsfeed.com The #1 Newsgroup Service in the World!
-----= Over 100,000 Newsgroups - Unlimited Fast Downloads - 19 Servers =-----

# 3668. Re: Simple, cheap antenna for portable use.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-15 13:41:58 UTC
From: art <aunwin@insightbb.com>
Message-ID: <1103118118.240168.174010@f14g2000cwb.googlegroups.com>
Source record: 85187

David
Thanks, it was the term "rotor" that threw me.
On the joint resistance question, from what I have heard over the years
you may well be surprised when you add the aluminum !
Art

# 3669. Re: For Sale: Kenwood TS-870 Station

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-15 13:46:16 UTC
From: laborkei <laborkeiNOSPAM@hotmail.com>
Message-ID: <sdXvd.16393$Ap1.16271@bignews6.bellsouth.net>
Source record: 85252
Cross-posted to: alt.ham-radio.marketplace,rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.swap

Auction Ending Soon !

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&rd=1&item=5737562395

# 3670. Vertical antenna recomendations

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-15 15:31:14 UTC
From: John <res0b06f@verizon.net>
Message-ID: <6NYvd.7201$E_6.5061@trnddc04>
Source record: 85253

Greetings all....
I'm slowly getting back into Am. Radio, currently on 2m & 70cm. (I had a General before my current call) and my knowledge of current antennas and transmission line options is really outdated.

I have a place in the remote areas of North Central Florida that's on a bluff about 125 feet above the surrounding forest. About 150' from the house is an old Satellite antenna mounting pole (really solid and substantial) that's maybe 18 or 20' tall. The big dish isn't there anymore, just the pole. I'm thinking that I would like to mount a vertical antenna on the top of the pole. I would anticipate running maybe an Icom 706MkIIG on HF and the 2m and 70cm. Many many questions come up and I could benefit from people with more current knowledge of what's available.

1. What verticals are recommended these days? (I used to like the Butternut) The 706 claims 100 watts on HF and 6M, 50W on 2m and 20w on 440.

2. With the vertical up about 18', what about radials? can I bury them at the base so I don't have guy wires draping down from the top of the pole at the base of the Vertical?

3. What suggestions for coax transmission line to make that long a run? I was thinking I would put it in Schedule 40 PVC pipe sealed as if it were carrying water, and bury it.

Although I'm out in the middle of the boonies, esthetics is still an issue, so I don't want wires showing.

Thanks for your comments...
John
KD4RN

# 3671. Re: Vertical antenna recomendations

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-15 16:05:04 UTC
From: Ralph Lindberg <rlindber@kendaco.telebyte.com>
Message-ID: <Pine.LNX.4.44.0412150800310.16050-100000@mail.telebyte.com>
Source record: 85254

Personally I've never been impressed with Butternut's quality. But maybe
that's just me.
I would look at things like the CushCraft R7 (or similar model from
HyGain). Or if I really had money to burn, the big tower from HyGain.
If I were to "roll my own", a Disc-Cone made for 40M would be great
(with continuous coverage to 6 meters, all with no radials). The down
side, large : about 40 ft tall and 35 ft across, unless you wanted to walk
under the cone, then it would be 50 ft tall and 40 feet across.

--
-----
Ralph Lindberg N7BSN n7bsn@amsat.org
RV and Camping FAQ http://www.ralphandellen.us/rv
Cry bother and loose the Pooh's of War

# 3672. Re: Vertical antenna recomendations

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-15 16:05:34 UTC
From: Caveat Lector <oldcl@rome.com>
Message-ID: <ihZvd.35534$ve.32259@fed1read06>
Source record: 85255

John you might look at the 1/2 wave end fed verticals -- they are multiband
and no radials required -- just a few short counterpoises.

See Hy-gain DX-77A
http://www.hy-gain.com/products.php?catid=2

Cushcraft R-6000
http://www.cushcraft.com/amateur/details.asp?catid=69

There several others as well

For a comprehensive list of antenna mfg's
See AC6V's site
http://ac6v.com/antdealer.htm

--
Caveat Lecter

"John" <res0b06f@verizon.net> wrote in message
news:6NYvd.7201$E_6.5061@trnddc04...
> Greetings all....
> I'm slowly getting back into Am. Radio, currently on 2m & 70cm. (I had a
> General before my current call) and my knowledge of current antennas and
> transmission line options is really outdated.
>
> I have a place in the remote areas of North Central Florida that's on a
> bluff about 125 feet above the surrounding forest. About 150' from the
> house is an old Satellite antenna mounting pole (really solid and
> substantial) that's maybe 18 or 20' tall. The big dish isn't there
> anymore, just the pole. I'm thinking that I would like to mount a
> vertical antenna on the top of the pole. I would anticipate running maybe
> an Icom 706MkIIG on HF and the 2m and 70cm. Many many questions come up
> and I could benefit from people with more current knowledge of what's
> available.
>
> 1. What verticals are recommended these days? (I used to like the
> Butternut) The 706 claims 100 watts on HF and 6M, 50W on 2m and 20w on
> 440.
>
> 2. With the vertical up about 18', what about radials? can I bury them at
> the base so I don't have guy wires draping down from the top of the pole
> at the base of the Vertical?
>
> 3. What suggestions for coax transmission line to make that long a run? I
> was thinking I would put it in Schedule 40 PVC pipe sealed as if it were
> carrying water, and bury it.

>
> Although I'm out in the middle of the boonies, esthetics is still an
> issue, so I don't want wires showing.
>
> Thanks for your comments...
> John
> KD4RN

# 3673. Re: Newbie low-brain question re: fm stereo broadcast antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-15 16:11:41 UTC
From: caskamite@hotmail.com
Message-ID: <cppno2$crr$1@news8.svr.pol.co.uk>
Source record: 85256

Nay nay that will never work.

# 3674. Re: Vertical antenna recomendations

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-15 16:20:06 UTC
From: "R. Scott" <RickN7HJTHREAD@gmail.com>
Message-ID: <41C06436.A19E664@gmail.com>
Source record: 85260

John wrote:

Butternut still, HF9 if you can afford it. Put a 2m 70m Arrow
(or make a copy) Jpole on your house (I have one and love it)

http://www.arrowantennas.com/

Design to build your own

http://www.arrowantennas.com/inst/ijpole.html

As far as Coax, Get some of the really great stuff at

http://www.davisrf.com/

Coax is at

http://www.davisrf.com/ham1/coax.htm

try thier Bury Flex (9914F), but if your going to run it in a Conduit
then most anything would work, I bought the 9913 and LOVE IT

RFDavis has great service too, they fixed a foul up (IE the President
himself fixed it) and they are above reproach. All my Coax and
wire needs will go through them from now on

Enjoy

Scotty N7HJ
Everett, Washington

# 3675. Re: FS 8 pill Linear

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-15 16:21:03 UTC
From: caskamite@hotmail.com
Message-ID: <cppo9j$ojj$1@newsg3.svr.pol.co.uk>
Source record: 85257
Cross-posted to: rec.radio.cb,rec.radio.amateur.policy,rec.radio.amateur.antenna,alt.ham-radio.vhf-uhf,rec.radio.amateur.misc

A radio call sign is just a jumble of numbers and letters when NOT used on the radio. Anyone can use anyone's call sign, for an internet name, if it is not transmitted on a radio... Radio call sign is just and only that, a radio call sign...
we're not very important really you know.

# 3676. Re: Kenwood TS-870 Station

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-15 16:27:50 UTC
From: caskamite@hotmail.com
Message-ID: <cppom9$g93$1@newsg4.svr.pol.co.uk>
Source record: 85258
Cross-posted to: alt.ham-radio.marketplace,rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.misc

Or buy one new from lynchy

http://www.hamradio.co.uk/acatalog/Base_Station.html

£1,199.99 (Euro€1,793.34) (Including: VAT at 17.5%)

# 3677. Re: Vertical antenna recomendations

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-15 16:37:31 UTC
From: Bob Miller <rmiller47@satx.rr.com>
Message-ID: <blp0s0lakgda1o1pjvto44dhiilofihgpf@4ax.com>
Source record: 85259

On Wed, 15 Dec 2004 15:31:14 GMT, John <res0b06f@verizon.net> wrote:

>Greetings all....
>I'm slowly getting back into Am. Radio, currently on 2m & 70cm. (I had a
>General before my current call) and my knowledge of current antennas
>and transmission line options is really outdated.
>

>
>Thanks for your comments...
>John
>KD4RN

Your best bet is a copy of the ARRL Antenna Book. About $30. Pretty
informative.

Otherwise, the Butternut verticals have a pretty good reputation
nowadays. Go the the Bencher web site (they sell Butternut), and look
at some of the tech papers they have for vertical antennas. That would
be a quick way to catch up on things...

bob
k5qwg

# 3678. Re: Loop Antenna as Triangle?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-15 16:43:30 UTC
From: richardharrison@webtv.net
Message-ID: <29532-41C069B2-20@storefull-3258.bay.webtv.net>
Source record: 85261

Roy, W7EL wrote:
'Ok, let`s start with a triangular loop with negligible loss."

"Negligible loss" eliminates the differences between loops of most shapes with the same enclosed areas. Area of a triangle is 1/2 its base times its altitude, if I remember.

I`d rather use 16 ft of wire to make a square loop with 4-ft sides. Side squared makes an area of 16 sq ft.

A circle of 16 ft perimeter has a diameter of 6.09 ft. Radius is 3.049 ft. Squared, it`s 9,27. and times pi it`s 20.13 sq ft.

Clearly the circle has the greater area for the same wire. Loss is based on the resistance of the wire which is the same in both cases.

For more enclosed area, you get more radiation for the same wire and loss.

As a short cut, I`ll quote Terman on page 907 of his 1955 edition:
"The radiation resistance of a loop antenna is less the smaller the loop area."

Best regards, Richard Harrison, KB5WZI

# 3679. H.F Dish Antenna update

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-15 16:54:39 UTC
From: art <aunwin@insightbb.com>
Message-ID: <1103129679.185216.177960@z14g2000cwz.googlegroups.com>
Source record: 85186

In the past I mentioned that I was modelling an antenna for 20 metres.
This antenna became a single driven element with five reflectors which
emulate a dish in it's crudish form not only in position of reflectors
but also the elements were not shaped at this time.
The following table follows what one would get for a reflective dish
used on frequencies in the giga hertz range where the bandwidth is
broader than
that obtained with the yagi format PLUS relevant atributes stay more
constant over a frequency range than that obtained with a super gain
type array.
The band width is wider than a typical yagi in that the major portion
of the radiation is to the front this.This band with is expected to
narrow and to increase gain when individual elements are shaped to a
parabolic form and
it is hoped that forward side lobes will not occur as is normal for a
long boom multi element yagi form as used on 440 Mhz.
The driven element is at a height of 76 feet over perfect ground.

Normally one would say that if results seem out of the ordinary one
should question it, so comments are requested regarding my explanations
which
lead me to think that they really are what one should expect.

Freq 14.0 14.1 14.2 14.3 14.35

Gain dbi 13.86 14.05 13.99 13.9 13.87

F/B 30 25.6 27.47 33.17 32.5

Zr 45.9 44.5 43.8 43.2 42.8

Zi -12.87 -6.52 0.6 7.84 11.54

SWR 1.32 1.2 1.14 1.25 1.34

I do not advocate the replacement of the normal yagi with the above
because of building difficulties tho it is my intention to build it.

Regards
Art

(Modelled using AO PRO with 80 segment/half wave and set up by a
consumate error generator Grin )

# 3680. Re: Vertical antenna recomendations

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-15 17:29:54 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <cir0s0dtgivi5lp3c9qbssl744fbvkjs7v@4ax.com>
Source record: 85262

On Wed, 15 Dec 2004 15:31:14 GMT, John <res0b06f@verizon.net> wrote:

>1. What verticals are recommended these days?

Hi John,

Just put up as much vertical tubing as will support itself, insulated
from the pole.

>2. With the vertical up about 18', what about radials?

Use the pole as the one and only radial. You would then have a
vertical offset dipole with one end grounded. I've never seen a name
put to this, but as an ad-hoc antenna, as good as any. If you want
more radials, simply tie them in at the bottom of the pole, buried
into the ground about an inch or two (or even tacked down along the
ground every 6" to a foot or two depending upon vegetation/grass
coverage - more grass, less tacking). Don't worry about more than 10
or 20 of 1/8 wavelength of the lowest frequency.

>3. What suggestions for coax transmission line to make that long a run?
>I was thinking I would put it in Schedule 40 PVC pipe sealed as if it
>were carrying water, and bury it.

Seal it only at the highest point so that it can drain when water gets
in (it will). Always choose a pipe several times larger than your
first guess and use sweeps at the bends instead of elbows.

An alternative is to electrically tie the tubing to the pole, and
Gamma feed the pole. Same advice about ground goes. One problem is
that this one size fits all (roughly 40M and up if the whole thing
stands some 30-40 feet tall) is that the higher bands will radiate
higher and higher into the sky. You might, then, want to use the pole
to support yard-arms that hold different radiators out and a way from
the pole and each other (one reason why you had that bigger pipe
installed for each of their feeds).

73's
Richard Clark, KB7QHC

# 3681. Re: Loop Antenna as Triangle?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-15 17:50:06 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <l4t0s05ijqltsrjpj19bmugcq219r529it@4ax.com>
Source record: 85263

On Wed, 15 Dec 2004 07:54:05 -0500, "N4LQ" <n4lq@iglou.com> wrote:

>Huh? A folded dipole is a LOOP.

Hi Steve,

Richard is right, but to answer your Huh? then it could be argued
that a standard dipole is an open loop or an unfolded dipole.

Classic radiation resistance formulas that are the basis of antenna
theory introduction are composed at small sizes such that the dipole
or the loop are no where near standard sizes. Their accuracy extends
between roughly a tenth wavelength to a quarter wavelength or more in
the greatest (not perimeter) physical dimension. This is often the
same range of size employed by the Ham in the HF regions.

>It radiates the same amount of RF as a circular loop. No more, no less.

Typically, yes, but to ignore the lesson of Rr may lead some to ignore
the importance of Ohmic loss in small radiators. That is to say,
offering the sobriquet that wire has negligible loss must have some
objective correlative: in comparison to what is it negligible?

One Ohm compared to 100 Ohms is trivial, whereas one Ohm in comparison
to 10 mOhms is warmed over death. Same wire, same loop (or dipole),
but far different results for different frequencies that yield
different radiation resistances.

>Just in a different direction and more in
>the favored direction. Pythagoras who?

Yahoo Pythagoras, an Australian red-headed actor wasn't it?

73's
Richard Clark, KB7QHC

# 3682. Re: H.F Dish Antenna update

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-15 17:58:02 UTC
From: hnkie <nospam@nospam.com>
Message-ID: <32bcq7F3jdkltU1@individual.net>
Source record: 85265

"art" <aunwin@insightbb.com> wrote in message
news:1103129679.185216.177960@z14g2000cwz.googlegroups.com...
> In the past I mentioned that I was modelling an antenna for 20 metres.
> This antenna became a single driven element with five reflectors which
> emulate a dish in it's crudish form not only in position of reflectors
> but also the elements were not shaped at this time.
> The following table follows what one would get for a reflective dish
> used on frequencies in the giga hertz range where the bandwidth is
> broader than
> that obtained with the yagi format PLUS relevant atributes stay more
> constant over a frequency range than that obtained with a super gain
> type array.
> The band width is wider than a typical yagi in that the major portion
> of the radiation is to the front this.This band with is expected to
> narrow and to increase gain when individual elements are shaped to a
> parabolic form and
> it is hoped that forward side lobes will not occur as is normal for a
> long boom multi element yagi form as used on 440 Mhz.
> The driven element is at a height of 76 feet over perfect ground.
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> Normally one would say that if results seem out of the ordinary one
> should question it, so comments are requested regarding my explanations
> which
> lead me to think that they really are what one should expect.
>
>
>
> Freq 14.0 14.1 14.2 14.3 14.35
>
> Gain dbi 13.86 14.05 13.99 13.9 13.87
>
> F/B 30 25.6 27.47 33.17 32.5
>
> Zr 45.9 44.5 43.8 43.2 42.8
>
> Zi -12.87 -6.52 0.6 7.84 11.54
>
> SWR 1.32 1.2 1.14 1.25 1.34
>
>
> I do not advocate the replacement of the normal yagi with the above
> because of building difficulties tho it is my intention to build it.
>
> Regards

> Art
>
> (Modelled using AO PRO with 80 segment/half wave and set up by a
> consumate error generator Grin )
>

F/B looks too high, you should have some big splinters off the backside.
(with a dish it can be hard to get 30)
Gain looks to be high for a 1 driven and 5 reflectors.
Does model take into account mutual effects of the reflectors?

# 3683. Re: H.F Dish Antenna update

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-15 18:03:11 UTC
From: "aunwin@insightbb.com"
Message-ID: <z%_vd.504010$wV.251008@attbi_s54>
Source record: 85264

"art" <aunwin@insightbb.com> wrote in message
news:1103129679.185216.177960@z14g2000cwz.googlegroups.com...
> In the past I mentioned that I was modelling an antenna for 20 metres.
> This antenna became a single driven element with five reflectors which
> emulate a dish in it's crudish form not only in position of reflectors
> but also the elements were not shaped at this time.
> The following table follows what one would get for a reflective dish
> used on frequencies in the giga hertz range where the bandwidth is
> broader than
> that obtained with the yagi format PLUS relevant atributes stay more
> constant over a frequency range than that obtained with a super gain
> type array.

CORRECTION
The BEAM width is wider than a typical yagi in that the major
portion
of the radiation is to the front .This BEAM width is expected to

> narrow and to increase gain when individual elements are shaped to a
> parabolic form
> It is hoped that forward side lobes will not occur as is normal for a
> long boom multi element yagi form as used on 440 Mhz.
> The driven element is at a height of 76 feet over perfect ground.
>
> Normally one would say that if results seem out of the ordinary one
> should question it, so comments are requested regarding my explanations
> which
> lead me to think that they really are what one should expect.
>
>
>
> Freq 14.0 14.1 14.2 14.3 14.35
>
> Gain dbi 13.86 14.05 13.99 13.9 13.87
>
> F/B 30 25.6 27.47 33.17 32.5
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> Zr 45.9 44.5 43.8 43.2 42.8
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> Zi -12.87 -6.52 0.6 7.84 11.54
>
> SWR 1.32 1.2 1.14 1.25 1.34
>
>
> I do not advocate the replacement of the normal yagi with the above

> because of building difficulties tho it is my intention to build it.
>
> Regards
> Art
>
> (Modelled using AO PRO with 80 segment/half wave and set up by a
> consumate error generator Grin )
>

# 3684. Re: Loop Antenna as Triangle?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-15 18:21:20 UTC
From: richardharrison@webtv.net
Message-ID: <2533-41C080A0-32@storefull-3257.bay.webtv.net>
Source record: 85268

I wrote:
"A circle of 16 ft peroimeter has a diameter of 6.09 ft."

My eyesight needs correction. It should have been 5.09 ft.

The area of a 16-ft circumference circle is 30.37 sq ft, not 20.13 sq ft.

30.37 sq ft is more than 16 sq ft, so the circle radiates more than the square for the same length of wire.

Best regards, Richard Harrison, Kb5WZI

# 3685. V: Antenna Software

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-15 18:21:38 UTC
From: Klaus Passler <klauspas@gmx.at>
Message-ID: <cppvb7$abn$1@newsreader1.utanet.at>
Source record: 85266

Hi
I'm an austrian student of physics and I am searching for a software which calculates the specification of an broadband antenna?

thank you

greetings
klaus

# 3686. Re: H.F Dish Antenna update

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-15 18:25:01 UTC
From: "aunwin@insightbb.com"
Message-ID: <1k%vd.198273$V41.135426@attbi_s52>
Source record: 85267

"hnkie" <nospam@nospam.com> wrote in message
news:32bcq7F3jdkltU1@individual.net...
>
> "art" <aunwin@insightbb.com> wrote in message
> news:1103129679.185216.177960@z14g2000cwz.googlegroups.com...
>> In the past I mentioned that I was modelling an antenna for 20 metres.
>> This antenna became a single driven element with five reflectors which
>> emulate a dish in it's crudish form not only in position of reflectors
>> but also the elements were not shaped at this time.
>> The following table follows what one would get for a reflective dish
>> used on frequencies in the giga hertz range where the bandwidth is
>> broader than
>> that obtained with the yagi format PLUS relevant atributes stay more
>> constant over a frequency range than that obtained with a super gain
>> type array.
>> The band width is wider than a typical yagi in that the major portion
>> of the radiation is to the front this.This band with is expected to
>> narrow and to increase gain when individual elements are shaped to a
>> parabolic form and
>> it is hoped that forward side lobes will not occur as is normal for a
>> long boom multi element yagi form as used on 440 Mhz.
>> The driven element is at a height of 76 feet over perfect ground.
>>
>> Normally one would say that if results seem out of the ordinary one
>> should question it, so comments are requested regarding my explanations
>> which
>> lead me to think that they really are what one should expect.
>>
>>
>>
>> Freq 14.0 14.1 14.2 14.3 14.35
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>> Gain dbi 13.86 14.05 13.99 13.9 13.87
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>>
>> I do not advocate the replacement of the normal yagi with the above

>> because of building difficulties tho it is my intention to build it.
>>
>> Regards
>> Art
>>
>> (Modelled using AO PRO with 80 segment/half wave and set up by a
>> consumate error generator Grin )
>>
>
> F/B looks too high, you should have some big splinters off the backside.

Why? Do you have splinters in a parabolic dish?
> (with a dish it can be hard to get 30)
> Gain looks to be high for a 1 driven and 5 reflectors.
If you picture a balloon squashed at one end more than
normal would not the gain increase?

> Does model take into account mutual effects of the reflectors?
Yes
Art
>
>

# 3687. Re: Loop Antenna as Triangle?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-15 18:44:36 UTC
From: Caveat Lector <oldcl@rome.com>
Message-ID: <oC%vd.63754$Af.6086@fed1read07>
Source record: 85269

Just a question

In microwave we talk about aperature as a determing factor of antennas.

To what extent does this apply to HF ??

--
Caveat Lecter

# 3688. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!! _____==___ pemluzov

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-15 18:48:32 UTC
From: sconzey <sconzeyNOSPAM@gmail.com>
Message-ID: <32bj17F3ekkelU1@individual.net>
Source record: 85271
Cross-posted to: rec.pyrotechnics,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc

Guys, there's this thing you may have heard of called 'democracy'. It's
a flawed system of government which assumes the majority is right.

This is the government you run under. This is the government that
elected George Bush. This is the government that elected Kennedy, this
is the government that elected Nixon, Clinton, and Roosevelt. Like it or
not, there is nothing you can do about it. The system works. You have
the President that most of you wanted.

This is why websites like 'sorryeverbody' really piss me off, what are
they apologising for? Are they apologising that the system works? That
the President who had the majority of the vote was elected?

The election is over. If you want your view to be heard, quit your
whining, quit your apologising, quit your tiny blogs that few read.
Write a letter, go on a march, and in four years time, vote.

*gets off his soapbox*

-sconzey

Roger wrote:
> On Mon, 08 Nov 2004 21:17:32 GMT, "Rich \(aka Old Dog\)"
> <Old_dog@atlantic.net> wrote:
>
>
>>"Roger" <Delete-Invallid.stuff.groups@tm.net> wrote in message
>>news:s1gvo018nua26er35t2uvkrs54ov109s0i@4ax.com...
>>
>>>On Mon, 8 Nov 2004 08:59:34 -0600, "Smokey" <telegrapher@hotmail.com>
>>>wrote:
>>>
>>>
>>>>Correction...
>>>>
>>>>50% of the population did not re-elect him. Only 21% of the population did.
>>>>79% of the American population is innocent.
>>>
>>>Actually they didn't vote and the word to describe them is apathetic.
>>
>>Maybe the word to describe them is "disgusted" that there were no good choices
>>offered...
>>
>

>
> Now that is certainly a valid point.
> There have been some good columns in the Orlando Sentinel this past
> week on that subject.
>
> Roger
>
>
>>-Rich
>>
>
>

# 3689. Re: V: Antenna Software

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-15 19:21:32 UTC
From: Bob Bob <bcnntp@optusnet.com.au>
Message-ID: <sef692-9hc.ln1@p400bob.lse.com.au>
Source record: 85175

4nec2 by Arie is a good start.

Scroll down the page http://www.si-list.org/swindex2.html

Cheers Bob VK2YQA Sydney Australia

Klaus Passler wrote:
> Hi
> I'm an austrian student of physics and I am searching for a software which
> calculates the specification of an broadband antenna?
>
> thank you
>
> greetings
> klaus
>
>

# 3690. Re: Vertical antenna recomendations

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-15 19:50:03 UTC
From: "H. Adam Stevens, NQ5H" <NQ5H@ARRL.net>
Message-ID: <10s15barlgpbrad@corp.supernews.com>
Source record: 85270

"John" <res0b06f@verizon.net> wrote in message
news:6NYvd.7201$E_6.5061@trnddc04...
> Greetings all....
> I'm slowly getting back into Am. Radio, currently on 2m & 70cm. (I had a
> General before my current call) and my knowledge of current antennas and
> transmission line options is really outdated.
>
> I have a place in the remote areas of North Central Florida that's on a
> bluff about 125 feet above the surrounding forest. About 150' from the
> house is an old Satellite antenna mounting pole (really solid and
> substantial) that's maybe 18 or 20' tall. The big dish isn't there
> anymore, just the pole. I'm thinking that I would like to mount a
> vertical antenna on the top of the pole. I would anticipate running maybe
> an Icom 706MkIIG on HF and the 2m and 70cm. Many many questions come up
> and I could benefit from people with more current knowledge of what's
> available.
>
> 1. What verticals are recommended these days? (I used to like the
> Butternut) The 706 claims 100 watts on HF and 6M, 50W on 2m and 20w on
> 440.
>
> 2. With the vertical up about 18', what about radials? can I bury them at
> the base so I don't have guy wires draping down from the top of the pole
> at the base of the Vertical?
>
> 3. What suggestions for coax transmission line to make that long a run? I
> was thinking I would put it in Schedule 40 PVC pipe sealed as if it were
> carrying water, and bury it.
>
> Although I'm out in the middle of the boonies, esthetics is still an
> issue, so I don't want wires showing.
>
> Thanks for your comments...
> John
> KD4RN

SteppIR
73
H.

# 3691. Re: Loop Antenna as Triangle?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-15 19:56:54 UTC
From: richardharrison@webtv.net
Message-ID: <2533-41C09706-35@storefull-3257.bay.webtv.net>
Source record: 85172

Caveat Lecter wrote:
"To what extent does this (aperture) apply to HF?"

To the fullest extent of the concept. See the 3rd edition of Kraus`
"Antennas", Section 2-11, The Radio Communications Link, beginning on
page 336.

Radio antennas scale to wavelength. Microwave antennas may be
impracticably large when scaled to longer wavelengths, but if built work
exactly like their higher frequency models.

Best regards, Richard Harrison, KB5WZI

# 3692. Re: hey, look!N8WWM Doug is microphallic

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-15 20:14:05 UTC
From: N8WWM <N8WWM@arrl.net>
Message-ID: <1103141839.104f2502d03fc7c9bb1bb65fef3fd9d3@teranews>
Source record: 85182
Cross-posted to: rec.radio.cb,alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.policy

You responded exactly as we expected, with stupid ass drool that
confirms your faggot assed lifestyle and mewling sissiness. Another
cock suckin' faggot slapped on the pee pee holders by the AKC.
Couldn't resist, could you? Hehehe...we know. As your Masters we have
studied you, and we know when you gay gay keyclowns will spurt
assjuice out to the NG. Just like you did then, ya FAG.

HEHEHEHEH

"KC8QJP" <KC8QJP@yahoo.com> wrote in message
news:32063cF3es751U1@individual.net...
> That's OK, I still have W8TOL and N8ORF pulling a train on me. They stuff
> all my holes and make me air-tight!
>
> We went through 3 cans of Crisco the last time Doug got locked up!
> wooooooooohooooooooooo!!!
>>
> <zerobeatradio@yahoo.com> wrote in message
> news:1102766065.949060.165250@c13g2000cwb.googlegroups.com...
>> LOL, Doug is a needle dick bug banger according to his common law wife
>> K8QJP, crisco kathy lee! Too funny!
>>
>>
>> KC8QJP wrote:
>>> this guy is hung compared to my dougay
>>> http://www.atlasperovic.com/contents/3.htm
>>>
>>> "KC8QJP" <KC8QJP@crisco.net> wrote in message
>>> news:2s5jriF1goibaU1@uni-berlin.de...
>>> >
>>> > "U Know Who" <AKC-AnonymousKeyboardCowardsRus@not-here.com> wrote
>> in
>>> > message news:Urg7d.5328$VB3.460@fe2.texas.rr.com...
>>> >>
>>> >> "Psychiatrist to keyclowns" <N8WWMkeyklonzrnutjobs@yahoo.com>
>> wrote in
>>> >> message news:586e7bbf.0409301653.327a7b03@posting.google.com...
>>> >>> http://www.geocities.com/mopeadopezbrain/index.html?1096389112170
>>> >>
>>> >> Then again, could be Doug's penis. Let's ask Kathy Lee.
>>> >>
>>> > too big.....his mental illness meds have really made him
>>> > microphallic.....
>>> >

>>
>
>

# 3693. Re: Loop Antenna as Triangle?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-15 20:16:27 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10s16srmnsa5pde@corp.supernews.com>
Source record: 85181

Richard Harrison wrote:
> Roy, W7EL wrote:
> 'Ok, let`s start with a triangular loop with negligible loss."
>
> "Negligible loss" eliminates the differences between loops of most
> shapes with the same enclosed areas. . .

That's almost correct, but not quite. Except for loss, a triangular loop, square loop, folded dipole, or round loop radiate equal amounts *regardless of their enclosed areas* -- the amount of power that's applied to them. The round loop doesn't radiate any more than any of the others. None is one more "effective" than another, except that the patterns will be different, so one might be more effective than another at communicating in a particular direction -- but the round loop won't necessarily always be the winner.

The statements you made earlier about a round loop radiating more, and the continuing hangup about enclosed area, are based on the assumption that the loop is small and is driven by a constant current source. For a given amount of wire, the round loop has the highest radiation resistance, and therefore if fed with a constant current, it consumes and therefore radiates the most power of any loop made with the same length of wire. This is a set of conditions often used by textbook authors to illustrate some basic principles, but it isn't representative of amateur (or commercial, for that matter) antenna use. It's necessary to read and understand the qualifications given by the authors before quoting their conclusions.

For a given length of wire, you'll get the most efficiency from a round loop for a given length of wire. But unless the loop is electrically very small, the efficiency will be high enough that this won't make any noticeable difference. Making a large loop round -- or increasing its enclosed area -- won't make it "radiate better" or be "more effective".

Roy Lewallen, W7EL

# 3694. Re: hey, look!N8WWM Doug is microphallic

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-15 20:21:31 UTC
From: Super Speed <cps@yahoo.com>
Message-ID: <1103142091.1abee043767ca78419c2d14b4262dff8@teranews>
Source record: 85184
Cross-posted to: rec.radio.cb,alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.policy

On Wed, 15 Dec 2004 15:14:05 -0500, "N8WWM" <N8WWM@arrl.net> wrote:

>You responded exactly as we expected, with stupid ass drool that
>confirms your faggot assed lifestyle and mewling sissiness. Another
>cock suckin' faggot slapped on the pee pee holders by the AKC.
>Couldn't resist, could you? Hehehe...we know. As your Masters we have
>studied you, and we know when you gay gay keyclowns will spurt
>assjuice out to the NG. Just like you did then, ya FAG.
>
>
>HEHEHEHEH
>

that was posted by Kathleen R Lee,isn't that your live in slut?she's a
fag?

>"KC8QJP" <KC8QJP@yahoo.com> wrote in message
>news:32063cF3es751U1@individual.net...
>> That's OK, I still have W8TOL and N8ORF pulling a train on me. They stuff
>> all my holes and make me air-tight!
>>
>> We went through 3 cans of Crisco the last time Doug got locked up!
>> wooooooooohooooooooooo!!!
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>> <zerobeatradio@yahoo.com> wrote in message
>> news:1102766065.949060.165250@c13g2000cwb.googlegroups.com...
>>> LOL, Doug is a needle dick bug banger according to his common law wife
>>> K8QJP, crisco kathy lee! Too funny!
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>>> KC8QJP wrote:
>>>> this guy is hung compared to my dougay
>>>> http://www.atlasperovic.com/contents/3.htm
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>>>> "KC8QJP" <KC8QJP@crisco.net> wrote in message
>>>> news:2s5jriF1goibaU1@uni-berlin.de...
>>>> >
>>>> > "U Know Who" <AKC-AnonymousKeyboardCowardsRus@not-here.com> wrote
>>> in
>>>> > message news:Urg7d.5328$VB3.460@fe2.texas.rr.com...
>>>> >>
>>>> >> "Psychiatrist to keyclowns" <N8WWMkeyklonzrnutjobs@yahoo.com>
>>> wrote in
>>>> >> message news:586e7bbf.0409301653.327a7b03@posting.google.com...

>>>> >>> http://www.geocities.com/mopeadopezbrain/index.html?1096389112170
>>>> >>
>>>> >> Then again, could be Doug's penis. Let's ask Kathy Lee.
>>>> >>
>>>> > too big.....his mental illness meds have really made him
>>>> > microphallic.....
>>>> >
>>>
>>
>>
>

# 3695. Re: Loop Antenna as Triangle?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-15 20:25:20 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10s17diimio3k63@corp.supernews.com>
Source record: 85183

It applies just as well. However, while the aperture of a parabolic reflector is about the area of the reflector, this isn't at all true of simple wire antennas like a dipole. For example, a half wave dipole's aperture is just slightly larger than a dipole of infinitesimally short length, and about equal to that of a loop. The aperture of a loop stays almost constant as the loop size is increased, until it gets big enough for the pattern to appreciably change.

Aperture is the same as directional gain (not numerically, but when one is greater so is the other), which is the same as gain when loss is neglected. Since aperture has no direct or obvious connection to physical size or dimension of most wire antennas, gain is usually used at HF as a descriptive measure rather than aperture. Note that the gain of all but an isotropic antenna is different in different directions, and therefore so is the aperture.

People with a weak understanding of the principles involved often fall into the trap of thinking that a larger antenna must have a larger "aperture" or, as amateurs like to call it, "capture area". That mistaken notion leads to all sorts of false conclusions. But the general misunderstanding of the terms are a real boon to antenna charlatans.

Roy Lewallen, W7EL

Also, the aperture is different in different directions.

Caveat Lector wrote:
> Just a question
>
> In microwave we talk about aperature as a determing factor of antennas.
>
> To what extent does this apply to HF ??
>

# 3696. Re: Loop Antenna as Triangle?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-15 20:30:24 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10s17n11fbkard1@corp.supernews.com>
Source record: 85185

Richard Harrison wrote:
> I wrote:
> "A circle of 16 ft peroimeter has a diameter of 6.09 ft."
>
> My eyesight needs correction. It should have been 5.09 ft.
>
> The area of a 16-ft circumference circle is 30.37 sq ft, not 20.13 sq
> ft.
>
> 30.37 sq ft is more than 16 sq ft, so the circle radiates more than the
> square for the same length of wire.

With the same power input? If I apply 100 watts to the square and get (very nearly) 100 watts radiated, how much do I get from the circle? Let's see, 30.37/16 * 100 = 190 watts. If I could capture that in a screen room with another antenna, I could feed 100 watts back to the transmit antenna and have 90 watts left over to run the refrigerator to cool my beer. . .

Roy Lewallen, W7EL

# 3697. Merry F'n Christmas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-15 20:40:09 UTC
From: N8WWM <N8WWM@arrl.net>
Message-ID: <1103143402.ab8b3feeaf9cf4cbb244d29f93a5b675@teranews>
Source record: 85188
Cross-posted to: rec.radio.cb,rec.radio.amateur.policy,rec.radio.amateur.antenna,alt.ham-radio.vhf-uhf

I'm dreaming of a cum drenched Christmas
With every throbbing dick I suck
Where the peckers glisten
And keyclowns listen
To hear me suck and blow

I'm dreaming of a cum drenched Christmas
With every anal hole I lick
I loves horny nutsacks
And spread wide asscracks
Oh I loves to lick 'em all

May you keyclowns have me eat meat
And may all my dick suckings be sweet

# 3698. Re: H.F Dish Antenna update

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-15 20:41:12 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10s18b985qgf832@corp.supernews.com>
Source record: 85189

A plain dipole 76 feet above perfect ground has a gain of about 8.6 dBi - surely you've modeled one with AO. So the gain of your antenna over a dipole is about 5.3 - 5.5 dB. (This would be a more meaningful way to state gain.) This is just slightly more than the gain from a three element Yagi, and less than a typical four element beam. The F/B ratio and bandwidth might be better than that of a typical three or four element Yagi (or they might not be -- a Yagi can be adjusted for a wide range of characteristics), but the gain is certainly not exceptional.

Roy Lewallen, W7EL

art wrote:
> In the past I mentioned that I was modelling an antenna for 20 metres.
> This antenna became a single driven element with five reflectors which
> emulate a dish in it's crudish form not only in position of reflectors
> but also the elements were not shaped at this time.
> The following table follows what one would get for a reflective dish
> used on frequencies in the giga hertz range where the bandwidth is
> broader than
> that obtained with the yagi format PLUS relevant atributes stay more
> constant over a frequency range than that obtained with a super gain
> type array.
> The band width is wider than a typical yagi in that the major portion
> of the radiation is to the front this.This band with is expected to
> narrow and to increase gain when individual elements are shaped to a
> parabolic form and
> it is hoped that forward side lobes will not occur as is normal for a
> long boom multi element yagi form as used on 440 Mhz.
> The driven element is at a height of 76 feet over perfect ground.
>
> Normally one would say that if results seem out of the ordinary one
> should question it, so comments are requested regarding my explanations
> which
> lead me to think that they really are what one should expect.
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> Freq 14.0 14.1 14.2 14.3 14.35
>
> Gain dbi 13.86 14.05 13.99 13.9 13.87
>
> F/B 30 25.6 27.47 33.17 32.5
>
> Zr 45.9 44.5 43.8 43.2 42.8
>

> Zi -12.87 -6.52 0.6 7.84 11.54
>
> SWR 1.32 1.2 1.14 1.25 1.34
>
>
> I do not advocate the replacement of the normal yagi with the above
> because of building difficulties tho it is my intention to build it.
>
> Regards
> Art
>
> (Modelled using AO PRO with 80 segment/half wave and set up by a
> consumate error generator Grin )
>

# 3699. Re: Loop Antenna as Triangle?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-15 20:51:39 UTC
From: richardharrison@webtv.net
Message-ID: <14773-41C0A3DB-138@storefull-3255.bay.webtv.net>
Source record: 85191

Ed wrote:
How would a three sided loop work?"

ON4UN`s "Low-Band DXing" says:
"---the delta loop can be called the poor man`s quad loop."

However the patterns and performance with various options are presented
because it requirea only one tall support and is easy to erect.

ON4UN`s book is published by ARRL.

Best regards, Richard Harrison, KB5WZI

# 3700. Re: Merry F'n Christmas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-15 20:52:09 UTC
From: Smooth G <SmoothG@infoworks.com>
Message-ID: <1291s01u783pe6jdi05sa66odplddnbkrp@4ax.com>
Source record: 85190
Cross-posted to: rec.radio.cb,rec.radio.amateur.policy,rec.radio.amateur.antenna,alt.ham-radio.vhf-uhf

On Wed, 15 Dec 2004 15:40:09 -0500, "N8WWM" <N8WWM@arrl.net> wrote:

>I'm dreaming of a cum drenched Christmas
>With every throbbing dick I suck
>Where the peckers glisten
>And keyclowns listen
>To hear me suck and blow
>
>I'm dreaming of a cum drenched Christmas
>With every anal hole I lick
>I loves horny nutsacks
>And spread wide asscracks
>Oh I loves to lick 'em all
>
>
>May you keyclowns have me eat meat
>And may all my dick suckings be sweet
>
>
WOW!!!
And this is what the All Kiss Cocks club likes to do when they are not
harassing people on this newsgroup!

# 3701. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!! _____==___pemluzov

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-15 21:05:22 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41c0a735$1_3@127.0.0.1>
Source record: 85001
Cross-posted to: rec.pyrotechnics,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc

sconzey wrote:
> Guys, there's this thing you may have heard of called 'democracy'. It's
> a flawed system of government which assumes the majority is right.
>
> This is the government you run under. This is the government that
> elected George Bush.

Sorry, we don't run under a democracy. If we did, Al Gore would have
been president. The USA is a *Republic*, not a democracy. Our Constitution
protects us from the tyranny of the majority. We don't have to drink
hemlock simply because the majority wants us to. (Socrates drank Hemlock
and died because the majority voted for it.)
--
73, Cecil, W5DXP

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# 3702. Re: H.F Dish Antenna update

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-15 21:11:19 UTC
From: Sonie <nospam@nospam.com>
Message-ID: <32bnjlF3f2udfU1@individual.net>
Source record: 85192

"aunwin@insightbb.com" <aunwin@insightbb.com@insightbb.com> wrote in message
news:1k%vd.198273$V41.135426@attbi_s52...
>
> "hnkie" <nospam@nospam.com> wrote in message
> news:32bcq7F3jdkltU1@individual.net...
> >
> > "art" <aunwin@insightbb.com> wrote in message
> > news:1103129679.185216.177960@z14g2000cwz.googlegroups.com...
> >> In the past I mentioned that I was modelling an antenna for 20 metres.
> >> This antenna became a single driven element with five reflectors which
> >> emulate a dish in it's crudish form not only in position of reflectors
> >> but also the elements were not shaped at this time.
> >> The following table follows what one would get for a reflective dish
> >> used on frequencies in the giga hertz range where the bandwidth is
> >> broader than
> >> that obtained with the yagi format PLUS relevant atributes stay more
> >> constant over a frequency range than that obtained with a super gain
> >> type array.
> >> The band width is wider than a typical yagi in that the major portion
> >> of the radiation is to the front this.This band with is expected to
> >> narrow and to increase gain when individual elements are shaped to a
> >> parabolic form and
> >> it is hoped that forward side lobes will not occur as is normal for a
> >> long boom multi element yagi form as used on 440 Mhz.
> >> The driven element is at a height of 76 feet over perfect ground.
> >>
> >> Normally one would say that if results seem out of the ordinary one
> >> should question it, so comments are requested regarding my explanations
> >> which
> >> lead me to think that they really are what one should expect.
> >>
> >>
> >>
> >> Freq 14.0 14.1 14.2 14.3 14.35
> >>
> >> Gain dbi 13.86 14.05 13.99 13.9 13.87
> >>
> >> F/B 30 25.6 27.47 33.17 32.5
> >>
> >> Zr 45.9 44.5 43.8 43.2 42.8
> >>
> >> Zi -12.87 -6.52 0.6 7.84 11.54
> >>
> >> SWR 1.32 1.2 1.14 1.25 1.34

> >>
> >>
> >> I do not advocate the replacement of the normal yagi with the above
> >> because of building difficulties tho it is my intention to build it.
> >>
> >> Regards
> >> Art
> >>
> >> (Modelled using AO PRO with 80 segment/half wave and set up by a
> >> consumate error generator Grin )
> >>
> >
> > F/B looks too high, you should have some big splinters off the backside.
>
> Why? Do you have splinters in a parabolic dish?

You have individual elements, a parabolic has continous surface. Antennas
always have splinters, with just 5 elements and no blocking you probably
have major lobes on the back side, between elements.
There will be places on the back side of your antenna that add in phase with
two or more elements, which is a lobe or splinter.
Parabolics have a rolloff on the edge to decay the field to minimize the
back lobe.

> > (with a dish it can be hard to get 30)
> > Gain looks to be high for a 1 driven and 5 reflectors.
> If you picture a balloon squashed at one end more than
> normal would not the gain increase?

What is the capture area? Each element captures RF energy and reflects it
back to the driven element in phase with the others.

Your idea has been tried very sucessfully at 450 to microwave, and they now
use flat antennas with each element phase adjusted for delay (same as
curverature of a parabolic dish) One antenna has over a thousand elements.

>
> > Does model take into account mutual effects of the reflectors?
> Yes
> Art
> >
> >
>
>

# 3703. Re: Loop Antenna as Triangle?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-15 21:13:42 UTC
From: Dave Bushong <db@9y.com>
Message-ID: <-6ydnc990OKbNF3cRVn-rQ@adelphia.com>
Source record: 85193

Richard Harrison wrote:
> [...] Pythagoras who found the approximate value of pi by [...]
> He could measure
> straight lengths. He found the value to be 3.1416 for the approximate
> value of pi which multiplied by the radius would equal the perimeter of
> the circle.

He should have measured the diameter instead, which is easier than
measuring the radius (and would have given him the correct answer).

Just yanking your chain. Good discussion.

73,
kz1o

# 3704. Re: H.F Dish Antenna update

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-15 21:27:40 UTC
From: Dave Bushong <db@9y.com>
Message-ID: <44KdnXnwZNvRMV3cRVn-pQ@adelphia.com>
Source record: 85194

Roy Lewallen wrote:
> A plain dipole 76 feet above perfect ground has a gain of about 8.6 dBi

Is that true? I've always heard it was slightly over two dB. I re-read
your post and I don't think I'm taking what you said out of context. Did I?

73,
kz1o

http://www.radio-electronics.com/info/antennas/basics/directivity_gain.php
http://www.tmeg.com/tutorials/antennas/antennas.htm
http://www.starantenna.com/omni_directional_exposed_dipole_antenna.htm
http://www.softwright.com/faq/engineering/FIELD%20INTENSITY%20UNITS.html
http://www.ventenna.com/faq.html
http://tinyurl.com/5zste

# 3705. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!! _____==___ pemluzov

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-15 21:32:14 UTC
From: Simon Smith <s.Smith@btinternet.com>
Message-ID: <cpqagt$keh$1@titan.btinternet.com>
Source record: 85195
Cross-posted to: rec.pyrotechnics,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc

No - Your the Stupid one !!!! This newgroup is for Amature Radio
enthusiasts, not political discussions....
"sconzey" <sconzeyNOSPAM@gmail.com> wrote in message
news:32bj17F3ekkelU1@individual.net...
> Guys, there's this thing you may have heard of called 'democracy'. It's a
> flawed system of government which assumes the majority is right.
>
> This is the government you run under. This is the government that elected
> George Bush. This is the government that elected Kennedy, this is the
> government that elected Nixon, Clinton, and Roosevelt. Like it or not,
> there is nothing you can do about it. The system works. You have the
> President that most of you wanted.
>
> This is why websites like 'sorryeverbody' really piss me off, what are
> they apologising for? Are they apologising that the system works? That the
> President who had the majority of the vote was elected?
>
> The election is over. If you want your view to be heard, quit your
> whining, quit your apologising, quit your tiny blogs that few read. Write
> a letter, go on a march, and in four years time, vote.
>
> *gets off his soapbox*
>
> -sconzey
>
> Roger wrote:
>> On Mon, 08 Nov 2004 21:17:32 GMT, "Rich \(aka Old Dog\)"
>> <Old_dog@atlantic.net> wrote:
>>
>>
>>>"Roger" <Delete-Invallid.stuff.groups@tm.net> wrote in message
>>>news:s1gvo018nua26er35t2uvkrs54ov109s0i@4ax.com...
>>>
>>>>On Mon, 8 Nov 2004 08:59:34 -0600, "Smokey" <telegrapher@hotmail.com>
>>>>wrote:
>>>>
>>>>
>>>>>Correction...
>>>>>
>>>>>50% of the population did not re-elect him. Only 21% of the population
>>>>>did.
>>>>>79% of the American population is innocent.

>>>>
>>>>Actually they didn't vote and the word to describe them is apathetic.
>>>
>>>Maybe the word to describe them is "disgusted" that there were no good
>>>choices
>>>offered...
>>>
>>
>>
>> Now that is certainly a valid point. There have been some good columns in
>> the Orlando Sentinel this past
>> week on that subject.
>>
>> Roger
>>
>>
>>>-Rich
>>>
>>

# 3706. Re: H.F Dish Antenna update

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-15 21:39:44 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <mdb1s0h19sqpnbjqmfelh0d8aa9vcb9e7b@4ax.com>
Source record: 85196

On Wed, 15 Dec 2004 16:27:40 -0500, Dave Bushong <db@9y.com> wrote:

>> A plain dipole 76 feet above perfect ground has a gain of about 8.6 dBi
>
>Is that true? I've always heard it was slightly over two dB. I re-read
>your post and I don't think I'm taking what you said out of context. Did I?

Hi Dave,

Wrong context. Not many can hoist a dipole that high, and finding
perfect ground is even more difficult to find - but once they do, that
2+ dB is undoubtedly measured in dBd (which is to say, compared to a
dipole in free space) which at least one of your links uses also.

73's
Richard Clark, KB7QHC

# 3707. Re: H.F Dish Antenna update

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-15 21:40:42 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41c0aff7_1@127.0.0.1>
Source record: 85009

Dave Bushong wrote:

> Roy Lewallen wrote:
>> A plain dipole 76 feet above perfect ground has a gain of about 8.6 dBi
>
> Is that true? I've always heard it was slightly over two dB. I re-read
> your post and I don't think I'm taking what you said out of context.
> Did I?

Dave, Your 2+ dBi gain is for a dipole in free space Vs an isotropic in free space. Roy chose to compare the dipole over perfect ground to the isotropic in free space. The ~3dB of reflections from the perfect ground cause the additional gain due to constructive interference.
--
73, Cecil http://www.qsl.net/w5dxp

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-----= Over 100,000 Newsgroups - Unlimited Fast Downloads - 19 Servers =-----

# 3708. Re: V: Antenna Software

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-15 21:50:26 UTC
From: Klaus Passler <klauspas@gmx.at>
Message-ID: <cpqbio$j7i$1@newsreader1.utanet.at>
Source record: 85197

Thank you VERY much!

Happy Christmas from Europe

klaus
"Bob Bob" <bcnntp@optusnet.com.au> schrieb im Newsbeitrag
news:sef692-9hc.ln1@p400bob.lse.com.au...
> 4nec2 by Arie is a good start.
>
> Scroll down the page http://www.si-list.org/swindex2.html
>
> Cheers Bob VK2YQA Sydney Australia
>
> Klaus Passler wrote:
>> Hi
>> I'm an austrian student of physics and I am searching for a software
>> which calculates the specification of an broadband antenna?
>>
>> thank you
>>
>> greetings
>> klaus

## 3709. Re: H.F Dish Antenna update

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-15 21:52:01 UTC
From: "aunwin@insightbb.com"
Message-ID: <5m2wd.237660$HA.48003@attbi_s01>
Source record: 85198

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:10s18b985qgf832@corp.supernews.com...
>A plain dipole 76 feet above perfect ground has a gain of about 8.6 dBi -
>surely you've modeled one with AO. So the gain of your antenna over a
>dipole is about 5.3 - 5.5 dB. (This would be a more meaningful way to state
>gain.)

W4RLN ???? said he prefered dbi if I remember correctly. Can't remember the
reason why

> This is just slightly more than the gain from a three element Yagi, and
> less than a typical four element beam.

Difficult to compare Roy as the top reflector position moved beyond the
feed point albiet also much higher.

> The F/B ratio and bandwidth might be better than that of a typical three
> or four element Yagi (or they might not be -- a Yagi can be adjusted for a
> wide range of characteristics),

Well I thought the F/B was exceptional, especially because it stayed
relatively constant
over the band width as did the gain. I especially liked the fact that the
impedance
was in the 50 ohms vicinity where optimum characteristics of an yagi antenna
usually drives
the impedance to a low level. Force 12 emphasises that to get optimum gain
one must accept
unrealistic impedance values among other things
Can you point to a 4 element yagi where its characteristics are better in
every way?
( there must be something where this excels. grin)

>but the gain is certainly not exceptional

I agree, but because it is relatively constant across the band I would
consider it very good.
On the other hand the elements are all straight from end to end on that
model. I may
be optimistic but I am anticipating up to 2 db increase in gain when I
reduce the beam
width to 60 degrees from 70 degrees by shaping the elements into a quasi
parabolic shape.
All in all it seems it will perform quite well and does put into focus the
question of not only
having more than one reflecter but having a reflecters that also provides a

consistent 50 ohm plus impedance.!
This is just an experiment that I am sharing with the antenna group in an
area where I have not seen
any examples in print and not something that one can say... 'Dah Da the
yagi replacement !'
But it does show a method where antenna attributes can be made consistent
across the band
which can be wider than the norm. Comparisons with the Yagi is also
difficult to make because
where a yagi is at a constant height in this case certain elements have an
increased height.

Thanks for the comments, tho I must say I do view the model with more
enthusiasm than you do,
but I do defer to your broader experience and knoweledge.

Best Regards
Art

.
>
> Roy Lewallen, W7EL
>
> art wrote:
>> In the past I mentioned that I was modelling an antenna for 20 metres.
>> This antenna became a single driven element with five reflectors which
>> emulate a dish in it's crudish form not only in position of reflectors
>> but also the elements were not shaped at this time.
>> The following table follows what one would get for a reflective dish
>> used on frequencies in the giga hertz range where the bandwidth is
>> broader than
>> that obtained with the yagi format PLUS relevant atributes stay more
>> constant over a frequency range than that obtained with a super gain
>> type array.
>> The band width is wider than a typical yagi in that the major portion
>> of the radiation is to the front this.This band with is expected to
>> narrow and to increase gain when individual elements are shaped to a
>> parabolic form and
>> it is hoped that forward side lobes will not occur as is normal for a
>> long boom multi element yagi form as used on 440 Mhz.
>> The driven element is at a height of 76 feet over perfect ground.
>>
>> Normally one would say that if results seem out of the ordinary one
>> should question it, so comments are requested regarding my explanations
>> which
>> lead me to think that they really are what one should expect.
>>
>>
>>
>> Freq 14.0 14.1 14.2 14.3 14.35
>>

>> Gain dbi 13.86 14.05 13.99 13.9 13.87
>>
>> F/B 30 25.6 27.47 33.17 32.5
>>
>> Zr 45.9 44.5 43.8 43.2 42.8
>>
>> Zi -12.87 -6.52 0.6 7.84 11.54
>>
>> SWR 1.32 1.2 1.14 1.25 1.34
>>
>>
>> I do not advocate the replacement of the normal yagi with the above
>> because of building difficulties tho it is my intention to build it.
>>
>> Regards
>> Art
>>
>> (Modelled using AO PRO with 80 segment/half wave and set up by a
>> consumate error generator Grin )
>>

# 3710. Re: Loop Antenna as Triangle?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-15 22:02:11 UTC
From: Caveat Lector <oldcl@rome.com>
Message-ID: <Dv2wd.63775$Af.46633@fed1read07>
Source record: 85199

Thank you Roy - excellent as usual.

I recall a RADAR range equation where aperture (capture area) was one of the terms

--
Caveat Lecter (a RADAR tech)

"Roy Lewallen" <w7el@eznec.com> wrote in message news:10s17diimio3k63@corp.supernews.com...
> It applies just as well. However, while the aperture of a parabolic
> reflector is about the area of the reflector, this isn't at all true of
> simple wire antennas like a dipole. For example, a half wave dipole's
> aperture is just slightly larger than a dipole of infinitesimally short
> length, and about equal to that of a loop. The aperture of a loop stays
> almost constant as the loop size is increased, until it gets big enough
> for the pattern to appreciably change.
>
> Aperture is the same as directional gain (not numerically, but when one is
> greater so is the other), which is the same as gain when loss is
> neglected. Since aperture has no direct or obvious connection to physical
> size or dimension of most wire antennas, gain is usually used at HF as a
> descriptive measure rather than aperture. Note that the gain of all but an
> isotropic antenna is different in different directions, and therefore so
> is the aperture.
>
> People with a weak understanding of the principles involved often fall
> into the trap of thinking that a larger antenna must have a larger
> "aperture" or, as amateurs like to call it, "capture area". That mistaken
> notion leads to all sorts of false conclusions. But the general
> misunderstanding of the terms are a real boon to antenna charlatans.
>
> Roy Lewallen, W7EL
>
> Also, the aperture is different in different directions.
>
> Caveat Lector wrote:
>> Just a question
>>
>> In microwave we talk about aperature as a determing factor of antennas.
>>
>> To what extent does this apply to HF ??
>>

# 3711. Re: H.F Dish Antenna update

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-15 22:24:59 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10s1edrrtafjja1@corp.supernews.com>
Source record: 85200

No, you read it correctly.

The gain of a dipole *in free space* is about 2.15 dBi. The gain of a dipole over ground (compared to the standard reference of an isotropic antenna in free space, which is what dBi means) is considerably greater. You get an automatic 3 dB in field intensity when you put a dipole over ground just because the radiated power is concentrated in a hemisphere rather than a whole sphere. Then there can be additional gain due to pattern shaping by interference between the direct and reflected signals -- the effect is exactly the same as you get from a two element array with the elements fed out of phase. This additional directive gain from pattern shaping can be as high as about 5 dB. (See the two element array patterns in Chapter 8 of the ARRL Antenna Book.) So the gain of a horizontal dipole over ground is typically between about 5 and 10 dBi. This is, of course, at the angle at which the pattern is maximum, which is never at the horizon for a horizontally polarized antenna, and in some cases is at a fairly high and perhaps useless angle.

Except for very high radiation angles, ordinary ground is nearly as reflective as perfect ground for horizontally polarized fields. So the above conclusions apply also to real ground as well as perfect ground.

I've argued many times against the use of "dBd" as a measure of antenna gain, unless the meaning of dBd is carefully spelled out. A good deal of misunderstanding results if one person assumes it means the gain relative to a dipole in free space (2.15 dBi) and another believes it means relative to a dipole at the same height as the antenna being discussed (in which case it means about 5 - 10 dBi). I've seen at least one antenna manufacturer cleverly make use of this misunderstanding to make their antennas sound like they have a lot higher gain than they do. A casual reader might have gotten this same impression from reading Art's data, although I know he's not intentionally trying to mislead anyone.

If any of the sources you referenced contradict what I've said, I recommend dropping them a line and suggesting that they correct what they've published.

Roy Lewallen, W7EL

Dave Bushong wrote:
> Roy Lewallen wrote:
>
>> A plain dipole 76 feet above perfect ground has a gain of about 8.6 dBi
>
>
> Is that true? I've always heard it was slightly over two dB. I re-read

> your post and I don't think I'm taking what you said out of context.
> Did I?
>
> 73,
> kz1o
>
> http://www.radio-electronics.com/info/antennas/basics/directivity_gain.php
> http://www.tmeg.com/tutorials/antennas/antennas.htm
> http://www.starantenna.com/omni_directional_exposed_dipole_antenna.htm
> http://www.softwright.com/faq/engineering/FIELD%20INTENSITY%20UNITS.html
> http://www.ventenna.com/faq.html
> http://tinyurl.com/5zste

## 3712. Re: H.F Dish Antenna update

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-15 22:28:38 UTC
From: "aunwin@insightbb.com"
Message-ID: <qU2wd.265963$R05.179113@attbi_s53>
Source record: 85201

```
"Sonie" <nospam@nospam.com> wrote in message
news:32bnjlF3f2udfU1@individual.net...
>
> "aunwin@insightbb.com" <aunwin@insightbb.com@insightbb.com> wrote in
> message
> news:1k%vd.198273$V41.135426@attbi_s52...
>>
>> "hnkie" <nospam@nospam.com> wrote in message
>> news:32bcq7F3jdkltU1@individual.net...
>> >
>> > "art" <aunwin@insightbb.com> wrote in message
>> > news:1103129679.185216.177960@z14g2000cwz.googlegroups.com...
>> >> In the past I mentioned that I was modelling an antenna for 20 metres.
>> >> This antenna became a single driven element with five reflectors which
>> >> emulate a dish in it's crudish form not only in position of reflectors
>> >> but also the elements were not shaped at this time.
>> >> The following table follows what one would get for a reflective dish
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>> >> constant over a frequency range than that obtained with a super gain
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>> >> long boom multi element yagi form as used on 440 Mhz.
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>> >>
>> >> Normally one would say that if results seem out of the ordinary one
>> >> should question it, so comments are requested regarding my
>> >> explanations
>> >> which
>> >> lead me to think that they really are what one should expect.
>> >>
>> >>
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>> >> Freq 14.0 14.1 14.2 14.3 14.35
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>> >> Gain dbi 13.86 14.05 13.99 13.9 13.87
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>> >> F/B 30 25.6 27.47 33.17 32.5
>> >>
```

>> >> Zr 45.9 44.5 43.8 43.2 42.8
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>> >> Zi -12.87 -6.52 0.6 7.84 11.54
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>> >> SWR 1.32 1.2 1.14 1.25 1.34
>> >>
>> >>
>> >> I do not advocate the replacement of the normal yagi with the above
>> >> because of building difficulties tho it is my intention to build it.
>> >>
>> >> Regards
>> >> Art
>> >>
>> >> (Modelled using AO PRO with 80 segment/half wave and set up by a
>> >> consumate error generator Grin )
>> >>
>> >
>> > F/B looks too high, you should have some big splinters off the
>> > backside.
>>
>> Why? Do you have splinters in a parabolic dish?
>
> You have individual elements, a parabolic has continous surface. Antennas
> always have splinters, with just 5 elements and no blocking you probably
> have major lobes on the back side, between elements.

Not so!
Small lobe yes. When you used the term "splinter" I thought it described a
large thin splinter or lobe, which is not the case. Tho the reflectors do
have a space
between them which would have a terrible effect where "reflection "
occurs.In the
case where definitive phase angles occur I doubt what you have referred to
is correct.

> There will be places on the back side of your antenna that add in phase
> with
> two or more elements, which is a lobe or splinter.

see above

> Parabolics have a rolloff on the edge to decay the field to minimize the
> back lobe.

Yes I am hoping for that effect in conjunction with the narrowing of the
main beam.
Decay however is not the word I would chose. Redirect yes.
>
>> > (with a dish it can be hard to get 30)
>> > Gain looks to be high for a 1 driven and 5 reflectors.
>> If you picture a balloon squashed at one end more than
>> normal would not the gain increase?

>
> What is the capture area? Each element captures RF energy and reflects it
> back to the driven element in phase with the others.

Capture area? I don't know ( Now you can see the limits of my expertise)

> Your idea has been tried very sucessfully at 450 to microwave, and they
> now
> use flat antennas with each element phase adjusted for delay (same as
> curverature of a parabolic dish) .

Yes I certainly agree, but for some reason 440 seems to be a cut-off
frequency
and I do not know why. I did try using the director in a parabolic shape but
it was unrewarding. The delay thing you referred to may well be why the
reflectors deviated from a true parabolic shape.

> One antenna has over a thousand elements

1000 elements could well be connected to what you referred to above with
respect to "blocking" where the spacing between elements must be
commensurate with the frequency used.

Regards
Art

>
>>
>> > Does model take into account mutual effects of the reflectors?
>> Yes
>> Art
>> >
>> >
>>
>>
>
>

# 3713. Re: For Sale: Kenwood TS-870 Station

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-15 22:53:57 UTC
From: N8WWM <N8WWM@arrl.net>
Message-ID: <1103151430.ad13d5cbcd639684e72e74faf9d57cbf@teranews>
Source record: 85202
Cross-posted to: alt.ham-radio.marketplace,rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.swap

"laborkei" <laborkeiNOSPAM@hotmail.com> wrote in message
news:sdXvd.16393$Ap1.16271@bignews6.bellsouth.net...
> Auction Ending Soon !
>
> http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&rd=1&item=5737562395
>
>
Will it work on 11 meters? What's a good website for conversion mods for
putting this type gear on 11 meters?

# 3714. Re: Loop Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-15 23:10:29 UTC
From: Ken Fowler <ko6no@yahoo.com>
Message-ID: <SsKdnRLc0bL5WV3cRVn-pQ@comcast.com>
Source record: 85203

On 14-Dec-2004, "William H. O'Hara, III" <whoohara@yahoo.com> wrote:

> "William H. O'Hara, III" <whoohara@yahoo.com> wrote in
> news:Xns95BEE88AEB8F8AX2A3DA5M1512AODKAMO@216.196.97.142:
>
> >
> > I did quickly in the middle of the night. I will
> > look it over and see I can find some problem with
> > the wires. I used EZNEC demo 4.0.
> >
> > Thanks
> > Bill
> >
> >> Maybe you should check your connections and try again. For
> >> what it's worth, the pattern is like most large horizontal
> >> loops, except for two large lobes in the direction of the
> >> top corners of the tee.
> >>
>
> I did get it to model SWR with high reactances(to me anyways).
> Does this seem right? I dunno. Thanks
>
> Bill

The reactive components are just an indication that the applied frequency is too high (+X), or too
low (-X). Adjust the frequency or the size of the loop till X = 0. Or just don't worry about it
and use high impedance parallel line with a tuner.

Ken Fowler

## 3715. Re: For Sale: Kenwood TS-870 Station

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-15 23:39:50 UTC
From: caskamite@hotmail.com
Message-ID: <cpqi0g$59l$1@newsg4.svr.pol.co.uk>
Source record: 85204
Cross-posted to: alt.ham-radio.marketplace,rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc

http://www.mods.dk/ have mods for "wide banding" most amateur H.F. kit

# 3716. Re: Merry F'n Christmas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-16 00:20:37 UTC
From: Psychiatrist to keyclowns <keyklonzrnutjobs@yahoo.com>
Message-ID: <1103156437.937287.73130@z14g2000cwz.googlegroups.com>
Source record: 85205
Cross-posted to: rec.radio.cb, rec.radio.amateur.policy, rec.radio.amateur.antenna, alt.ham-radio.vhf-uhf

Porno stuff deleted
That was a forge. A keyclown who can't take getting smacked did it.

# 3717. Re: FS 8 pill Linear

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-16 00:38:46 UTC
From: U Know Who <AKC-M{AnonymousKeyboardCowardsMaster}@not-here.com>
Message-ID: <qO4wd.15171$jf5.3706@fe1.texas.rr.com>
Source record: 85206
Cross-posted to: rec.radio.cb,rec.radio.amateur.policy,rec.radio.amateur.antenna,alt.ham-radio.vhf-uhf,rec.radio.amateur.misc

"itoldyouiamnotiamnotgeorge" <itoldyouiamnotiamnotgeorge@yahoo.comSpam>
wrote in message news:Xns95C0B919233E51234567890@216.196.97.136...
> <caskamite@hotmail.com> wrote in news:cppo9j$ojj$1@newsg3.svr.pol.co.uk:
>
>> A radio call sign is just a jumble of numbers and letters when NOT
>> used on the radio. Anyone can use anyone's call sign, for an internet
>> name, if it is not transmitted on a radio... Radio call sign is just
>> and only that, a radio call sign...
>> we're not very important really you know.
>
> Yes but when your goal is to harass and troll they will take any bit of
> info true or false and try to use it against you in an effort to bully
> people. But what is funny when you plant those messages and then they look
> like buffons for 4 years chasing you around ...

Yes, you've bitten on many planted messages.

# 3718. Re: Merry F'n Christmas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-16 00:43:57 UTC
From: N8WWM <N8WWM@arrl.net>
Message-ID: <1103158031.eef1cc2c9dabb910185f048c6739e9b9@teranews>
Source record: 85207
Cross-posted to: rec.radio.cb,rec.radio.amateur.policy,rec.radio.amateur.antenna,alt.ham-radio.vhf-uhf

"Burned" by the syphylitic cocks in my mouth and asshole?: Yep, Sure
was.... I was... like I said before, I was sucking when I was 10,
(around 1980), I was originally sucking just anyone, especially born
again Christians and other mentally fucked up Baptist types like me. I
loved those guys when they'd tell me to tongue their assholes.
Condoms were a BIG no-no.... and I believed it!

>
"Psychiatrist to keyclowns" <keyklonzrnutjobs@yahoo.com> wrote in message
news:1103156437.937287.73130@z14g2000cwz.googlegroups.com...
> Porno stuff deleted
> That was a forge. A keyclown who can't take getting smacked did it.
>

## 3719. Re: Merry F'n Christmas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-16 00:47:49 UTC
From: Lancer
Message-ID: <4am1s0hg2gnj0v3napre73is967ev8vngm@news.easynews.com>
Source record: 85208
Cross-posted to: rec.radio.cb,rec.radio.amateur.policy,rec.radio.amateur.antenna,alt.ham-radio.vhf-uhf

On 15 Dec 2004 16:20:37 -0800, "Psychiatrist to keyclowns"
<keyklonzrnutjobs@yahoo.com> wrote:

>Porno stuff deleted
>That was a forge. A keyclown who can't take getting smacked did it.

Yeah right, Its the same type of poems you are famous for Doug.

It must suck to have that piece of shit reputation you have earned..

# 3720. Re: Merry F'n Christmas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-16 00:59:44 UTC
From: KC8QJP <KC8QJP@yahoo.com>
Message-ID: <32c563F3kjr1dU1@individual.net>
Source record: 85209
Cross-posted to: rec.radio.cb,rec.radio.amateur.policy,rec.radio.amateur.antenna,alt.ham-radio.vhf-uhf

"Lancer" <lancer@ock..com> wrote in message
news:4am1s0hg2gnj0v3napre73is967ev8vngm@news.easynews.com...
> On 15 Dec 2004 16:20:37 -0800, "Psychiatrist to keyclowns"
> <keyklonzrnutjobs@yahoo.com> wrote:
>
>>Porno stuff deleted
>>That was a forge. A keyclown who can't take getting smacked did it.
>
> Yeah right, Its the same type of poems you are famous for Doug.
>
> It must suck to have that piece of shit reputation you have earned..
>
>
Yea that's my Doug allright. He writes stuff like that all the time and
posts it in the CB group. I'm so proud of him.

# 3721. Re: Loop Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-16 01:04:36 UTC
From: "William H. O'Hara, III" <whoohara@yahoo.com>
Message-ID: <Xns95C0CC498626BAX2A3DA5M1512AODKAMO@216.196.97.142>
Source record: 85210

> Now, if you find you are experiencing these high reactances
> in nature as well as in modeling; then try one thing:
> Break the wire at a point that is on the opposite side of
> the loop from the feedpoint and see what happens.

I haven't strung the actual one yet.
My EZNEC model got everything high. There wasn't
a frequency better than 8:1. Everything was much
higher. I am going to try with the square loop.

Bill

Bill

# 3722. Re: AM radio reception inside passenger planes?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-16 01:52:28 UTC
From: Some Guy <Some@guy.com>
Message-ID: <41C0EA5C.65B51751@guy.com>
Source record: 85211
Cross-posted to: rec.travel.air,rec.radio.amateur.antenna,sci.electronics.equipment

Dave Holford wrote:

>> All this while the air travel industry is considering allowing
>> passengers to use their own cell phones WHILE THE PLANES ARE
>> IN FLIGHT by adding cell-phone relay stations to the planes
>
> I am familiar with a number of totally RF screened environments
> where use of electronic devices are tightly controlled.
> However, internal relays are used to permit operation of cell
> phones

The point was not how the planes are being equipped to handle
in-flight cell-phone use.

The point was that consideration is being made to allow cell phones to
be used while the planes are in flight. That intentional radiating
PED's are even being considered for in-flight use when so much hype
and concern is being given to the weak radiation potential of some
non-intentional radiators like am/fm radios.

BTW, what is the potential of the local oscillators of small hand-held
LCD-screen TV's to overlap with aviation frequencies?

# 3723. Re: Loop Antenna as Triangle?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-16 02:10:28 UTC
From: richardharrison@webtv.net
Message-ID: <29531-41C0EE94-136@storefull-3258.bay.webtv.net>
Source record: 85212

Dave wrote:
"He should have measured the diameter instead, which is easier than measuring the radius (and should have given him the correct answer)."

Dave is correct. The circumference is pi times the diameter. The radius is only 1/2 the diameter. I miswrote.

Best regards, Richard Harrison, KB5WZI

# 3724. Help: Carolina Window 80

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-16 02:57:01 UTC
From: Steve <sahd@hotmail.com>
Message-ID: <_ridnUxGtp3jZF3cRVn-vg@comcast.com>
Source record: 85213

Am looking for anyone running this antenna or any Carolina Windom

I want to go out and get the Windom 80 but i see no were on there web site
that says the SWR ratio. I run a Auto tuner that you find in most newer
rigs.
Most of the tuners can only tune 3.1 or lower SWR.
So my question is to you that might have used a Windom. How are they on
Match to a Auto Tuner. I also have a Comet - Maldol Covers 8 bands HVU-8
3.5 / 7 / 14 / 21 / 28 / 52 / 144 / 446 / All with in a 9 ft antenna . For
Sale
$150 plus shipping. New it cost $299
You can mount it on a deck and put the radials on one side of the antenna
Makes for a good condo antenna Or mount it on a 10ft pole in the yard. Works
fine.

The antenna is only about a month old.

TNX for any input.

73

Steve

## 3725. Intriguing antenna...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-16 03:49:27 UTC
From: DEMEM@webtv.net
Message-ID: <27525-41C105C7-171@storefull-3252.bay.webtv.net>
Source record: 85214

http://www.sportsmansguide.com/cb/cb.asp?a=170520

http://community-2.webtv.net/DEMEM/LastDaysEndTimes/page2.html

# 3726. Re: FS 8 pill Linear

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-16 04:01:27 UTC
From: Sir Cumference <me@this.ten>
Message-ID: <XfydnfxttvTml1zcRVn-3w@gbronline.com>
Source record: 85216
Cross-posted to: rec.radio.cb,rec.radio.amateur.policy,rec.radio.amateur.antenna,alt.ham-radio.vhf-uhf,rec.radio.amateur.misc

itoldyouiamnotiamnotgeorge wrote:
>>
>>
>>Assuming those sentiments are not forged, it explains why WA3MOJ has
>>almost 1400 look-ups at QRZ. I guess everyone can't imagine how a
>>supposedly bright guy could be such an ass.
>>
>>Ed
>>wb6wsn
>
>
>
> Of course it is a forge these cbers are real moron's they have besmirched
> wa3moj based on assumptions and fantasy claims.

I didn't know a cber had enough brains to do a forgery....learn
something every day.

# 3727. Re: FS 8 pill Linear

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-16 04:02:16 UTC
From: Sir Cumference <me@this.ten>
Message-ID: <Xfydnf9ttvQtl1zcRVn-3w@gbronline.com>
Source record: 85217
Cross-posted to: rec.radio.cb,rec.radio.amateur.policy,rec.radio.amateur.antenna,alt.ham-radio.vhf-uhf,rec.radio.amateur.misc

robert casey wrote:

> WA3MOJ wrote:
>
>> In article <31v3qeF3fkpcmU1@individual.net>, KC8QJP says...
>>
>>> http://tinypic.com/vvqkp
>>>
>>> My friend is building these in his basement. Be LOUD and PROUD!
>>>
>>> $500 firm.
>>>
>>> Contact N8WWM@arrl.net
>>>
>>>
>>
>> My 32 pill will walk the dog on ya mud duck!
>>
>>
>
> And splatter the spectrum and RFI any over the
> air TV reception..... These things are not
> known for spectral purity.

But it's LOUD, that's all the cber cares about.

# 3728. Re: FS 8 pill Linear

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-16 04:04:19 UTC
From: Fred Atkinson <fatkinson@mishmash.com>
Message-ID: <e322s0dbrc67gcn8sscc3a8u4mfkkl5g2h@4ax.com>
Source record: 85215
Cross-posted to: rec.radio.cb,rec.radio.amateur.policy,rec.radio.amateur.antenna,alt.ham-radio.vhf-uhf,rec.radio.amateur.misc

Well,

Some people think that. Even some lawyers do.

http://www.n7qvc.com/what_happened.htm

Fred, WB4AEJ

# 3729. Re: Help: Carolina Window 80

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-16 04:18:53 UTC
From: Bob Miller <rmiller47@satx.rr.com>
Message-ID: <9o22s01bg5njgj54osqaumg634l0hfefg6@4ax.com>
Source record: 85218

On Wed, 15 Dec 2004 21:57:01 -0500, "Steve" <sahd@hotmail.com> wrote:

>Am looking for anyone running this antenna or any Carolina Windom
>
>I want to go out and get the Windom 80 but i see no were on there web site
>that says the SWR ratio. I run a Auto tuner that you find in most newer
>rigs.
>Most of the tuners can only tune 3.1 or lower SWR.
>So my question is to you that might have used a Windom. How are they on
>Match to a Auto Tuner.
>
>
>TNX for any input.
>
>73
>
>Steve
>

I have the RadioWorks catalog, and it generally recommends a manual
tuner over an auto tuner for the Carolina Windoms.

They also push the mjf-914 auto tuner range extender, and indication
an auto tuner by itself might not be enough for all bands.

bob
k5qwg

# 3730. Re: Vertical antenna recomendations

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-16 04:38:56 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <ni8wd.1382$Dv1.1049@bignews6.bellsouth.net>
Source record: 85219

"John" <res0b06f@verizon.net> wrote in message
news:6NYvd.7201$E_6.5061@trnddc04...
> Greetings all....
> I'm slowly getting back into Am. Radio, currently on 2m & 70cm. (I had a
> General before my current call) and my knowledge of current antennas
> and transmission line options is really outdated.
>
> I have a place in the remote areas of North Central Florida that's on a
> bluff about 125 feet above the surrounding forest. About 150' from
> the house is an old Satellite antenna mounting pole (really solid and
> substantial) that's maybe 18 or 20' tall. The big dish isn't there
**********
* First things first - move the house closer to that pole.
*****
> anymore, just the pole. I'm thinking that I would like to mount a
> vertical antenna on the top of the pole. I would anticipate running
> maybe an Icom 706MkIIG on HF and the 2m and 70cm. Many many questions
> come up and I could benefit from people with more current knowledge of
> what's available.
>
> 1. What verticals are recommended these days? (I used to like the
> Butternut) The 706 claims 100 watts on HF and 6M, 50W on 2m and 20w on
440.
>
> 2. With the vertical up about 18', what about radials? can I bury them
> at the base so I don't have guy wires draping down from the top of the
> pole at the base of the Vertical?
>
> 3. What suggestions for coax transmission line to make that long a run?
> I was thinking I would put it in Schedule 40 PVC pipe sealed as if it
> were carrying water, and bury it.
**********
a Long run like that deserves window-line in that pipe.

******
>
> Although I'm out in the middle of the boonies, esthetics is still an
> issue, so I don't want wires showing.
**********
Still married - re-worded " the xyl makes me hide the wires"
**********
>
> Thanks for your comments...
> John

> KD4RN

---
Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.807 / Virus Database: 549 - Release Date: 12/7/2004

# 3731. Re: Loop Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-16 05:27:10 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <4t62s0tnen7er6ckt2i311noe7saabho1t@4ax.com>
Source record: 85220

On Wed, 15 Dec 2004 19:04:36 -0600, "William H. O'Hara, III"
<whoohara@yahoo.com> wrote:
>My EZNEC model got everything high. There wasn't
>a frequency better than 8:1. Everything was much
>higher. I am going to try with the square loop.

Hi Bill,

Still need some particulars:
What frequencies?
What length of wire?
How high?

73's
Richard Clark, KB7QHC

# 3732. Re: Merry F'n Christmas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-16 06:40:07 UTC
From: Landshark <s3buell@sbcglobal.net>
Message-ID: <b5awd.34653$zx1.9141@newssvr13.news.prodigy.com>
Source record: 85221
Cross-posted to: rec.radio.cb,rec.radio.amateur.policy,rec.radio.amateur.antenna,alt.ham-radio.vhf-uhf

"Lancer" <lancer@ock..com> wrote in message
news:4am1s0hg2gnj0v3napre73is967ev8vngm@news.easynews.com...
> On 15 Dec 2004 16:20:37 -0800, "Psychiatrist to keyclowns"
> <keyklonzrnutjobs@yahoo.com> wrote:
>
>>Porno stuff deleted
>>That was a forge. A keyclown who can't take getting smacked did it.
>
> Yeah right, Its the same type of poems you are famous for Doug.
>
> It must suck to have that piece of shit reputation you have earned..

OMG, look at Doug, post ever so nicely. Of course who
could forget just a few of many from our in-house troll N8WWM:

Path:
newssvr25.news.prodigy.com!newsdbm01!newsdbm01.news.prodigy.com!newscon07.news.prodigy.com
!newsmst01a.news.prodigy.com!prodigy.com!news.glorb.com!postnews1.google.com!not-for-mail
From: mopedzadumdum@yahoo.com (MopedzaDUMBASS!)
Newsgroups: rec.radio.cb
Subject: We almost forgot
Date: 17 Apr 2004 06:44:38 -0700
Organization: http://groups.google.com
Lines: 3
Message-ID: <97ebe127.0404170544.47448790@posting.google.com>
NNTP-Posting-Host: 168.143.113.8
Content-Type: text/plain; charset=ISO-8859-1
Content-Transfer-Encoding: 8bit
X-Trace: posting.google.com 1082209479 14630 127.0.0.1 (17 Apr 2004 13:44:39
GMT)
X-Complaints-To: groups-abuse@google.com
NNTP-Posting-Date: Sat, 17 Apr 2004 13:44:39 +0000 (UTC)
Xref: newsmst01a.news.prodigy.com rec.radio.cb:361536

Check out faggot ass mopedophile!

http://www.geocities.com/mopedzadumdum/index.html?1082158996910

Path:
newssvr25.news.prodigy.com!newsdbm01!newsdbm01.news.prodigy.com!newscon07.news.prodigy.com
!newsmst01a.news.prodigy.com!prodigy.com!prodigy.com!news.glorb.com!postnews1.google.com!n
ot-for-mail
From: mopedzadumdum@yahoo.com (MopedzaDUMBASS!)
Newsgroups: rec.radio.cb
Subject: illegal stuff on the NG

Date: 17 Apr 2004 06:43:45 -0700
Organization: http://groups.google.com
Lines: 26
Message-ID: <97ebe127.0404170543.662a6484@posting.google.com>
References: <4080d431_4@127.0.0.1> <oZedndxE5r7zeh3dRVn-jA@comcast.com>
NNTP-Posting-Host: 168.143.113.8
Content-Type: text/plain; charset=ISO-8859-1
Content-Transfer-Encoding: 8bit
X-Trace: posting.google.com 1082209425 14588 127.0.0.1 (17 Apr 2004 13:43:45
GMT)
X-Complaints-To: groups-abuse@google.com
NNTP-Posting-Date: Sat, 17 Apr 2004 13:43:45 +0000 (UTC)
Xref: newsmst01a.news.prodigy.com rec.radio.cb:361535

Yepper, the AKC controls what gets sold on this NG unless the CB
faggots do it by email. We will never stop ratting out auctions and
websites, and CB faggots are powerless to stop us.

Path:
newssvr25.news.prodigy.com!newsdbm01!newsdbm01.news.prodigy.com!newscon07.news.prodigy.com
!newsmst01a.news.prodigy.com!prodigy.com!news.glorb.com!postnews1.google.com!not-for-mail
From: mopedzadumdum@yahoo.com (MopedzaDUMBASS!)
Newsgroups: rec.radio.cb
Subject: landshark's trans-sexual fantasy is right here!
Date: 17 Apr 2004 06:39:31 -0700
Organization: http://groups.google.com
Lines: 3
Message-ID: <97ebe127.0404170539.4c7cdb2c@posting.google.com>
NNTP-Posting-Host: 168.143.113.8
Content-Type: text/plain; charset=ISO-8859-1
Content-Transfer-Encoding: 8bit
X-Trace: posting.google.com 1082209171 14360 127.0.0.1 (17 Apr 2004 13:39:31
GMT)
X-Complaints-To: groups-abuse@google.com
NNTP-Posting-Date: Sat, 17 Apr 2004 13:39:31 +0000 (UTC)
Xref: newsmst01a.news.prodigy.com rec.radio.cb:361534

Here it is you cum slurper

http://www.geocities.com/mopedzadumdum/index.html?1082158996910

Path:
newssvr25.news.prodigy.com!newsdbm01!newsdbm01.news.prodigy.com!newscon07.news.prodigy.com
!newsmst01a.news.prodigy.com!prodigy.com!news.glorb.com!postnews1.google.com!not-for-mail
From: mopedzadumdum@yahoo.com (MopedzaDUMBASS!)
Newsgroups: rec.radio.cb
Subject: Twathed, you know you will jerk off when you see this, you faggot!
Date: 17 Apr 2004 06:38:34 -0700
Organization: http://groups.google.com
Lines: 1
Message-ID: <97ebe127.0404170538.7d4f8372@posting.google.com>
NNTP-Posting-Host: 168.143.113.8

Content-Type: text/plain; charset=ISO-8859-1
Content-Transfer-Encoding: 8bit
X-Trace: posting.google.com 1082209115 14304 127.0.0.1 (17 Apr 2004 13:38:35
GMT)
X-Complaints-To: groups-abuse@google.com
NNTP-Posting-Date: Sat, 17 Apr 2004 13:38:35 +0000 (UTC)
Xref: newsmst01a.news.prodigy.com rec.radio.cb:361533

http://www.geocities.com/mopedzadumdum/index.html?1082158996910

Path:
newssvr25.news.prodigy.com!newsdbm01!newsdbm01.news.prodigy.com!newscon07.news.prodigy.com
!newsmst01a.news.prodigy.com!prodigy.com!news.glorb.com!postnews1.google.com!not-for-mail
From: mopedzadumdum@yahoo.com (MopedzaDUMBASS!)
Newsgroups: rec.radio.cb
Subject: Wanna see Mopedophile?
Date: 17 Apr 2004 06:33:03 -0700
Organization: http://groups.google.com
Lines: 1
Message-ID: <97ebe127.0404170533.25a80dc3@posting.google.com>
NNTP-Posting-Host: 168.143.113.8
Content-Type: text/plain; charset=ISO-8859-1
Content-Transfer-Encoding: 8bit
X-Trace: posting.google.com 1082208784 13900 127.0.0.1 (17 Apr 2004 13:33:04
GMT)
X-Complaints-To: groups-abuse@google.com
NNTP-Posting-Date: Sat, 17 Apr 2004 13:33:04 +0000 (UTC)
Xref: newsmst01a.news.prodigy.com rec.radio.cb:361527

http://www.geocities.com/mopedzadumdum/index.html?1082158996910

Path:
newssvr29.news.prodigy.com!newsdbm01!newsdbm01.news.prodigy.com!newscon07.news.prodigy.com
!newsmst01.news.prodigy.com!prodigy.com!news.glorb.com!postnews2.google.com!not-for-mail
From: nostoppinakc@yahoo.com (Keyclowns Are On Notice)
Newsgroups: rec.radio.cb
Subject: Re: 148 gtl question
Date: 27 Mar 2004 03:05:27 -0800
Organization: http://groups.google.com
Lines: 8
Message-ID: <8fe0c09a.0403270305.65bbdf26@posting.google.com>
References: <1067ko2s1obm330@corp.supernews.com>
<8fe0c09a.0403261145.e8fc9fe@posting.google.com>
<Juednaszetzkhfjd4p2dnA@adelphia.com>
NNTP-Posting-Host: 67.217.70.228
Content-Type: text/plain; charset=ISO-8859-1
Content-Transfer-Encoding: 8bit
X-Trace: posting.google.com 1080385527 29714 127.0.0.1 (27 Mar 2004 11:05:27
GMT)
X-Complaints-To: groups-abuse@google.com
NNTP-Posting-Date: Sat, 27 Mar 2004 11:05:27 +0000 (UTC)

Xref: newsmst01.news.prodigy.com rec.radio.cb:359484

Go back to being cranus...you fool nobody, faggotboy. Thank you for barking again.

"Justin" <123> wrote in message
news:<Juednaszetzkhfjd4p2dnA@adelphia.com>...
> Your a tool..... how does it feel to know that no one wants you... and
> that
> your life is spent sitting in front of a computer tring to talk to other
> people that don't want you? so cry yourself to sleep while holding your
> little VX5 wishing that people would like you....

# 3733. Re: Help: Carolina Window 80

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-16 06:43:40 UTC
From: Rick Frazier <rickf@rickfrazier.com>
Message-ID: <41C12ED5.EF50513B@rickfrazier.com>
Source record: 85122

Steve:

I have the Carolina Windom 160 with the short end up at 40' and the long end up at 10' from the ground. The vertical matching section (the vertical part with the isolator at the bottom) hangs with the isolator about 5 feet from the ground.

I would imagine this is the minimum installation height that works decently with this antenna. It does get heard, and I can hear on all bands from 160 to 10m, however, my Icom AT-500 automatic tuner won't tune it on 20 meters and I need to use an external/additional manual tuner to cover 20m. Looking at the antenna with an antenna analyzer, I find that most of the real dips don't really correspond to the ham bands in my installation. I assume it would be somewhat different if I bothered to try to tune the antenna or if I got it up higher. Alas, I am getting ready to move, so am not putting any additional effort into antennas for this QTH at this point... SWR is all over the map. On some bands, it's almost reasonable, on others way over 10:1... Most of them must be somewhat reasonable, though, or my AT-500 wouldn't auto tune them with decent results.

I can say that it does seem to act somewhat like a top loaded vertical on some bands (I've heard that the vertical matching section is a heavy radiator on this antenna), and seems to have a bit of directionality (off the sides) on others. Perhaps when I get to the new QTH I'll be able to support it higher at both ends and give it a real test... I can tell you that it is definitely better on 40m than tuning my multiband beam (20-10m) for 40m, even at short range...

The db ratings on their web site are either fiction or a wish. They indicate "up to 10db", but I couldn't tell you where that might be, or how you'd have to mount it. Perhaps if you got it up with both ends over a hundred feet high, it would seem like it had 10db of gain at some frequency, but I can't imagine where or why. As an off center fed, horizontal dipole it seems to work OK, but you have to take the DB ratings with a grain of salt (and the best thing to do with the salt is put it on the rim of your Margarita).

Good Luck
-_Rick AH7H

Steve wrote:

> Am looking for anyone running this antenna or any Carolina Windom
>
> I want to go out and get the Windom 80 but i see no were on there web site
> that says the SWR ratio. I run a Auto tuner that you find in most newer
> rigs.
> Most of the tuners can only tune 3.1 or lower SWR.

> So my question is to you that might have used a Windom. How are they on
> Match to a Auto Tuner. I also have a Comet - Maldol Covers 8 bands HVU-8
> 3.5 / 7 / 14 / 21 / 28 / 52 / 144 / 446 / All with in a 9 ft antenna . For
> Sale
> $150 plus shipping. New it cost $299
> You can mount it on a deck and put the radials on one side of the antenna
> Makes for a good condo antenna Or mount it on a 10ft pole in the yard. Works
> fine.
>
> The antenna is only about a month old.
>
> TNX for any input.
>
> 73
>
> Steve

# 3734. Re: Antenna Tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-16 07:16:15 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10s2di1l8lu6jc6@corp.supernews.com>
Source record: 85123

Jack Painter wrote:
>
> As always, I find this group shakes out great comments and explanations. If
> Roy L wants to add something to this I'm sure we would all be interested.
>

I think you gentlemen have pretty well covered the basics. I'll just encourage everyone to read Kevin's (W9CF) excellent treatment at the URL posted by Jack a short while ago.

Roy Lewallen, W7EL

# 3735. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!! _____==___ pemluzov

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-16 07:53:52 UTC
From: Brian Goldsmith <brian.goldsmith@nospam.echo1.com.au>
Message-ID: <kabwd.74633$K7.63926@news-server.bigpond.net.au>
Source record: 85124
Cross-posted to: rec.pyrotechnics,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc

"Simon Smith" <s.Smith@btinternet.com> wrote in message
news:cpqagt$keh$1@titan.btinternet.com...

No - Your the Stupid one !!!! This newgroup is for Amature Radio
enthusiasts, not political discussions....

**** And you wouldn't be stupid,would you?Or is likening this Amateur Radio
newsgroup to a part of a DC motor not intentional?

Brian Goldsmith.

# 3736. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!! _____==___ pemluzov

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-16 08:12:30 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <Erbwd.7186$2r.3878@fed1read02>
Source record: 85125
Cross-posted to: rec.pyrotechnics,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc

"Brian Goldsmith" <brian.goldsmith@nospam.echo1.com.au> wrote in message
news:kabwd.74633$K7.63926@news-server.bigpond.net.au...
>
> "Simon Smith" <s.Smith@btinternet.com> wrote in message
> news:cpqagt$keh$1@titan.btinternet.com...
>
>
> No - Your the Stupid one !!!! This newgroup is for Amature Radio
> enthusiasts, not political discussions....
>
>
> **** And you wouldn't be stupid,would you?Or is likening this Amateur
> Radio
> newsgroup to a part of a DC motor not intentional?
>
> Brian Goldsmith.
>
>

Sorry Brian, but you were reaching for "armature".

Simon's use of "Amature" may seem like a simple lack of spelling ability (or an indication he can't figure out how to turn on his spill chucker), but he has coined a new word that really works.

Taking the root of "Amature" to be "Mature", we all understand that meaning. Adding the "A" prefix is adding a negative conditional (just as "typical" becomes negated in "atypical"). Thus, "Amature" would be the term for "not mature". It really works!

Ed
wb6wsn

# 3737. Re: Strange question about SWR on HV lines

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-16 10:45:26 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10s2pq71msgns7b@corp.supernews.com>
Source record: 85126

Thanks once again for the excellent explanation. What little I absorbed in the required year of power systems coursework has pretty much faded completely out, so I appreciate your taking the time to educate me and the other readers.

Roy Lewallen, W7EL

Nick Kennedy wrote:
> Hello Roy,
>
> Good question and one I had considered addressing in my already over long
> post. In general "the grid" is viewed as an idealized source or sink of
> both real and reactive power. So we can theoretically supply it as much
> power as we wish, and supply or take in as much reactive power as we wish.
> No reactive load banks needed.
> . . .

# 3738. Re: AM radio reception inside passenger planes?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-16 14:32:50 UTC
From: Dave VanHorn <dvanhorn@dvanhorn.org>
Message-ID: <yZ-dnbAHatYtAFzcRVn-vQ@comcast.com>
Source record: 85127
Cross-posted to: rec.travel.air,rec.radio.amateur.antenna,sci.electronics.equipment

On the way back, I spoke with a commercial pilot who was deadheading, on this issue.
He said that it's not all that unusual to hear radio interference once they have allowed the devices on, but when they are in cruise, they aren't normally doing any urgent communications, so it isn't much of an issue. If something comes up, then they will pass the word to shut down the PEDs.

On takeoff and landing though, the comms are much more rapid, and the consequences of missing one transmission are much higher. They need to hear all the comms, not just between themselves and the tower, but what the other pilots are saying as well. Add to this, the fact that aircraft comms are AM, which is inherently muddy, and it's easy to see why they take the extra precautions.

# 3739. Slot Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-16 16:42:48 UTC
From: Matt <nospam_ng@fileholder.net>
Message-ID: <10s3eo7qdsliu65@corp.supernews.com>
Source record: 85128

Can I make a slot antenna out of round pipe rather then rectangular?

I am having a hard time finding inexpensive rectangular tubing for working in 33cm band. Figure I need 2" x 8" and its not cheap. I can get 7" pipe much cheaper.

Matt

# 3740. Re: Stupid Americans! -- Stupid... Stupid... STUPID!!! _____==___ pemluzov

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-16 16:59:47 UTC
From: no_email@please_post.net
Message-ID: <41c1bee3.65449130@Netnews.Comcast.net>
Source record: 85129
Cross-posted to: rec.pyrotechnics,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc

On Thu, 16 Dec 2004 00:12:30 -0800, "Ed Price" <edprice@cox.net>
wrote:

>
>"Brian Goldsmith" <brian.goldsmith@nospam.echo1.com.au> wrote in message
>news:kabwd.74633$K7.63926@news-server.bigpond.net.au...
>>
>> "Simon Smith" <s.Smith@btinternet.com> wrote in message
>> news:cpqagt$keh$1@titan.btinternet.com...
>>
>>
>> No - Your the Stupid one !!!! This newgroup is for Amature Radio
>> enthusiasts, not political discussions....
>>
>>
>> **** And you wouldn't be stupid,would you?Or is likening this Amateur
>> Radio
>> newsgroup to a part of a DC motor not intentional?
>>
>> Brian Goldsmith.
>>
>>
>
>
>Sorry Brian, but you were reaching for "armature".
>
>Simon's use of "Amature" may seem like a simple lack of spelling ability (or
>an indication he can't figure out how to turn on his spill chucker), but he
>has coined a new word that really works.
>
>Taking the root of "Amature" to be "Mature", we all understand that meaning.
>Adding the "A" prefix is adding a negative conditional (just as "typical"
>becomes negated in "atypical"). Thus, "Amature" would be the term for "not
>mature". It really works!
>
>Ed
>wb6wsn
>
Would you all mind not cross posting this thread? Thanks

# 3741. Re: Slot Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-16 17:10:07 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <53g3s05o6o8bgddpn5eagrbkj5gf3mbjh7@4ax.com>
Source record: 85130

On Thu, 16 Dec 2004 10:42:48 -0600, "Matt" <nospam_ng@fileholder.net>
wrote:
>Can I make a slot antenna out of round pipe rather then rectangular?

Hi Matt,

Round pipe is quite common.

73's
Richard Clark, KB7QHC

# 3742. Re: Carolina Window 80

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-16 17:25:20 UTC
From: Larry Moss <larrymoss@citcom.net>
Message-ID: <cpsgdc$5pc8$1@news3.infoave.net>
Source record: 85131

Have used the CW80 and CW40Plus both required a good manual antenna tuner to work all bands covered. Both are excellent antennas. Good Luck! Larry/W4LM
"Steve" <sahd@hotmail.com> wrote in message news:_ridnUxGtp3jZF3cRVn-vg@comcast.com...
> Am looking for anyone running this antenna or any Carolina Windom
>
> I want to go out and get the Windom 80 but i see no were on there web site
> that says the SWR ratio. I run a Auto tuner that you find in most newer
> rigs.
> Most of the tuners can only tune 3.1 or lower SWR.
> So my question is to you that might have used a Windom. How are they on
> Match to a Auto Tuner. I also have a Comet - Maldol Covers 8 bands HVU-8
> 3.5 / 7 / 14 / 21 / 28 / 52 / 144 / 446 / All with in a 9 ft antenna . For
> Sale
> $150 plus shipping. New it cost $299
> You can mount it on a deck and put the radials on one side of the antenna
> Makes for a good condo antenna Or mount it on a 10ft pole in the yard.
> Works fine.
>
> The antenna is only about a month old.
>
>
>
> TNX for any input.
>
> 73
>
> Steve
>
>

## 3743. Re: AM radio reception inside passenger planes?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-16 18:02:01 UTC
From: Bob Myers <nospamplease@address.invalid>
Message-ID: <t4kwd.4637$9f4.2120@news.cpqcorp.net>
Source record: 85132
Cross-posted to: rec.travel.air,rec.radio.amateur.antenna,sci.electronics.equipment

"Some Guy" <Some@guy.com> wrote in message news:41C0EA5C.65B51751@guy.com...
> The point was that consideration is being made to allow cell phones to
> be used while the planes are in flight. That intentional radiating
> PED's are even being considered for in-flight use when so much hype
> and concern is being given to the weak radiation potential of some
> non-intentional radiators like am/fm radios.

Because, as has already been pointed out, of the
differences in emission characteristics (and specifically
the frequency ranges likely to be affected) of the two
classes of devices.

> BTW, what is the potential of the local oscillators of small hand-held
> LCD-screen TV's to overlap with aviation frequencies?

I believe they should be somewhat less than is the case
with an FM receiver, but they're still a bad idea for
the same reason. Note that the analysis of the likely
frequencies provided so far has dealt solely with the
first-order effects of the receiver's local oscillator; we
have NOT discussed harmonics or other unwanted
emissions.

The problem is most obvious with FM receivers because
the standard 1st LO frequency is 10.7 MHz, and the
top of the FM broadcast band is adjacent to the bottom
of the aviation band (108 MHz) - which means that
simply adding the LO frequency to standard FM
broadcast frequencies can take you instantly into overlap
with the bottom 10.7 MHz of the aviation band (and
unfortunately, that's where a lot of the radionavigation
systems within that band tend to be). But this does
not mean that receivers for other services would not
cause similar problems. VHF television covers
frequencies below and above both FM and
aviation (two bands, 54-88 MHz for channels 2
through 6, and 174 to 216 MHz for channels 7
through 13). It is certainly very possible that receivers
intended for these bands would emit in the aviation
band. Other adjacent services that may be of concern
include public-service and commerical communication
bands (i.e., police scanners) and the 2-meter amateur
band.

Bob M.

# 3744. Re: Slot Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-16 18:07:41 UTC
From: Dave VanHorn <dvanhorn@dvanhorn.org>
Message-ID: <t7adnUjvOa5HU1zcRVn-1Q@comcast.com>
Source record: 85134

Sure!

# 3745. Re: AM radio reception inside passenger planes?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-16 18:19:31 UTC
From: TaxSrv <n3_eu@comcast.net>
Message-ID: <jtCdnQ_ppvm5UlzcRVn-1w@comcast.com>
Source record: 85133
Cross-posted to: rec.travel.air,rec.radio.amateur.antenna,sci.electronics.equipment

"Dave VanHorn" wrote:
> They need to hear
> all the comms, not just between themselves and the tower, but what
> the other pilots are saying as well. Add to this, the fact that
aircraft
> comms are AM, which is inherently muddy, and it's easy to see why
> they take the extra precautions.
>

The design of newer comms doesn't help either. If they have automatic squelch, set to break at say 1uV RF in, then obviously it doesn't take much interference to break squelch. Then, they also may have "audio leveling" -- a great feature when commonly using headphones -- but the effect there will be to take a few uV of noise and amplify the audio component to the level you hear when ATC hits you with as much as 50W, and it's heard constantly between transmissions, to be hopefully silenced when ATC talks. But not necessarily the case in monitoring comms of other aircraft, where especially general aviation, less-than-properly-functional 7W units can be relatively weak.

Fred F.

## 3746. Antenna humor

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-16 18:46:03 UTC
From: K7ITM <k7itm@aol.com>
Message-ID: <1103222763.823990.192600@f14g2000cwb.googlegroups.com>
Source record: 85135

Two antennas met on a roof, fell in love and got married.
The ceremony wasn't much, but the reception was excellent.

# 3747. Re: Antenna humor

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-16 19:23:23 UTC
From: fractenna@aol.com
Message-ID: <20041216142323.12301.00002277@mb-m28.aol.com>
Source record: 85136

>Two antennas met on a roof, fell in love and got married.
>The ceremony wasn't much, but the reception was excellent.
>
>
...generated harmonics also!!

:-)

73,
Chip N1IR

# 3748. Re: Antenna humor

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-16 20:08:30 UTC
From: Caveat Lector <oldcl@rome.com>
Message-ID: <2XIwd.65554$Af.9583@fed1read07>
Source record: 85137

"Fractenna" <fractenna@aol.com> wrote in message
news:20041216142323.12301.00002277@mb-m28.aol.com...
> >Two antennas met on a roof, fell in love and got married.
>>The ceremony wasn't much, but the reception was excellent.
>>
>>
> ...generated harmonics also!!

But the harmonics turned out to be parasitic elements

Wrapped the harmonics in dipoles ?
>
> :-)
>
> 73,
> Chip N1IR
--
Caveat Lecter

# 3749. Re: Antenna humor

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-16 20:10:13 UTC
From: chuck <chuck@nospam.net>
Message-ID: <FYIwd.1155$Z47.1011@newsread2.news.atl.earthlink.net>
Source record: 85138

It's what happens when one excites an antenna.

# 3750. Re: Slot Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-16 20:30:56 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cpsr9v$mhg$1@titan.btinternet.com>
Source record: 85139

Matt,

Slot antennas began life as slots in curved surfaces, eg., aircraft fuselages and wings. Most structural alloys will do fine. Rectangular tubes are unusual. They are often unsightly protusions.

The maths is more complicated with curved surfaces.

But if you just copy somebody else's slot, and scale dimensions according to frequency, the maths reduces to simple A*B/C schoolboy arithmetic.

I doubt if you are interested in an exceptionally well-defined beam. So the differences between a rectangular and a circular tube of roughly the same perimeter will probably be of no great consequence.

( Hi Richard - so we meet again!
----
Acqured nom-de-plume, Punchinello.)

# 3751. Re: Antenna humor

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-16 20:52:25 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cpssi9$c0f$1@hercules.btinternet.com>
Source record: 85140

> Two antennas met on a roof, fell in love and got married.
> The ceremony wasn't much, but the reception was excellent.
>
==========

What a nice love story! Presumably their genes were TRANSMITTED
beneficially into the next generation.

( Do a Google on Charles Darwin, the greatest ever iconoclast, and the
PROPAGATION of Species.)
----
Reg, G4FGQ

# 3752. Re: Slot Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-16 22:18:32 UTC
From: Chuckie <nospam@nospam.com>
Message-ID: <32eg0hF3m6c4tU2@individual.net>
Source record: 85141

"Matt" <nospam_ng@fileholder.net> wrote in message
news:10s3eo7qdsliu65@corp.supernews.com...
> Can I make a slot antenna out of round pipe rather then rectangular?
>
> I am having a hard time finding inexpensive rectangular tubing for working
> in 33cm band. Figure I need 2" x 8" and its not cheap. I can get 7" pipe
> much cheaper.
>
> Matt
>

I used gutter pipe (3 by 5 or so) in one band and built one out of brass @
2.5 Ghz worked like a champ.
Slots were 1/4 wave (freespace) and seperated by 1/2 wave (speed of
waveguide, not freespace)
Feed was 1/4 wave sticking into the rect pipe, in the middle.
Round pipe should work just fine.

# 3753. Re: Strange question about SWR on HV lines

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-16 22:43:55 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cpt33b$o17$1@hercules.btinternet.com>
Source record: 85142

It so happens that the impedance transformation property of the short length of roughly 140-ohm twin-line wound on a choke balun have a mildly beneficial effect on the range of impedances presented to the tuner.

The impedances presented to the tuner are slightly smaller than the random multi-band impedances from the antenna via the high impedance (lower-loss) transmission line. The usual practical L and C tuner values can then cope better.

Whereas if a coaxial line, as is sometimes used on a choke balun, its much lower 50-ohm impedance over-does the effect.

A coaxial balun line also has a higher loss (albeit quite small) than a twin line because of its very small inner conductor diameter. A coaxial line is also mechanically more inconvenient to construct and insulate as a balun winding. It is also mechanically more unreliable - it has tight turns round a small radius of thin inner-conductor wire with soft plastic insulation.

So prefer twin, multi-strand, flexible, figure-of-eight, speaker cable or similar, to unreliable small-diameter coaxial stuff when constructing your own choke baluns.

Use HF-grade ferrite rings or rods with a relatively low permeability in the range 200 to 500. 2" outside diameter rings should easily handle a hundred watts or so.

No real amateur should ever purchase a commercial choke balun.

I'm on South African, Western-cape, red, tonight. With aspirin it's supposed to be good for hypertension. I understand elderly doctors of medicine, who ought to know about such things, take 75 milli-gram tablets nightly. But I just take the wine leaving some over for a couple of boiled eggs for breakfast.

Despite such indulgencies I cannot forget the deprived-of-vital-essentials and the continuing USA bombed population of Iraq. Which threatens to expand. It spoils my meals.
---
Reg, G4FGQ

# 3754. just got moonraker evx5000 vertical on ebay can anyone advice me on counterpois

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-16 23:02:07 UTC
From: DAVID BROWNE <david.browne7@ntlworld.com>
Message-ID: <Ptowd.1065$_t4.100@newsfe2-win.ntli.net>
Source record: 85143

hi just got this on ebay it is a trappet vertical for 10m-15-20-40-80m gain of 3.5db its 7.30 meters in hight the makers do radial rods for this antana that looks like mobile wips if i use full lenght 1/4wave counterpois with this antana will it work alot better, berrid or in air if i put the anttana at hight of 10-30ft? thanks dave browne 2e0dmb

# 3755. Re: Amateur Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-16 23:17:57 UTC
From: Shadow_998 <hrd998cc@yahoo.nospam.com>
Message-ID: <FIowd.43406$6q2.34504@newssvr14.news.prodigy.com>
Source record: 85144

Amateurs use antennas; bugs use their antennae..

"Goetz" <goetz@goetz-von.com> wrote in message
news:cpnm2d$5eu$1@hercules.btinternet.com...
> Go to www.euronium.de
>
> The Amateur and PMR Radio Forum.
>
> G�etz.
>
>

## 3756. Re: Antenna humor

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-16 23:26:48 UTC
From: Shadow_998 <hrd998cc@yahoo.nospam.com>
Message-ID: <YQowd.43415$6q2.5166@newssvr14.news.prodigy.com>
Source record: 85146

"chuck" <chuck@nospam.net> wrote in message
> It's what happens when one excites an antenna.

If there is a parasitic element in close proximity to an excited antenna,
the couple develops a major lobe!

Russ
KG6TDX

## 3757. 2 antennas on 802.11 device?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-16 23:27:47 UTC
From: sammyh@3rddim.com
Message-ID: <1103239667.085844.112590@z14g2000cwz.googlegroups.com>
Source record: 85145

I'm trying to extend an 802.11 device using an external antenna. It looks like a typical access point(It's actually a video extender) with 2 small moveable antennas on back. Internally, there are a couple of connectors, which I beleive are MCX connectors.

My question is, is it OK to just connect ONE external antenna to ONE of the connectors.

Thank you for the help,
Sam

# 3758. Re: 2 antennas on 802.11 device?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-16 23:51:45 UTC
From: dplatt@radagast.org
Message-ID: <10s47shk1ljpaf8@corp.supernews.com>
Source record: 85147

>I'm trying to extend an 802.11 device using an external antenna.

FYI, this may or may not be legal. The Part 15 rules require that 802.11 radios and antennas be tested and verified "as a single system". Putting an arbitrarily-chosen antenna on an 802.11 radio is likely to break this rule, and thus void the radio's certification.

[This rule is, of course, frequently broken, but I just thought I ought to warn you.

The rule doesn't apply if you're using an 802.11 radio under Part 97 amateur-radio rules... but, in that case, your use of it must comply with all of the Part 97 requirements e.g. which frequencies you use, the requirement to ID periodically, the no-commercial-use rule, the no-obscuring-the-content rule, the licensed-control-operator rule, third-party traffic restrictions, etc.]

> It
>looks like a typical access point(It's actually a video extender) with
>2 small moveable antennas on back. Internally, there are a couple of
>connectors, which I beleive are MCX connectors.
>
>My question is, is it OK to just connect ONE external antenna to ONE of
>the connectors.

The answer is, I believe, "it depends". It depends on the internal design of the device.

Many 802.11 radios have multiple antennas, with some sort of switching arrangment (often a PIN diode switch), in order to implement a spatial diversity system... this can help improve range and reliability quite a bit, due to the signal's sensitivity to multipath reflections.

In these cases, the on-board MAC/PHY/micro will usually switch back and forth between antennas, to figure out which one is receiving a stronger signal from the peer device. Thus, for reception purposes, having only one external antenna hooked up will probably work fine... the device will select that antenna since it'll "hear" little or nothing via the other (internal) antenna.

The tricky part is transmission. Some devices will transmit back out of whichever antenna they had selected via the diversity polling. Others always transmit out of a single, pre-chosen antenna. Others might switch back and forth either randomly or deterministically.

I don't think there's any way to predict how a given device will react to having only one "good" antenna hooked up. You'll have to test it.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

# 3759. Re: Moonraker EVX5000 HF Vertical - advice on counterpoise?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-16 23:52:20 UTC
From: w9gb <onw9mapsgb@no.ar.spam.rl.net>
Message-ID: <Ucpwd.247798$HA.167316@attbi_s01>
Source record: 85148

"DAVID BROWNE" <david.browne7@ntlworld.com> wrote in message
news:Ptowd.1065$_t4.100@newsfe2-win.ntli.net...
> Hi
>
> I just purchased this antenna (Moonraker EVX 5000) on eBay -- it is a trapped HF vertical
> for 10m-15-20-40-80m with gain of 3.5db and is 7.30 meters in height.
> Their are optional radial rods (10, 15, 20 m) for this antenna., they look like mobile
whips.
> If I use a full length 1/4-wave counterpoise with this antenna, will it work better
> using ground radials or with elevated radials below the antenna base (attached to a
mast)?
> If I put the antenna at height of 10 to 30 feet ?
> Thank you.
>
> Dave Browne
> 2e0dmb
>

Yes,

Moonraker is a UK manufacturer of amateur radio vertical antennas.
Here is their web site:
http://www.moonrakerukltd.com/shop.php?cat_select=12

The EVX5000 currently sells for £ 169.95 .
The EVX-KIT1 is the radial kit for 10, 15 and 20 meter usage and sells for £ 39.95
The EVX-KIT2 is the radial kit for 40 meters and sells for £14.95

ALL 1/4 wave HF vertical antennas requires radials (counterpoise) for proper operation
(Think of this as being the other side of a 1/2 wave dipole that has been rotated 90
degrees).

For a multi-band HF vertical, there needs to be at least one radial for each band of
operation.
Whether it is ground mounted or mounted on a mast, the radials will still be required.

Hy-Gain 1/4 wave (AV-14AVQ) antenna installation manual (roof and ground mount references)
http://www.hy-gain.com/man/pdf/AV-14AVQ.pdf

Some notes on 1/4-wave vertical installations
http://dayton.akorn.net/pipermail/towertalk/2000-February/029314.html

http://www.chem.hawaii.edu/uham/radials.html

w9gb

# 3760. Re: Loop Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-17 00:23:46 UTC
From: "William H. O'Hara, III" <whoohara@yahoo.com>
Message-ID: <Xns95C1C55B497A8AX2A3DA5M1512AODKAMO@216.196.97.142>
Source record: 85149

Richard Clark <kb7qhc@comcast.net> wrote in
news:4t62s0tnen7er6ckt2i311noe7saabho1t@4ax.com:

> On Wed, 15 Dec 2004 19:04:36 -0600, "William H. O'Hara, III"
> <whoohara@yahoo.com> wrote:
>>My EZNEC model got everything high. There wasn't
>>a frequency better than 8:1. Everything was much
>>higher. I am going to try with the square loop.
>
> Hi Bill,
>
> Still need some particulars:
> What frequencies?
> What length of wire?
> How high?
>
> 73's
> Richard Clark, KB7QHC

12# wire at 40 feet in the air with 90 feet to each
side for the basic square. I wanted to see it would
resonate on 80 down.

bill

# 3761. Re: Loop Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-17 01:29:44 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <k5d4s014smle8gkrsae6lig2bsrbcevv14@4ax.com>
Source record: 85151

On Thu, 16 Dec 2004 18:23:46 -0600, "William H. O'Hara, III"
<whoohara@yahoo.com> wrote:

>12# wire at 40 feet in the air with 90 feet to each
>side for the basic square. I wanted to see it would
>resonate on 80 down.

Hi Bill,

Even at a glance and simplistic conversion to metric would say you
were expecting 120M of wire to resonate at 80M. Far too much wire.

73's
Richard Clark, KB7QHC

# 3762. HF Vertical - ground mounted or 10-30 feet in air what works best for 20m-80m tx/rx

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-17 01:30:21 UTC
From: DAVID BROWNE <david.browne7@ntlworld.com>
Message-ID: <NEqwd.1152$_t4.109@newsfe2-win.ntli.net>
Source record: 85150

ground mounted or 10-30 feet in air what works best for 20m-80m tx/rx

thanks david browne 2e0dmb

# 3763. Re: Slot Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-17 02:32:17 UTC
From: Matt <nospam_ng@fileholder.net>
Message-ID: <10s4h9alig1e2a2@corp.supernews.com>
Source record: 85152

> I used gutter pipe (3 by 5 or so) in one band and built one out of brass
> @
> 2.5 Ghz worked like a champ.
> Slots were 1/4 wave (freespace) and seperated by 1/2 wave (speed of
> waveguide, not freespace)

How do you figure the speed in waveguide rather then free space?

Matt

> Feed was 1/4 wave sticking into the rect pipe, in the middle.
> Round pipe should work just fine.

# 3764. Re: HF Vertical - ground mounted or 10-30 feet in air what works best for 20m-80m tx/rx

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-17 02:49:37 UTC
From: w9gb <onw9mapsgb@no.ar.spam.rl.net>
Message-ID: <5Prwd.207108$V41.92015@attbi_s52>
Source record: 85153

"DAVID BROWNE" <david.browne7@ntlworld.com> wrote in message
news:NEqwd.1152$_t4.109@newsfe2-win.ntli.net...
> ground mounted or 10-30 feet in air what works best for 20m-80m tx/rx
>
> thanks david browne 2e0dmb
>
Tech notes on verticals - ground and elevated installations (Bencher)
http://www.bencher.com/pdfs/00361ZZV.pdf

Vertical Antennas - W0DN
http://www.bencher.com/pdfs/00815ZZV.pdf

http://www.bencher.com/pdfs/00816ZZV.pdf

Dirty Little Secrets I (Bencher/Butternut)
http://www.bencher.com/pdfs/00363ZZV.pdf

Dirty Little Secrets II (Bencher/Butternut)
http://www.bencher.com/pdfs/00804ZZV.pdf

# 3765. Re: HF Vertical - ground mounted or 10-30 feet in air what works best for 20m-80m tx/rx

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-17 02:50:10 UTC
From: w9gb <onw9mapsgb@no.ar.spam.rl.net>
Message-ID: <BPrwd.584052$D%.237777@attbi_s51>
Source record: 85154

"DAVID BROWNE" <david.browne7@ntlworld.com> wrote in message
news:NEqwd.1152$_t4.109@newsfe2-win.ntli.net...
> ground mounted or 10-30 feet in air what works best for 20m-80m tx/rx
>
> thanks david browne 2e0dmb
>

WHY RADIALS ?
http://www.bencher.com/pdfs/00803ZZV.pdf

# 3766. Wireless Innovation Contest - Get your innovation noticed!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-17 03:01:32 UTC
From: Andrey <a8421@intergate.bc.ca>
Message-ID: <10s4ivpd09hfu87@corp.supernews.com>
Source record: 85155

Get your innovation noticed! Submit it to Wireless Innovation Contest.

If you've created something that's really making a difference, then we want to hear about it. And, more importantly, we want to tell the World about it.

2005 Wireless Innovation Contest takes place in Vancouver, BC Canada.
The 2005 Wireless Innovation Contest is out to prove how wireless is changing the world. It could be a successful product, an enterprise solution that saved your customer thousands of dollars, a government solution that helped save lives or enhanced education or an entertainment solution that has made the world a lot more fun.

Nokia, Telus Mobility and Industry Partners throw Support Behind the Contest this year. A panel of industry leaders will judge each entry and decide on a winner and runner-ups. Winners of WIC 2005 are rewarded with targeted exposure in media and at trade shows, inclusion in a special case study publication and a one-hour mentor session with the panel of judges.

More information is available at www.winbc.org/contest

# 3767. Re: Slot Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-17 03:36:13 UTC
From: Matt <nospam_ng@fileholder.net>
Message-ID: <10s4l14b28o7sf4@corp.supernews.com>
Source record: 85156

> Slot antennas began life as slots in curved surfaces, eg., aircraft
> fuselages and wings. Most structural alloys will do fine. Rectangular
> tubes are unusual. They are often unsightly protusions.
>
> The maths is more complicated with curved surfaces.
>
> But if you just copy somebody else's slot, and scale dimensions according
> to
> frequency, the maths reduces to simple A*B/C schoolboy arithmetic.

I have not found any round rather then square designs on the net. Do you know of any? If I found one I could scale it down to 33cm. I have not found any 33cm slotted designs period. I have found a calculator for rectangular waveguide though which I ran for 33cm. Not sure how I would adapt its results to round though.

Matt

> I doubt if you are interested in an exceptionally well-defined beam. So
> the
> differences between a rectangular and a circular tube of roughly the same
> perimeter will probably be of no great consequence.
>
> ( Hi Richard - so we meet again!
> ----
> Acqured nom-de-plume, Punchinello.)
>
>

# 3768. Re: Slot Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-17 04:33:37 UTC
From: zaashy <nospam@nospam.com>
Message-ID: <32f71gF3ldj9kU1@individual.net>
Source record: 85159

"Matt" <nospam_ng@fileholder.net> wrote in message
news:10s4h9alig1e2a2@corp.supernews.com...
> > I used gutter pipe (3 by 5 or so) in one band and built one out of
brass
> > @
> > 2.5 Ghz worked like a champ.
> > Slots were 1/4 wave (freespace) and seperated by 1/2 wave (speed of
> > waveguide, not freespace)
>
> How do you figure the speed in waveguide rather then free space?
>

It is in several books, called lambda sub-g
you could probably google it, starting with waveguide transmission.
I can't remember, but I think is is about 75 to 85%
It is determined by the dimentions of the waveguide, (same with coax, and
material slows it down further)
lambda is wavelength in free space.

> Matt
>
>
> > Feed was 1/4 wave sticking into the rect pipe, in the middle.
> > Round pipe should work just fine.
>
>

# 3769. Re: Slot Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-17 04:37:44 UTC
From: zaashy <nospam@nospam.com>
Message-ID: <32f71gF3ldj9kU2@individual.net>
Source record: 85158

"Matt" <nospam_ng@fileholder.net> wrote in message
news:10s4l14b28o7sf4@corp.supernews.com...
> > Slot antennas began life as slots in curved surfaces, eg., aircraft
> > fuselages and wings. Most structural alloys will do fine. Rectangular
> > tubes are unusual. They are often unsightly protusions.
> >
> > The maths is more complicated with curved surfaces.
> >
> > But if you just copy somebody else's slot, and scale dimensions
according
> > to
> > frequency, the maths reduces to simple A*B/C schoolboy arithmetic.
>
> I have not found any round rather then square designs on the net. Do you
> know of any? If I found one I could scale it down to 33cm. I have not
> found any 33cm slotted designs period. I have found a calculator for
> rectangular waveguide though which I ran for 33cm. Not sure how I would
> adapt its results to round though.
>
> Matt

It should be close, yoy may have to move the slots closer of further apart
by the velocity factor inside the waveguide (going from rectangular to
round, round could be faster so slots may be further apart, but not by much)
How many slots, how many wavelengths long?

# 3770. Re: Antenna humor

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-17 04:47:27 UTC
From: Radio Man <puns@verizon.net>
Message-ID: <zxtwd.464$tG3.382@trnddc02>
Source record: 85157

Too much horizontal polarization
"K7ITM" <k7itm@aol.com> wrote in message
news:1103222763.823990.192600@f14g2000cwb.googlegroups.com...
> Two antennas met on a roof, fell in love and got married.
> The ceremony wasn't much, but the reception was excellent.
>

# 3771. Re: Intriguing antenna...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-17 05:14:33 UTC
From: Mike Coslo <mcoslo@adelphia.net>
Message-ID: <8M-dnWfRq4Kn9l_cRVn-vA@adelphia.com>
Source record: 85160

D. Martin wrote:

> http://www.sportsmansguide.com/cb/cb.asp?a=170520

This is a mast kit, not an antenna. I'd caveat that by saying if you could use the mast, and insulated it from ground, you *could* make a 20 meter halfwave antenna. We use a number of these masts during field day.

- Mike KB3EIA -

# 3772. Re: Slot Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-17 06:05:10 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10s4toorimudu21@corp.supernews.com>
Source record: 85162

zaashy wrote:
> "Matt" <nospam_ng@fileholder.net> wrote in message
> news:10s4h9alig1e2a2@corp.supernews.com...
>>
>>How do you figure the speed in waveguide rather then free space?
>>
>
>
> It is in several books, called lambda sub-g
> you could probably google it, starting with waveguide transmission.
> I can't remember, but I think is is about 75 to 85%
> It is determined by the dimentions of the waveguide, (same with coax, and
> material slows it down further)
> lambda is wavelength in free space.

The phase velocity in a hollow, air filled waveguide is always faster than the speed of light, so the velocity factor is always >100%. The amount faster depends on the operating frequency relative to the waveguide's cutoff frequency.

The velocity factor in a hollow, air-filled guide =

1 / sqrt(1 - (fc/f)^2)

where fc = cutoff frequency
f = operating frequency

Too bad you can't get information through a waveguide that fast. It goes at the group velocity, which of course is always slower than the speed of light. Sigh.

Roy Lewallen, W7EL

# 3773. 4:1 coaxial baluns

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-17 06:12:51 UTC
From: Bob Bob <bcnntp@optusnet.com.au>
Message-ID: <40aa92-1i5.ln1@p400bob.lse.com.au>
Source record: 85163

Yes I know I can look this up....

Am currently feeding a 20M single triangular quad loop about 3 metres off the ground with a 1/4 wavelength 75r Q section. Modelling the loop shows a high-ish Z of 180 ohms. Not a problem for this feed method though. (I expected it to be around 120 ohms)

Thinking of making it work on 10M and Z I think is around 350 ohms, but I havent modelled it.

If I use a 4:1 coaxial balun cut for 20M, does the 4:1 effect (now a full wavelength) also occur on 10M?

(Thinking a 3/4 wavelength Q section is the same as a 1/4 wavelength one when it comes to translating the Z)

I am not and will not be using a tuner... (in case anyone wants to suggest it)

TIA Bob VK2YQA

# 3774. Re: just got moonraker evx5000 vertical on ebay can anyone advice me on counterpois

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-17 06:30:54 UTC
From: F8BOE <f8boe-8@bluemail.ch>
Message-ID: <41c26f0c$0$21945$636a15ce@news.free.fr>
Source record: 85161

hello yes and no good choice your trumpet vertical it s better than
pseudo balunized cb flagpoles even if you only get your 3.5 commercial
db on 10m if you can afford the radial kit would be more covenient to
install the antenna on a 30ft high pole but surely less efficient ad
more expensive than full length radials logical it s up to you

DAVID BROWNE wrote:
> hi just got this on ebay it is a trappet vertical for 10m-15-20-40-80m gain
> of 3.5db its 7.30 meters in hight the makers do radial rods for this antana
> that looks like mobile wips if i use full lenght 1/4wave counterpois with
> this antana will it work alot better, berrid or in air if i put the anttana
> at hight of 10-30ft? thanks dave browne 2e0dmb
>
>

## 3775. HF Mobile for Honda Element?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-17 07:23:12 UTC
From: David Snyder Hale <david@isi.mtwilson.edu.REMOVE>
Message-ID: <cpu1h0$1gqt$1@agate.berkeley.edu>
Source record: 85164
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment

I'm looking for suggestions (preferably based on experience, but by no means limited to that) for an HF mobile antenna and mount for a Honda Element. Would like 10-40m. Rig is Yaesu FT-817ND.

TNX,

--
Dave * N3WTK (DM04xf) * http://isi.mtwilson.edu * n3wtk@arrl.net.REMOVE

# 3776. Re: Amateur Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-17 09:53:04 UTC
From: Goetz <goetz@goetz-von.com>
Message-ID: <cpuaa0$n8c$1@sparta.btinternet.com>
Source record: 85165

Sorry and I thought my command of English was good. Thank you for correcting me.
Have you joined up at www.euronium.de yet?
We need people like you that are not afraid to post!!!

Kind regards,

G&#65533;etz.

---

"Shadow_998" <hrd998cc@yahoo.nospam.com> wrote in message
news:FIowd.43406$6q2.34504@newssvr14.news.prodigy.com...
> Amateurs use antennas; bugs use their antennae..
>
> "Goetz" <goetz@goetz-von.com> wrote in message
> news:cpnm2d$5eu$1@hercules.btinternet.com...
> > Go to www.euronium.de
> >
> > The Amateur and PMR Radio Forum.
> >
> > G&#65533;etz.
> >
> >
>
>

# 3777. Re: HF Mobile for Honda Element?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-17 10:11:51 UTC
From: caskamite@hotmail.com
Message-ID: <cpubds$1e6$1@newsg4.svr.pol.co.uk>
Source record: 85166

A Honda elephant, wow
they will copy anything nowadays.
and you want bigger ears on it.

# 3778. Re: Antenna humor

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-17 13:25:34 UTC
From: fazamy@aol.com
Message-ID: <1103289934.053661.145000@f14g2000cwb.googlegroups.com>
Source record: 85167

Radio Man wrote:
> Too much horizontal polarization
> "K7ITM" <k7itm@aol.com> wrote in message
> news:1103222763.823990.192600@f14g2000cwb.googlegroups.com...
> > Two antennas met on a roof, fell in love and got married.
> > The ceremony wasn't much, but the reception was excellent.
> >

The ceremony wasn't much, but the reception was excellent
... because the bad elements were attenuated.

KB2AMY

## 3779. Re: Intriguing antenna...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-17 13:49:13 UTC
From: DEMEM@webtv.net
Message-ID: <2167-41C2E3D9-116@storefull-3251.bay.webtv.net>
Source record: 85168

Well, there is some kind of antenna apparatus that comes with this thing. I bought this http://www.sportsmansguide.com/cb/cb.asp?a=131532 and am really quite satisfied with it. My purposes are primarily shortwave listening. Darren

http://community-2.webtv.net/DEMEM/LastDaysEndTimes/page2.html

# 3780. Re: Amateur Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-17 13:58:34 UTC
From: Dan Richardson <dwr@mailinator.com>
Message-ID: <dgo5s014fn99175p3kol4btg8qpk338dk5@4ax.com>
Source record: 85169

Nothing wrong with your English. Americans normally say antennas. The
British say aerials and in some parts of the world use antennae.

It depends where you are located. The most important thing is to be
understood!

I wonder if the person who feels that antennae is incorrect speaks any
other language?

73,
Danny, K6MHE

On Fri, 17 Dec 2004 09:53:04 +0000 (UTC), "Goetz"
<goetz@goetz-von.com> wrote:

>Sorry and I thought my command of English was good. Thank you for correcting
>me.
>Have you joined up at www.euronium.de yet?
>We need people like you that are not afraid to post!!!
>
>Kind regards,
>
>Gï¿½etz.
>_____________________________________________________
>"Shadow_998" <hrd998cc@yahoo.nospam.com> wrote in message
>news:FIowd.43406$6q2.34504@newssvr14.news.prodigy.com...
>> Amateurs use antennas; bugs use their antennae..
>>
>> "Goetz" <goetz@goetz-von.com> wrote in message
>> news:cpnm2d$5eu$1@hercules.btinternet.com...
>> > Go to www.euronium.de
>> >
>> > The Amateur and PMR Radio Forum.
>> >
>> > Gï¿½etz.
>> >
>> >
>>
>>
>

# 3781. Re: Antenna humor

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-17 14:39:21 UTC
From: Spam <spamcollector@sympatico.ca>
Message-ID: <pan.2004.12.17.14.39.21.571823@sympatico.ca>
Source record: 85170

On Thu, 16 Dec 2004 10:46:03 -0800, K7ITM wrote:

> Two antennas met on a roof, fell in love and got married.
> The ceremony wasn't much, but the reception was excellent.

A perfect match.

# 3782. Feedline for RCVR antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-17 14:53:31 UTC
From: Ken <cprstn54zz@att.net>
Message-ID: <1as5s0dqv25t00e7rnukmampucacvdapac@4ax.com>
Source record: 85171

For travel, I am using a homebrew 17 ft dipole as the HF antenna for
my Icom R-10 wideband receiver. It is made from 27 ft of 28 ga
zip-type ribbon cable with the first 17 ft having the wires separated
(the dipole) and the last ten feet unzipped (the feed line).

(1) Will performance improve if I replace the feedline with coax or
shielded audio cable? I would rather not because that would
substantially increase bulk.

The radio and antenna are ungrounded. Is anything to be gained by
running one side -- the side to BNC jack shield -- to the AC mains
ground or the local plumbing?

Ken KC2JDY

Ken
(to reply via email
remove "zz" from address)

## 3783. Re: Antenna humor

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-17 15:08:04 UTC
From: Walter Maxwell <w2du@iag.net>
Message-ID: <ngt5s0p7dgee1snao68aejchchp3f68qd4@4ax.com>
Source record: 85072

Old hams never die, they just change polarization.

Walt, W2DU

# 3784. Re: Slot Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-17 15:26:51 UTC
From: Matt <nospam_ng@fileholder.net>
Message-ID: <10s5ulse4h8lr15@corp.supernews.com>
Source record: 85073

>> > Slot antennas began life as slots in curved surfaces, eg., aircraft
>> > fuselages and wings. Most structural alloys will do fine. Rectangular
>> > tubes are unusual. They are often unsightly protusions.
>> >
>> > The maths is more complicated with curved surfaces.
>> >
>> > But if you just copy somebody else's slot, and scale dimensions
> according
>> > to
>> > frequency, the maths reduces to simple A*B/C schoolboy arithmetic.
>>
>> I have not found any round rather then square designs on the net. Do you
>> know of any? If I found one I could scale it down to 33cm. I have not
>> found any 33cm slotted designs period. I have found a calculator for
>> rectangular waveguide though which I ran for 33cm. Not sure how I would
>> adapt its results to round though.
>>
>> Matt
>
> It should be close, yoy may have to move the slots closer of further apart
> by the velocity factor inside the waveguide (going from rectangular to
> round, round could be faster so slots may be further apart, but not by
> much)
> How many slots, how many wavelengths long?

I am wanting 10 slots, 5 per side. I think 7" inch aluminun pipe for
waveguide in 33cm band.

Another question. I have heard for injection into the waveguide you should
use a 1/4 wave stub. I also heard its not supposed to farther then half way
into the waveguide. If I were to use 2" x "8 waveguide how would I do that
since the 1/4 wave stub is 3.2 inches and the waveguide is only 2 inches
wide?

Matt

# 3785. Re: Amateur Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-17 15:39:08 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41c2fa30$1_3@127.0.0.1>
Source record: 85005

Goetz wrote:
> Sorry and I thought my command of English was good.
> Thank you for correcting me.

My Merriam-Webster's 10th edition Collegiate Dictionary
makes absolutely no distinction between "antennas" and
"antennae". Those two plurals are interchangeable in
American English whether one is talking about insect
or radio antennas.
--
73, Cecil http://www.qsl.net/w5dxp

----------== Posted via Newsfeed.Com - Uncensored Usenet News ==----------
http://www.newsfeed.com The #1 Newsgroup Service in the World!
-----= Over 100,000 Newsgroups - Unlimited Fast Downloads - 19 Servers =-----

# 3786. Re: HF Mobile for Honda Element?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-17 15:44:01 UTC
From: Henry Kolesnik <kolesnik@sbcglobal.net>
Message-ID: <59Dwd.695$wi2.648@newssvr11.news.prodigy.com>
Source record: 85074

Doesn't Yaesu make 2 screwdrivers for that radio that are real small and
cover 40 on down. I've seen some on smaller cars but not on an Element.

--

73
Hank WD5JFR
"David Snyder Hale" <david@isi.mtwilson.edu.REMOVE> wrote in message
news:cpu1h0$1gqt$1@agate.berkeley.edu...
> I'm looking for suggestions (preferably based on experience, but by no
> means limited to that) for an HF mobile antenna and mount for a Honda
> Element. Would like 10-40m. Rig is Yaesu FT-817ND.
>
> TNX,
>
> --
> Dave * N3WTK (DM04xf) * http://isi.mtwilson.edu * n3wtk@arrl.net.REMOVE

# 3787. Re: Antenna humor

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-17 15:46:35 UTC
From: N4LQ <n4lq@iglou.com>
Message-ID: <41c2ff54$1_1@news.iglou.com>
Source record: 85075

She was a tri-bander and he felt trapped.

--
Steve N4LQ
"Spam" <spamcollector@sympatico.ca> wrote in message
news:pan.2004.12.17.14.39.21.571823@sympatico.ca...
> On Thu, 16 Dec 2004 10:46:03 -0800, K7ITM wrote:
>
>> Two antennas met on a roof, fell in love and got married.
>> The ceremony wasn't much, but the reception was excellent.
>
> A perfect match.
>

# 3788. Re: Strange question about SWR on HV lines

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-17 15:47:51 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cpuv37$l58$1@sparta.btinternet.com>
Source record: 85076

The last chapter.

There's yet another point in favour of twin-balanced line rather than coax for a choke balun.

As previously stated, the length of line wound on it is best not allowed to exceed about 1/8-wavelength at the highest frequency of interest at the line's own velocity factor.

Solid polyethylene coax has an appreciably lower velocity factor than twin line such as figure-of-eight speaker cable. Or two separate wires wound alongside each other.

Consequently, for the same length of balun line in wavelengths, more twin-line turns can wound on the ferrite core than coax turns. This increases LF inductance and extends the lower frequency downwards.

Or alternatively, with a shorter physical length of line on the balun, the higher frequency is extended upwards.

The usable bandwidth of the twin-line version therefore increases roughly in the ratio of the two velocity factors.

A choke balun may indeed be amongst the most simple of radio components to construct - its true complexity being hidden.

But as always with radio, almost anything will work!
----
Reg, G4FGQ

# 3789. Re: 4:1 coaxial baluns

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-17 15:51:06 UTC
From: Zack <zlau@arrl.org>
Message-ID: <1103298666.915237.42130@z14g2000cwz.googlegroups.com>
Source record: 85077

Bob Bob wrote:

> If I use a 4:1 coaxial balun cut for 20M, does the 4:1 effect (now a
> full wavelength) also occur on 10M?

It works on the odd harmonics, not the even--I published a computer model of a 2M/70cm balun in the January 2000 QEX RF column. However, as the coax multiple goes up, the phase change also goes up, compared to a shorter balun, making long baluns impractical.

73--Zack W1VT

Reprints of the article are available for a nominal charge from the ARRL.

> (Thinking a 3/4 wavelength Q section is the same as a 1/4 wavelength
one
> when it comes to translating the Z)
>
> I am not and will not be using a tuner... (in case anyone wants to
> suggest it)
>
> TIA Bob VK2YQA

# 3790. Re: Amateur Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-17 16:00:34 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cpuvr2$m7n$1@sparta.btinternet.com>
Source record: 85079

The original English word is Aerial.

But USA citizens, for the usual reason, had to invent another word. ;o)
==========
>
> I wonder if the person who feels that antennae is incorrect speaks any
> other language?

# 3791. Re: Slot Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-17 16:02:08 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <p506s0pb45u1qd8k7ftl11r3ih4fda3ct7@4ax.com>
Source record: 85078

On Fri, 17 Dec 2004 09:26:51 -0600, "Matt" <nospam_ng@fileholder.net>
wrote:

>Another question. I have heard for injection into the waveguide you should
>use a 1/4 wave stub. I also heard its not supposed to farther then half way
>into the waveguide.

Hi Matt,

What you've "heard" is vague at best. You really need another source
of information, or at least more sources. Try searching the
googlegroups archive of this news group.

In your particular situation (you will eventually have to convert all
this to coax or wire) you either probe excite a waveguide or you loop
excite it.

73's
Richard Clark, KB7QHC

# 3792. Re: 2 antennas on 802.11 device?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-17 16:30:47 UTC
From: sammyh@3rddim.com
Message-ID: <1103301047.835195.251430@z14g2000cwz.googlegroups.com>
Source record: 85080

Thanks for the great info,

About part 15... If I use a unity gain antenna, I should be OK right,
since I am actually decreasing signal strength through a longer antenna
run.

Dave Platt wrote:
> >I'm trying to extend an 802.11 device using an external antenna.
>
> FYI, this may or may not be legal. The Part 15 rules require that
> 802.11 radios and antennas be tested and verified "as a single
> system". Putting an arbitrarily-chosen antenna on an 802.11 radio
> is likely to break this rule, and thus void the radio's
certification.
>
> [This rule is, of course, frequently broken, but I just thought I
> ought to warn you.
>
> The rule doesn't apply if you're using an 802.11 radio under Part 97
> amateur-radio rules... but, in that case, your use of it must comply
> with all of the Part 97 requirements e.g. which frequencies you use,
> the requirement to ID periodically, the no-commercial-use rule, the
> no-obscuring-the-content rule, the licensed-control-operator rule,
> third-party traffic restrictions, etc.]
>
> >
It
> >looks like a typical access point(It's actually a video extender)
with
> >2 small moveable antennas on back. Internally, there are a couple of
> >connectors, which I beleive are MCX connectors.
> >
> >My question is, is it OK to just connect ONE external antenna to ONE
of
> >the connectors.
>
> The answer is, I believe, "it depends". It depends on the internal
> design of the device.
>
> Many 802.11 radios have multiple antennas, with some sort of
switching
> arrangment (often a PIN diode switch), in order to implement a
spatial
> diversity system... this can help improve range and reliability quite
> a bit, due to the signal's sensitivity to multipath reflections.

>
> In these cases, the on-board MAC/PHY/micro will usually switch back
> and forth between antennas, to figure out which one is receiving a
> stronger signal from the peer device. Thus, for reception purposes,
> having only one external antenna hooked up will probably work fine...
> the device will select that antenna since it'll "hear" little or
> nothing via the other (internal) antenna.
>
> The tricky part is transmission. Some devices will transmit back out
> of whichever antenna they had selected via the diversity polling.
> Others always transmit out of a single, pre-chosen antenna. Others
> might switch back and forth either randomly or deterministically.
>
> I don't think there's any way to predict how a given device will
react
> to having only one "good" antenna hooked up. You'll have to test it.
>
> --
> Dave Platt <dplatt@radagast.org>
AE6EO
> Hosting the Jade Warrior home page:
http://www.radagast.org/jade-warrior
> I do _not_ wish to receive unsolicited commercial email, and I will
> boycott any company which has the gall to send me such ads!

## 3793. Re: Antenna humor

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-17 16:39:36 UTC
From: Caveat Lector <oldcl@rome.com>
Message-ID: <dZDwd.42155$ka2.4395@fed1read04>
Source record: 85081

"N4LQ" <n4lq@iglou.com> wrote in message news:41c2ff54$1_1@news.iglou.com...
> She was a tri-bander and he felt trapped.

So they rotated to a new heading? ?
--
Caveat Lecter
>
> --
> Steve N4LQ
> "Spam" <spamcollector@sympatico.ca> wrote in message
> news:pan.2004.12.17.14.39.21.571823@sympatico.ca...
>> On Thu, 16 Dec 2004 10:46:03 -0800, K7ITM wrote:
>>
>>> Two antennas met on a roof, fell in love and got married.
>>> The ceremony wasn't much, but the reception was excellent.
>>
>> A perfect match.
>>
>
>

# 3794. Re: Slot Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-17 16:44:31 UTC
From: Zeso <nospam@nospam.com>
Message-ID: <32ggn8F3mnhd5U1@individual.net>
Source record: 85082

"Matt" <nospam_ng@fileholder.net> wrote in message
news:10s5ulse4h8lr15@corp.supernews.com...
> >> > Slot antennas began life as slots in curved surfaces, eg., aircraft
> >> > fuselages and wings. Most structural alloys will do fine.
Rectangular
> >> > tubes are unusual. They are often unsightly protusions.
> >> >
> >> > The maths is more complicated with curved surfaces.
> >> >
> >> > But if you just copy somebody else's slot, and scale dimensions
> > according
> >> > to
> >> > frequency, the maths reduces to simple A*B/C schoolboy arithmetic.
> >>
> >> I have not found any round rather then square designs on the net. Do
you
> >> know of any? If I found one I could scale it down to 33cm. I have not
> >> found any 33cm slotted designs period. I have found a calculator for
> >> rectangular waveguide though which I ran for 33cm. Not sure how I
would
> >> adapt its results to round though.
> >>
> >> Matt
> >
> > It should be close, yoy may have to move the slots closer of further
apart
> > by the velocity factor inside the waveguide (going from rectangular to
> > round, round could be faster so slots may be further apart, but not by
> > much)
> > How many slots, how many wavelengths long?
>
> I am wanting 10 slots, 5 per side. I think 7" inch aluminun pipe for
> waveguide in 33cm band.
>
> Another question. I have heard for injection into the waveguide you
should
> use a 1/4 wave stub. I also heard its not supposed to farther then half
way
> into the waveguide. If I were to use 2" x "8 waveguide how would I do
that
> since the 1/4 wave stub is 3.2 inches and the waveguide is only 2 inches
> wide?
>
> Matt

>
The 2" by 8" sounds wrong for gernic waveguide. it is usally in about a 1:2 ratio
It may be more like 4" by 8" for 900 Mhz.
The field max is in the middle of the waveguide, and the probe end needs to be there.
ARRL had an article on the rectangular waveguide antenna.
The beam on this antenna if mounted horozontally is very narrow in the horozontal but wide in the vertical. Fan shaped beam.

# 3795. Re: 4:1 coaxial baluns

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-17 17:04:36 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <576dnXrhYM8JjF7cRVn-gg@comcast.com>
Source record: 85083

"Zack" <zlau@arrl.org> wrote in message
news:1103298666.915237.42130@z14g2000cwz.googlegroups.com...
> Bob Bob wrote:
>
>> If I use a 4:1 coaxial balun cut for 20M, does the 4:1 effect (now a
>> full wavelength) also occur on 10M?
>
> It works on the odd harmonics, not the even--I published a computer
> model of a 2M/70cm balun in the January 2000 QEX RF column. However,
> as the coax multiple goes up, the phase change also goes up, compared
> to a shorter balun, making long baluns impractical.
>
> 73--Zack W1VT
>
> Reprints of the article are available for a nominal charge from the
> ARRL.
>
>> (Thinking a 3/4 wavelength Q section is the same as a 1/4 wavelength
> one
>> when it comes to translating the Z)
>>
>> I am not and will not be using a tuner... (in case anyone wants to
>> suggest it)
>>
>> TIA Bob VK2YQA
>
If it is a closed loop, it works on even harmonics. A balun that is rated
3 - 30 MHz should work fine on 10 m. Theoretically, you need a 2:1 or 2.25:1
balun. Note that the latter is (3/2)^2. The 1/4 wave matching section won't
work, because it will be 1/2 WL on 10m.

Tam/WB2TT

# 3796. Re: HF Mobile for Honda Element?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-17 17:35:06 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <10s666u1en6dq80@corp.supernews.com>
Source record: 85084

David Snyder Hale wrote:
> I'm looking for suggestions (preferably based on experience, but by no
> means limited to that) for an HF mobile antenna and mount for a Honda
> Element. Would like 10-40m. Rig is Yaesu FT-817ND.
>
> TNX,
>
Dave;

I have a Honda Element, a friend calls it my Hmmv escape pod, that I run a ICOM 706MKIIG in. I have used both a High Serria Screwdriver and a Perth Plus. I fine tune with the ICOM autotuner.
I am not really happy with the Perth Plus. It doesn't seem to tune very well. It is most likely my installation that is the fault. However, I had very good results with the screwdriver. I stopped using it after it was damaged when it was struck by a car from behind that was struck by another car from behind. Damage to the screwdriver was very minor, the plastic shield was cracked at the top of the moveable element and the receiver hitch mount was broken at the cone joint. I have repaired the plastic and am looking for someone to heliarc the mount.
I also have a Yaesu FT-817 but I do not use it for mobile. I think the controls on the 817 are to small and hard to operate enmobile and is to low in power to get any significant results, YMMV.
As an aside. I recently came out of our local BESTBUY and almost got into the wrong car. Another ham had parked next to me with a identical Element including ham antenna. He, however, was running a whip antenna and a Yaesu radio. For antenna matching he used a open wire style antenna tuner, I am not sure which make/model. He was very happy with his installation.

Good luck with you installation and keep us (me) updated.

Dave WD9BDZ

# 3797. Re: Feedline for RCVR antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-17 17:36:40 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <pl56s0pf94rje0357rnrqhlpbp4j56luf5@4ax.com>
Source record: 85085

On Fri, 17 Dec 2004 09:53:31 -0500, Ken <cprstn54zz@att.net> wrote:

>(1) Will performance improve if I replace the feedline with coax or
>shielded audio cable? I would rather not because that would
>substantially increase bulk.

Hi Ken,

No, not at the short lengths you describe (and you would need to add
an RF choke at the far end to make the investment in coax useful).
You might want to think in terms of RG-174 if you do want to go coax.

>The radio and antenna are ungrounded. Is anything to be gained by
>running one side -- the side to BNC jack shield -- to the AC mains
>ground or the local plumbing?

Sure, it will add to the length of the antenna (the ground path will
undoubtedly be a substantial length wrt wavelength). By the same
token, it could add just as much (or more) noise.

73's
Richard Clark, KB7QHC

# 3798. Re: Amateur Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-17 17:41:25 UTC
From: Dan Richardson <dwr@mailinator.com>
Message-ID: <7h66s0l6m81ekbrlll1oiknl2ro9e3dgrc@4ax.com>
Source record: 85086

You're right Reg. I never could speak English. <G>

Danny

On Fri, 17 Dec 2004 16:00:34 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>The original English word is Aerial.
>
>But USA citizens, for the usual reason, had to invent another word. ;o)
>==================================
>>
>> I wonder if the person who feels that antennae is incorrect speaks any
>> other language?
>

# 3799. Re: Feedline for RCVR antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-17 19:37:58 UTC
From: CW <cmagers@earthlink.net>
Message-ID: <I5-dndo-8aDXqF7cRVn-1Q@comcast.com>
Source record: 85087

No and no.

"Ken" <cprstn54zz@att.net> wrote in message
news:1as5s0dqv25t00e7rnukmampucacvdapac@4ax.com...
> For travel, I am using a homebrew 17 ft dipole as the HF antenna for
> my Icom R-10 wideband receiver. It is made from 27 ft of 28 ga
> zip-type ribbon cable with the first 17 ft having the wires separated
> (the dipole) and the last ten feet unzipped (the feed line).
>
> (1) Will performance improve if I replace the feedline with coax or
> shielded audio cable? I would rather not because that would
> substantially increase bulk.
>
> The radio and antenna are ungrounded. Is anything to be gained by
> running one side -- the side to BNC jack shield -- to the AC mains
> ground or the local plumbing?
>
> Ken KC2JDY
>
>
> Ken
> (to reply via email
> remove "zz" from address)

## 3800. come look at art

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-17 20:16:04 UTC
From: anthony <a_pablos@yahoo.com>
Message-ID: <1103314564.126500.16210@z14g2000cwz.googlegroups.com>
Source record: 85088

here are some great artists websites new to the internet...come check
them out
www.luciaperez.com
www.magulandia.com
the art is great and very cool to look at...enjoy have a great holiday!

# 3801. Re: 2 antennas on 802.11 device?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-17 20:49:04 UTC
From: mp <invalid@invalid.com>
Message-ID: <32gv1mF3l657kU1@individual.net>
Source record: 85089

<sammyh@3rddim.com> wrote in message
news:1103239667.085844.112590@z14g2000cwz.googlegroups.com...
> I'm trying to extend an 802.11 device using an external antenna. It
> looks like a typical access point(It's actually a video extender) with
> 2 small moveable antennas on back. Internally, there are a couple of
> connectors, which I beleive are MCX connectors.
>
> My question is, is it OK to just connect ONE external antenna to ONE of
> the connectors.
>
> Thank you for the help,
> Sam

two antennas are for space diversity, which improves reception,
if the signal is better, it will stay on that one.

# 3802. Re: Too Far

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-17 21:18:39 UTC
From: KC8QJP <KC8QJP@yahoo.com>
Message-ID: <32h0vlF3l9nfaU1@individual.net>
Source record: 85090
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna,alt.ham-radio.vhf-uhf

N8WWM "Psychiatrist to keyclowns" <keyklonzrnutjobs@yahoo.com> wrote in
message news:1103318137.415757.281230@z14g2000cwz.googlegroups.com...
> Uh huh...thats why I travel to AKC homes...cuz it all makes me horney
> so much. I am obsessed with having sex with AKC members, and I'm a sissy.
>
> My own wife says I've have been gay since 1982. I read it on the web,
> so I know it is true.
>
>
Hey honey, I didn't think you wanted me to tell anyone about you being gay.
Oh well my anal warts are acting up agiain so I'm off yo use the
suppositories.

# 3803. Re: Too Far

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-17 21:45:08 UTC
From: Lancer
Message-ID: <0ik6s0dmoscfuu1e93f4qitlf7npj6n0dl@news.easynews.com>
Source record: 85091
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna,alt.ham-radio.vhf-uhf

On Fri, 17 Dec 2004 16:18:39 -0500, "KC8QJP" <KC8QJP@yahoo.com> wrote:

>
>N8WWM "Psychiatrist to keyclowns" <keyklonzrnutjobs@yahoo.com> wrote in
>message news:1103318137.415757.281230@z14g2000cwz.googlegroups.com...
>> Uh huh...thats why I travel to AKC homes...cuz it all makes me horney
>> so much. I am obsessed with having sex with AKC members, and I'm a sissy.
>>
>> My own wife says I've have been gay since 1982. I read it on the web,
>> so I know it is true.
>>
>>
>Hey honey, I didn't think you wanted me to tell anyone about you being gay.
>Oh well my anal warts are acting up agiain so I'm off yo use the
>suppositories.
>

Hey before you go, teach your ignorant (hell what do you call him?) to
quote text when he responds to a post.

Good luck with that wart thing, hard telling where Dougs been...

# 3804. Re: Loop Antenna as Triangle?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-17 22:26:56 UTC
From: k3bu@aol.comNoUsama
Message-ID: <20041217172656.16056.00002141@mb-m02.aol.com>
Source record: 85092

>
>That's almost correct, but not quite. Except for loss, a triangular
>loop, square loop, folded dipole, or round loop radiate equal amounts
>*regardless of their enclosed areas* -- the amount of power that's
>applied to them. The round loop doesn't radiate any more than any of the
>others. None is one more "effective" than another, except that the
>patterns will be different, so one might be more effective than another
>at communicating in a particular direction -- but the round loop won't
>necessarily always be the winner.
>
>Roy Lewallen, W7EL
>

Yea, if you put them in the metal jar and measure number of electrons (or whatever trons), including with dummy load, they will "radiate equal amounts "
.

Loops - delta, quad or circular have some advantage (gain) over folded dipole or dummy load, due to some stacking effect and pattern forming properties. This is what we are interested in and what was the point of asking the question. Just stick the folded dipole and quad or other loop in the EZNEC and you will see if there is any advantage or gain from particular configuration. Just like two phased verticals produce more radiation in particular direction, the same applies to loop vs. dipole. If one wants to nit pick, you could find that most signal (radiation) in particular direction would be coming from circular loop, followed by square, triangular, folded dipole, dummy load, in that order.

>> Making a large loop round -- or increasing its
enclosed area -- won't make it "radiate better" or be "more effective".<<

Stick it in EZNEC and see what you get in favorite direction.

73 + MX Yuri, K3BU.us

# 3805. Re: Merry F'n Christmas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-17 22:37:24 UTC
From: iamnotgeorge2004@yahoo.com
Message-ID: <1103323044.480879.319230@z14g2000cwz.googlegroups.com>
Source record: 85093
Cross-posted to: rec.radio.cb, rec.radio.amateur.policy, rec.radio.amateur.antenna, alt.ham-radio.vhf-uhf

N8WWM wrote:
> I'm dreaming of a cum drenched Christmas
> With every throbbing dick I suck
> Where the peckers glisten
> And keyclowns listen
> To hear me suck and blow
>
> I'm dreaming of a cum drenched Christmas
> With every anal hole I lick
> I loves horny nutsacks
> And spread wide asscracks
> Oh I loves to lick 'em all
>
>
> May you keyclowns have me eat meat
> And may all my dick suckings be sweet

ROTFLMAO steveo see how doug has got you so frustrated you are composing gay poetry about mens nutsacks etc. He got some powerful juju on you dude, he owns you, think about it.

# 3806. Re: Merry F'n Christmas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-17 22:40:52 UTC
From: Steveo <moparholic@hotmail-nospam.com>
Message-ID: <20041217174052.838$hp@newsreader.com>
Source record: 85094
Cross-posted to: rec.radio.cb,rec.radio.amateur.policy,rec.radio.amateur.antenna,alt.ham-radio.vhf-uhf

iamnotgeorge2004@yahoo.com wrote:
> N8WWM wrote:
> > I'm dreaming of a cum drenched Christmas
> > With every throbbing dick I suck
> > Where the peckers glisten
> > And keyclowns listen
> > To hear me suck and blow
> >
> > I'm dreaming of a cum drenched Christmas
> > With every anal hole I lick
> > I loves horny nutsacks
> > And spread wide asscracks
> > Oh I loves to lick 'em all
> >
> >
> > May you keyclowns have me eat meat
> > And may all my dick suckings be sweet
>
> ROTFLMAO steveo see how doug has got you so frustrated you are
> composing gay poetry about mens nutsacks etc. He got some powerful juju
> on you dude, he owns you, think about it.
>
Your hero N8WWM composed that shit, leg humper.

# 3807. Re: Merry F'n Christmas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-17 22:45:20 UTC
From: iamnotgeorge2004@yahoo.com
Message-ID: <1103323520.813226.166350@f14g2000cwb.googlegroups.com>
Source record: 85095
Cross-posted to: rec.radio.cb, rec.radio.amateur.policy, rec.radio.amateur.antenna, alt.ham-radio.vhf-uhf

Steveo wrote:
> iamnotgeorge2004@yahoo.com wrote:
> > N8WWM wrote:
> > > I'm dreaming of a cum drenched Christmas
> > > With every throbbing dick I suck
> > > Where the peckers glisten
> > > And keyclowns listen
> > > To hear me suck and blow
> > >
> > > I'm dreaming of a cum drenched Christmas
> > > With every anal hole I lick
> > > I loves horny nutsacks
> > > And spread wide asscracks
> > > Oh I loves to lick 'em all
> > >
> > >
> > > May you keyclowns have me eat meat
> > > And may all my dick suckings be sweet
> >
> > ROTFLMAO steveo see how doug has got you so frustrated you are
> > composing gay poetry about mens nutsacks etc. He got some powerful
juju
> > on you dude, he owns you, think about it.
> >
> Your hero N8WWM composed that shit, leg humper.

No thats a forge from you Steve. and its even more pathetic that you
are googling gay poetry to forge doug with. He really does control you

# 3808. Re: Merry F'n Christmas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-17 22:54:15 UTC
From: Steveo <moparholic@hotmail-nospam.com>
Message-ID: <20041217175415.768$c4@newsreader.com>
Source record: 85096
Cross-posted to: rec.radio.cb,rec.radio.amateur.policy,rec.radio.amateur.antenna,alt.ham-radio.vhf-uhf

iamnotgeorge2004@yahoo.com wrote:
> Steveo wrote:
> > iamnotgeorge2004@yahoo.com wrote:
> > > N8WWM wrote:
> > > > I'm dreaming of a cum drenched Christmas
> > > > With every throbbing dick I suck
> > > > Where the peckers glisten
> > > > And keyclowns listen
> > > > To hear me suck and blow
> > > >
> > > > I'm dreaming of a cum drenched Christmas
> > > > With every anal hole I lick
> > > > I loves horny nutsacks
> > > > And spread wide asscracks
> > > > Oh I loves to lick 'em all
> > > >
> > > >
> > > > May you keyclowns have me eat meat
> > > > And may all my dick suckings be sweet
> > >
> > > ROTFLMAO steveo see how doug has got you so frustrated you are
> > > composing gay poetry about mens nutsacks etc. He got some powerful
> juju
> > > on you dude, he owns you, think about it.
> > >
> > Your hero N8WWM composed that shit, leg humper.
>
> No thats a forge from you Steve. and its even more pathetic that you
> are googling gay poetry to forge doug with. He really does control you
>
Check google you pathetic freak, Doug Adair composed that sick shit. He
writes crap like that all the time. Now pull your pathetic pinhead out of
his ass and go wash off. You love the fugly felon coward. Did he finish up
with his court ordered shrink yet, and did he feed his children yet?

http://tinyurl.com/4drku

# 3809. Re: Merry F'n Christmas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-17 23:12:12 UTC
From: iamnotgeorge2004@yahoo.com
Message-ID: <1103325132.627411.148740@z14g2000cwz.googlegroups.com>
Source record: 85097
Cross-posted to: rec.radio.cb, rec.radio.amateur.policy, rec.radio.amateur.antenna, alt.ham-radio.vhf-uhf

```
Steveo wrote:
> iamnotgeorge2004@yahoo.com wrote:
> > Steveo wrote:
> > > iamnotgeorge2004@yahoo.com wrote:
> > > > N8WWM wrote:
> > > > > I'm dreaming of a cum drenched Christmas
> > > > > With every throbbing dick I suck
> > > > > Where the peckers glisten
> > > > > And keyclowns listen
> > > > > To hear me suck and blow
> > > > >
> > > > > I'm dreaming of a cum drenched Christmas
> > > > > With every anal hole I lick
> > > > > I loves horny nutsacks
> > > > > And spread wide asscracks
> > > > > Oh I loves to lick 'em all
> > > > >
> > > > >
> > > > > May you keyclowns have me eat meat
> > > > > And may all my dick suckings be sweet
> > > > >
> > > > ROTFLMAO steveo see how doug has got you so frustrated you are
> > > > composing gay poetry about mens nutsacks etc. He got some
powerful
> > juju
> > > > on you dude, he owns you, think about it.
> > > >
> > > Your hero N8WWM composed that shit, leg humper.
> > >
> > No thats a forge from you Steve. and its even more pathetic that
you
> > are googling gay poetry to forge doug with. He really does control
you
> >
> Check google you pathetic freak, Doug Adair composed that sick shit.
He
> writes crap like that all the time. Now pull your pathetic pinhead
out of
> his ass and go wash off. You love the fugly felon coward. Did he
finish up
> with his court ordered shrink yet, and did he feed his children yet?
>
> http://tinyurl.com/4drku
```

so you admit googling for gay poetry, court records, anything to do
with doug. I rest my case, he has got you thinking about him 24/7 LOL

# 3810. Re: Merry F'n Christmas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-17 23:39:28 UTC
From: Steveo <moparholic@hotmail-nospam.com>
Message-ID: <20041217183928.090$cH@newsreader.com>
Source record: 85098
Cross-posted to: rec.radio.cb,rec.radio.amateur.policy,rec.radio.amateur.antenna,alt.ham-radio.vhf-uhf

iamnotgeorge2004@yahoo.com wrote:
> Steveo wrote:
> > iamnotgeorge2004@yahoo.com wrote:
> > > Steveo wrote:
> > > > iamnotgeorge2004@yahoo.com wrote:
> > > > > N8WWM wrote:
> > > > > > I'm dreaming of a cum drenched Christmas
> > > > > > With every throbbing dick I suck
> > > > > > Where the peckers glisten
> > > > > > And keyclowns listen
> > > > > > To hear me suck and blow
> > > > > >
> > > > > > I'm dreaming of a cum drenched Christmas
> > > > > > With every anal hole I lick
> > > > > > I loves horny nutsacks
> > > > > > And spread wide asscracks
> > > > > > Oh I loves to lick 'em all
> > > > > >
> > > > > >
> > > > > > May you keyclowns have me eat meat
> > > > > > And may all my dick suckings be sweet
> > > > > >
> > > > > > ROTFLMAO steveo see how doug has got you so frustrated you are
> > > > > > composing gay poetry about mens nutsacks etc. He got some
> powerful
> > > > juju
> > > > > > on you dude, he owns you, think about it.
> > > > > >
> > > > > Your hero N8WWM composed that shit, leg humper.
> > > >
> > > No thats a forge from you Steve. and its even more pathetic that
> you
> > > are googling gay poetry to forge doug with. He really does control
> you
> > >
> > Check google you pathetic freak, Doug Adair composed that sick shit.
> He
> > writes crap like that all the time. Now pull your pathetic pinhead
> out of
> > his ass and go wash off. You love the fugly felon coward. Did he
> finish up
> > with his court ordered shrink yet, and did he feed his children yet?
> >

> > http://tinyurl.com/4drku
>
> so you admit googling for gay poetry, court records, anything to do
> with doug.
>
Yea, I enjoy exposing the fugly felon. He makes it so easy.
>
> I rest my case, he has got you thinking about him 24/7 LOL
>
Nah, just when I need a good laugh, LOL-boi.

## 3811. Re: Antenna humor

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-17 23:57:29 UTC
From: jder8745@aol.com
Message-ID: <20041217185729.06500.00001249@mb-m22.aol.com>
Source record: 85099

It'll never last. The bride has already noticed some really great guys all around her.

## 3812. How to know if I'm being bugged

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-18 02:36:21 UTC
From: kc7jfv@hotmail.com
Message-ID: <781c67d2.0412171836.44f0e2ba@posting.google.com>
Source record: 85100

Okay I don't have fancy spectrum analyzer. As a matter of fact I don't even have anything besides HF radio. The other day I got a chance to look into 5.7 GHz wireless antenna and I couldn't believe how compact it was. If that device was installed on my ceiling, I doubt I would have seen it. It was the same size as 2 cigarette packs. And it could transmit signals well over 3 miles. Wish there was a easier way to detect RF signals. Any help?

# 3813. Re: How to know if I'm being bugged

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-18 03:08:29 UTC
From: Yakovitiz <invalid@invalid.com>
Message-ID: <32hl95F3mav1tU1@individual.net>
Source record: 85101

Yes. broadband detector, google spy catalog stuff
Small box with antenna, and a led bar on it.

"Jim" <kc7jfv@hotmail.com> wrote in message
news:781c67d2.0412171836.44f0e2ba@posting.google.com...
> Okay I don't have fancy spectrum analyzer. As a matter of fact I don't
even have
> anything besides HF radio. The other day I got a chance to look into 5.7
GHz
> wireless antenna and I couldn't believe how compact it was. If that
device was
> installed on my ceiling, I doubt I would have seen it. It was the same
size as
> 2 cigarette packs. And it could transmit signals well over 3 miles. Wish
there
> was a easier way to detect RF signals. Any help?

# 3814. Re: Loop Antenna as Triangle?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-18 03:17:39 UTC
From: Wes Stewart <n7ws_@_yahoo.com>
Message-ID: <v877s05mn89om39q5b8tdgrrr2pbdgeuo1@4ax.com>
Source record: 85102

On 17 Dec 2004 22:26:56 GMT, k3bu@aol.comNoUsama (Yuri Blanarovich)
wrote:
[snip]

|Stick it in EZNEC and see what you get in favorite direction.

Prehaps a return to the original question is in order. Ed asked:

" I would like to put up a 160 meter loop, fed with 450ohm ladderline.
Although I have enought room, the existing trees would only provide
three supports, pretty much in the shaped of a equalaterral triangle.
How well would a three sided loop work? Should I feed it in the
center of one side?"

The man asked a simple question about what I believe is a horizontal
loop and you bozos started telling him it would work better (be more
efficient) if it was round.

Roy is too nice a guy to put it this way, but I'm not; It won't make a
rat's ass difference whether it's a triangle, a square, a circle or
anything in between. Unless it's 100'+ above ground, it's pretty much
going to radiate straight up; which in this case is its "favorite
direction."

# 3815. Re: Antenna humor

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-18 03:33:30 UTC
From: Spike <gator2@webmail.co.za>
Message-ID: <32hmofF3mn8mjU1@individual.net>
Source record: 85103

What did the famous Polish pianist say when he shot
his wife's lover?? (Ans) Dipole

## 3816. Antennae of Yesteryear

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-18 03:38:04 UTC
From: Spike <gator2@webmail.co.za>
Message-ID: <32hn0uF3geipaU1@individual.net>
Source record: 85104

For those youngsters among us who were not around,
the antennas for automobile radios were not on top of
automobiles until generally around 1935. Where were
they you ask? They were located along and under the
running boards. Generally with a pair of insulators and
an insulated metal band. Trivia..I was there..W6BWY

## 3817. Re: Antennae of Yesteryear

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-18 04:20:53 UTC
From: Dave VanHorn <dvanhorn@dvanhorn.org>
Message-ID: <o_2dnZVYn4-8LV7cRVn-pw@comcast.com>
Source record: 85105

I was thinking in this direction recently..

Specifically, why do modern AM radios totally SUCK?

I used to sit at the drive in and listen to the LA radio stations, from Honolulu, with the stock radio and antenna that came with the car. Now I'm lucky if I can hear four AM stations reasonably well, and this has persisted through three new cars.

## 3818. Ferrite loaded vertical antenna???

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-18 04:25:13 UTC
From: Jim <IHateSpam@NoSpam.net>
Message-ID: <IiOwd.61$0O.53@fe61.usenetserver.com>
Source record: 85106

I was thinking the other day.. I know that can be dangerous at times, but this is waht I came up with...

For VLF and LF receiving, wind some wire around a ferrite rod. Place the rod vertically and feed at the bottom with coax. Of course there would have to be a good ground connection.

Would there be any advantage of this compared to a short vertical antenna?

Yes, yes, I know...'everbody' uses loop antennas for VLF.

Jim

# 3819. Re: Ferrite loaded vertical antenna???

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-18 06:31:47 UTC
From: jimp@specsol-spam-sux.com
Message-ID: <cq0isj$g1m$2@mail.specsol.com>
Source record: 85107

Jim <IHateSpam@nospam.net> wrote:
> I was thinking the other day.. I know that can be dangerous at times, but
> this is waht I came up with...

> For VLF and LF receiving, wind some wire around a ferrite rod. Place the
> rod vertically and feed at the bottom with coax. Of course there would have
> to be a good ground connection.

> Would there be any advantage of this compared to a short vertical antenna?

> Yes, yes, I know...'everbody' uses loop antennas for VLF.

> Jim

Wouldn't it be easier to use it horizontally as a conventional loop to
eliminate the ground and take advantage of the peak/null characteristics?

--
Jim Pennino

Remove -spam-sux to reply.

# 3820. Re: 4:1 coaxial baluns

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-18 06:55:26 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <ztQwd.2912$3X5.1071@bignews3.bellsouth.net>
Source record: 85108

"Bob Bob" <bcnntp@optusnet.com.au> wrote in message
news:40aa92-1i5.ln1@p400bob.lse.com.au...
> Yes I know I can look this up....
>
> Am currently feeding a 20M single triangular quad loop about 3 metres
> off the ground with a 1/4 wavelength 75r Q section. Modelling the loop
> shows a high-ish Z of 180 ohms. Not a problem for this feed method
> though. (I expected it to be around 120 ohms)
>
> Thinking of making it work on 10M and Z I think is around 350 ohms, but
> I havent modelled it.
>
> If I use a 4:1 coaxial balun cut for 20M, does the 4:1 effect (now a
> full wavelength) also occur on 10M?
>
> (Thinking a 3/4 wavelength Q section is the same as a 1/4 wavelength one
> when it comes to translating the Z)
>
> I am not and will not be using a tuner... (in case anyone wants to
> suggest it)
>
> TIA Bob VK2YQA

Instead of a coax balun, its easy enough to wind your own using a toroid,
and a 'transformer-type like that has a wider bandwidth.
those 1/2-wave u-bent baluns are good for one band usually. what you're
doing is catching the phases where the difference in voltage is twice normal
voltage. (Doubled the voltage) square that, and your impedence is
quadrupled.
If you triple the voltage, the impedence increases by 9. If you wind a
transformer you can make it close to any impedence you want....
lets say you have a length of coax is a 1/2-wave on 14.2 mhz
it would be a full wave on 28.4 mhz
it would be 3/4 wave at 21.3 mhz

---
Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.818 / Virus Database: 556 - Release Date: 12/17/2004

## 3821. Re: 4:1 coaxial baluns

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-18 06:58:13 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <9wQwd.2929$3X5.963@bignews3.bellsouth.net>
Source record: 85109

> I am not and will not be using a tuner... (in case anyone wants to
> suggest it)

So did you tell someone that you would never be caught dead using a turner
once?
c'mon, they ain't all that bad, mate.

---
Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.818 / Virus Database: 556 - Release Date: 12/17/2004

# 3822. Re: Wireless Innovation Contest - Get your innovation noticed!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-18 07:03:32 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <9BQwd.2961$3X5.2538@bignews3.bellsouth.net>
Source record: 85110

How about a wireless Solar-powered flashlight
Or a wireless flashlight-powered solar battery

But-
the wireless antenna is the holy graile

"Andrey" <a8421@intergate.bc.ca> wrote in message
news:10s4ivpd09hfu87@corp.supernews.com...
> Get your innovation noticed! Submit it to Wireless Innovation Contest.
>
> If you've created something that's really making a difference, then we
want
> to hear about it. And, more importantly, we want to tell the World about
it.
>
> 2005 Wireless Innovation Contest takes place in Vancouver, BC Canada.
> The 2005 Wireless Innovation Contest is out to prove how wireless is
> changing the world. It could be a successful product, an enterprise
solution
> that saved your customer thousands of dollars, a government solution that
> helped save lives or enhanced education or an entertainment solution that
> has made the world a lot more fun.
>
> Nokia, Telus Mobility and Industry Partners throw Support Behind
> the Contest this year. A panel of industry leaders will judge each entry
> and decide on a winner and runner-ups. Winners of WIC 2005 are rewarded
> with targeted exposure in media and at trade shows, inclusion in a special
> case study publication and a one-hour mentor session with the panel of
> judges.
>
> More information is available at www.winbc.org/contest
>
>
>
>
>

---
Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.818 / Virus Database: 556 - Release Date: 12/17/2004

# 3823. Re: 4:1 coaxial baluns

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-18 07:20:35 UTC
From: Bob Bob <bcnntp@optusnet.com.au>
Message-ID: <4b2d92-vim.ln1@p400bob.lse.com.au>
Source record: 85111

Gidday Hal

Its a function of difficult placement (rented house) and limited stay...
And I havent got one and dont want to make/buy as I am about to move to
another country. <grin> Also the HF privs are pretty new to me and when
I move I'll lose them!

One day...

Tnxs for your previous comments BTW. So a fullwave length of coax as 4:1
balun 0n 10M will have a minimal effect on the end of feedline Z. I'd
need an antenna that exhibited 50r on 10M and 200r on 20M.

I have been often suspicious of toroidal baluns (loss etc). I might make
one and plug it into the network analyzer at work to test.

Cheers Bob

Subsititute bcnuup for bcnntp if you wish to email direct.

Hal Rosser wrote:
>>I am not and will not be using a tuner... (in case anyone wants to
>>suggest it)
>
>
> So did you tell someone that you would never be caught dead using a turner
> once?
> c'mon, they ain't all that bad, mate.
>
>
> ---
> Outgoing mail is certified Virus Free.
> Checked by AVG anti-virus system (http://www.grisoft.com).
> Version: 6.0.818 / Virus Database: 556 - Release Date: 12/17/2004
>
>

# 3824. Re: Slot Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-18 08:52:07 UTC
From: Darko <9a3li_MAKNI_@hamradio.hr>
Message-ID: <cq0r38$f0f$1@bagan.srce.hr>
Source record: 85112

Richard Clark wrote:
> On Thu, 16 Dec 2004 10:42:48 -0600, "Matt" <nospam_ng@fileholder.net>
> wrote:
>
>>Can I make a slot antenna out of round pipe rather then rectangular?
>
>
> Hi Matt,
>
> Round pipe is quite common.

Any URL with examples, plans, calcilations ?
Any book ?

All I find are rectangular WG slot.
Only "Alford Slot" but that isnt what we talk about.

73!

# 3825. Re: Ferrite loaded vertical antenna???

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-18 12:25:24 UTC
From: Jim <IHateSpam@NoSpam.net>
Message-ID: <SkVwd.95$0O.82@fe61.usenetserver.com>
Source record: 85113

<jimp@specsol-spam-sux.com> wrote in message
news:cq0isj$g1m$2@mail.specsol.com...
> Jim <IHateSpam@nospam.net> wrote:
> Wouldn't it be easier to use it horizontally as a conventional loop to
> eliminate the ground and take advantage of the peak/null characteristics?
>
>
Ah, yes. One of the responses I expected.

The null from a loop is very sharp, and is good for nulling out an
interfering signal, but what about improving the S/N of the desired signal?

My idea, was to use it in combination with a 'conventional' loop. This will
produce a 'one sided' pattern reducing the noise by as much as 3 dB. This is
typically called a sense antenna.

Jim

## 3826. Re: Antennae of Yesteryear

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-18 12:26:58 UTC
From: Jim <IHateSpam@NoSpam.net>
Message-ID: <kmVwd.96$0O.89@fe61.usenetserver.com>
Source record: 85114

"Bill Turner" <noway@nohow.com> wrote in message
news:s5h7s0hlk9foltkgngm0nadopusgavp5gb@4ax.com...
> On Fri, 17 Dec 2004 23:20:53 -0500, "Dave VanHorn"
> <dvanhorn@dvanhorn.org> wrote:
>>Specifically, why do modern AM radios totally SUCK?

It is a conspiracy by the leftist liberals to keep people from listening to conservative talk radio.

# 3827. Re: HF Vertical - ground mounted or 10-30 feet in air what works best for 20m-80m tx/rx

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-18 12:32:03 UTC
From: "H. Adam Stevens, NQ5H" <NQ5H@ARRL.net>
Message-ID: <10s88q02bhh0p5e@corp.supernews.com>
Source record: 85115

"DAVID BROWNE" <david.browne7@ntlworld.com> wrote in message
news:NEqwd.1152$_t4.109@newsfe2-win.ntli.net...
> ground mounted or 10-30 feet in air what works best for 20m-80m tx/rx
>
> thanks david browne 2e0dmb
>
>
Hi OM
I have a SteppIR 40-6 vertical on the peak of a 3500 sq ft metal roof.
I like it.

What "works best " is a nebulous notion, especially over such a wide
frequency range.
If you haven't reviewed a few texts, at least the ARRL stuff, do so and then
get back to us.
If you have, my apologies and a few simplifications:
A pole mounted vertical with no ground plane must necessarily be a 1/2 wave
antenna.
Traps are lossy;
Full-size, resonant, matched antennas "work best".
73
H.
NQ5H

# 3828. Re: Antenna humor

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-18 12:34:29 UTC
From: "H. Adam Stevens, NQ5H" <NQ5H@ARRL.net>
Message-ID: <10s88uho4l90mf6@corp.supernews.com>
Source record: 85116

Too much food, too much whisky, sure.
But not too much horizontal polarization.
"Radio Man" <puns@verizon.net> wrote in message
news:zxtwd.464$tG3.382@trnddc02...
> Too much horizontal polarization
> "K7ITM" <k7itm@aol.com> wrote in message
> news:1103222763.823990.192600@f14g2000cwb.googlegroups.com...
>> Two antennas met on a roof, fell in love and got married.
>> The ceremony wasn't much, but the reception was excellent.
>>
>
>

# 3829. Re: Antennae of Yesteryear

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-18 13:23:09 UTC
From: Russ <carlzomer@hotmail.com>
Message-ID: <o7b8s05km2gvfsp2l4bbfe4tp1ns8fmeu5@4ax.com>
Source record: 85117

On Fri, 17 Dec 2004 20:38:04 -0700, "Spike" <gator2@webmail.co.za>
wrote:

>For those youngsters among us who were not around,
>the antennas for automobile radios were not on top of
>automobiles until generally around 1935. Where were
>they you ask? They were located along and under the
>running boards. Generally with a pair of insulators and
>an insulated metal band. Trivia..I was there..W6BWY
>

Because people aren't willing to pay for a decent AM radio for the
car. They want a CD player and good amps and speakers. The AM part
of the sound system is typically a "one chip" design. The FM tuner
isn't much better either. The old AM radios were horses. They were
multi-tube, multi-conversion designs with selectivity and sensitivity
to spare. It's all there was at the time. Modern cars, in fact all
modern consumer devices are designed to be manufactured as quickly and
as cheaply as possible. When it breaks, throw it away and get a new
one. Besides, it'll be obsolete next week anyway. You will never see
a classic '98 Olds in fifty years, it won't last that long. Of
course, I'm leaving out the whole discussion of "high fidelity" in the
car. Hint: wind noise is the loudest thing in the car at highway
speeds.

Russ

# 3830. Re: Ferrite loaded vertical antenna???

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-18 14:09:46 UTC
From: Yakovitiz <invalid@invalid.com>
Message-ID: <32is10F3ksduqU1@individual.net>
Source record: 85118

good for receive, bad for transmit, ferrite is non linear and will produce
spurs if power is high.

"Jim" <IHateSpam@NoSpam.net> wrote in message
news:IiOwd.61$0O.53@fe61.usenetserver.com...
> I was thinking the other day.. I know that can be dangerous at times, but
> this is waht I came up with...
>
> For VLF and LF receiving, wind some wire around a ferrite rod. Place the
> rod vertically and feed at the bottom with coax. Of course there would
have
> to be a good ground connection.
>
> Would there be any advantage of this compared to a short vertical antenna?
>
> Yes, yes, I know...'everbody' uses loop antennas for VLF.
>
> Jim
>
>
>

# 3831. Re: Antennae of Yesteryear

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-18 14:58:32 UTC
From: Dan Richardson <dwr@mailinator.com>
Message-ID: <d9h8s01ic4rs00fhe7h1k41oepn1jkte9k@4ax.com>
Source record: 85119

On Fri, 17 Dec 2004 20:38:04 -0700, "Spike" <gator2@webmail.co.za>
wrote:

>For those youngsters among us who were not around,
>the antennas for automobile radios were not on top of
>automobiles until generally around 1935. Where were
>they you ask? They were located along and under the
>running boards. Generally with a pair of insulators and
>an insulated metal band. Trivia..I was there..W6BWY
>

Yep, I had a '38 Chevy with that setup and the whole thing was covered
with dirt and grime.

Danny, K6MHE

# 3832. Re: Merry F'n Christmas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-18 15:14:07 UTC
From: Lancer
Message-ID: <uth8s0ljv5tnvo2psm7n5u3448esnj21ge@news.easynews.com>
Source record: 85120
Cross-posted to: rec.radio.cb,rec.radio.amateur.policy,rec.radio.amateur.antenna,alt.ham-radio.vhf-uhf

On 17 Dec 2004 15:12:12 -0800, iamnotgeorge2004@yahoo.com wrote:

>Steveo wrote:
>> iamnotgeorge2004@yahoo.com wrote:
>> > Steveo wrote:
>> > > iamnotgeorge2004@yahoo.com wrote:
>> > > > N8WWM wrote:
>> > > > > I'm dreaming of a cum drenched Christmas
>> > > > > With every throbbing dick I suck
>> > > > > Where the peckers glisten
>> > > > > And keyclowns listen
>> > > > > To hear me suck and blow
>> > > > >
>> > > > > I'm dreaming of a cum drenched Christmas
>> > > > > With every anal hole I lick
>> > > > > I loves horny nutsacks
>> > > > > And spread wide asscracks
>> > > > > Oh I loves to lick 'em all
>> > > > >
>> > > > >
>> > > > > May you keyclowns have me eat meat
>> > > > > And may all my dick suckings be sweet
>> > > > >
>> > > > ROTFLMAO steveo see how doug has got you so frustrated you are
>> > > > composing gay poetry about mens nutsacks etc. He got some
>powerful
>> > juju
>> > > > on you dude, he owns you, think about it.
>> > > > >
>> > > Your hero N8WWM composed that shit, leg humper.
>> >
>> > No thats a forge from you Steve. and its even more pathetic that
>you
>> > are googling gay poetry to forge doug with. He really does control
>you
>> >
>> Check google you pathetic freak, Doug Adair composed that sick shit.
>He
>> writes crap like that all the time. Now pull your pathetic pinhead
>out of
>> his ass and go wash off. You love the fugly felon coward. Did he
>finish up
>> with his court ordered shrink yet, and did he feed his children yet?

>>
>> http://tinyurl.com/4drku
>
>
>
>so you admit googling for gay poetry, court records, anything to do
>with doug. I rest my case, he has got you thinking about him 24/7 LOL

Now thats funny, aren't you the same dimwit that admitted to reading
gay newsgroups, just in case someone was forging WA3MOJ? LOL

# 3833. Re: Antennae of Yesteryear

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-18 15:27:44 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41c44c90$1_1@127.0.0.1>
Source record: 85007

Russ wrote:
> Because people aren't willing to pay for a decent AM radio for the
> car.

How about a decent AM antenna with an IC-706?
--
73, Cecil http://www.qsl.net/s5dxp

----------== Posted via Newsfeed.Com - Uncensored Usenet News ==----------
http://www.newsfeed.com The #1 Newsgroup Service in the World!
-----= Over 100,000 Newsgroups - Unlimited Fast Downloads - 19 Servers =-----

# 3834. Re: 4:1 coaxial baluns

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-18 16:09:32 UTC
From: Dale Parfitt <par@parelectronics.com>
Message-ID: <0DYwd.188$h.36@trnddc04>
Source record: 85121

" > I have been often suspicious of toroidal baluns (loss etc). I might make
> one and plug it into the network analyzer at work to test.
>
> Cheers Bob
>
>For loss: Make 2- connect them back to back for the network analyzer, then
divide the observed loss by 2.

Dale W4OP

# 3835. New Version of the Plotting Package for SmartSmith

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-18 16:55:35 UTC
From: w9dmk@crosslink.net
Message-ID: <41c46017.13485390@news.crosslink.net>
Source record: 85022

Version 3.0.0 of the Plotting Package is available for download at
http://www.qsl.net/w9dmk/SWDownloads/NetworkProcessor300.zip

Just unzip it into the same folder in which SmartSmith 1.6.2 is
installed.

This new version allows you to choose between linear and logarithmic
plots and also allows you to freely re-size the plot screen.

73,

Bob, W9DMK, Dahlgren, VA
http://www.qsl.net/w9dmk

# 3836. Re: Merry F'n Christmas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-18 16:59:10 UTC
From: Smooth G <SmoothG@infoworks.com>
Message-ID: <ogo8s058n6oit2e0095inrrng8ecmu5906@4ax.com>
Source record: 85023
Cross-posted to: rec.radio.cb,rec.radio.amateur.policy,rec.radio.amateur.antenna,alt.ham-radio.vhf-uhf

On Sat, 18 Dec 2004 16:40:49 GMT, Lancer <lancer@rock..com> wrote:

>On Sat, 18 Dec 2004 10:22:13 -0600, itoldyouiamnotiamnotgeorge
><itoldyouiamnotiamnotgeorge@yahoo.comSpam> wrote:
>
>>Lancer <lancer@ock..com> wrote in
>>news:uth8s0ljv5tnvo2psm7n5u3448esnj21ge@news.easynews.com:
>>
>>> On 17 Dec 2004 15:12:12 -0800, iamnotgeorge2004@yahoo.com wrote:
>>>
>>>>Steveo wrote:
>>>>> iamnotgeorge2004@yahoo.com wrote:
>>>>> > Steveo wrote:
>>>>> > > iamnotgeorge2004@yahoo.com wrote:
>>>>> > > > N8WWM wrote:
>>>>> > > > > I'm dreaming of a cum drenched Christmas
>>>>> > > > > With every throbbing dick I suck
>>>>> > > > > Where the peckers glisten
>>>>> > > > > And keyclowns listen
>>>>> > > > > To hear me suck and blow
>>>>> > > > >
>>>>> > > > > I'm dreaming of a cum drenched Christmas
>>>>> > > > > With every anal hole I lick
>>>>> > > > > I loves horny nutsacks
>>>>> > > > > And spread wide asscracks
>>>>> > > > > Oh I loves to lick 'em all
>>>>> > > > >
>>>>> > > > >
>>>>> > > > > May you keyclowns have me eat meat
>>>>> > > > > And may all my dick suckings be sweet
>>>>> > > >
>>>>> > > > ROTFLMAO steveo see how doug has got you so frustrated you are
>>>>> > > > composing gay poetry about mens nutsacks etc. He got some
>>>>powerful
>>>>> > juju
>>>>> > > > on you dude, he owns you, think about it.
>>>>> > > >
>>>>> > > Your hero N8WWM composed that shit, leg humper.
>>>>> >
>>>>> > No thats a forge from you Steve. and its even more pathetic that
>>>>you
>>>>> > are googling gay poetry to forge doug with. He really does control
>>>>you

>>>>> >
>>>>> Check google you pathetic freak, Doug Adair composed that sick shit.
>>>>He
>>>>> writes crap like that all the time. Now pull your pathetic pinhead
>>>>out of
>>>>> his ass and go wash off. You love the fugly felon coward. Did he
>>>>finish up
>>>>> with his court ordered shrink yet, and did he feed his children yet?
>>>>>
>>>>> http://tinyurl.com/4drku
>>>>
>>>>
>>>>
>>>>so you admit googling for gay poetry, court records, anything to do
>>>>with doug. I rest my case, he has got you thinking about him 24/7 LOL
>>>
>>> Now thats funny, aren't you the same dimwit that admitted to reading
>>> gay newsgroups, just in case someone was forging WA3MOJ? LOL
>>
>>
>>
>>What I find funny is you reply to all of steveos post you are either him
>>or his flunky which is it? Wait dont answer that
>
>Ok, I admit it , I am Steve...
>
>You are such a paranoid moron Geo..

Well I am still not this ice guy or those other names> He mentions so
many hard to keep up!

# 3837. Re: 4:1 coaxial baluns

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-18 17:04:26 UTC
From: AaronJ <noemail@noemail.com>
Message-ID: <gnn8s0ti08e5vhff8ekf5g3o2b3lf2d6bi@4ax.com>
Source record: 85024

Bob Bob <bcnntp@optusnet.com.au> wrote:

>I have been often suspicious of toroidal baluns (loss etc). I might make
>one and plug it into the network analyzer at work to test.

Try it in the real world. That's the best test. I use a 4:1 (feeding a low lop) for a different reason. It makes my TS870 auto tuner 'happy' and allows autotuning from 40 thru 10. Coax feed works fine, as does direct (no balun) open wire feed using an external tuner, but that requires retuning on each band, and I like to band hop. But my bandswitching laziness is not the point. The point is that I've tried numerous balun in-out tests on the air and have yet to find anyone on the other end that could tell a difference. I know there is loss because the balun does get warm on some bands, but apparently it is not detectable on the other end - which is what counts in the final analysis. So don't take these guru's "don't do this/that with a bulun" too seriously. Try it. If it works, well....it works... ;)

# 3838. Re: Antennae of Yesteryear

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-18 17:11:25 UTC
From: flashback <ndcoder@srt.com>
Message-ID: <10s8p61j5bl1o60@corp.supernews.com>
Source record: 85025

For those interested, AM radios can still be top notch. I have a 98 Honda CRV. I bought this car because it suited where I lived. The AM radio was a shock. It pulls stations in just fine from hundreds of miles away in the daytime. I live in North central North Dakota. I can easily listen to French stations from Quebec. When you push the search button it simply goes to the next 10 khz spot and there will be a station there. My guess is that whoever designed this radio used the latest technology to make a very fine receiver. My Icom 718 with a 60 foot random wire does not work any better for reception.

The down side of this radio is that during the night, many stations are competing with each other on the same frequency.

"Spike" <gator2@webmail.co.za> wrote in message
news:32hn0uF3geipaU1@individual.net...
> For those youngsters among us who were not around,
> the antennas for automobile radios were not on top of
> automobiles until generally around 1935. Where were
> they you ask? They were located along and under the
> running boards. Generally with a pair of insulators and
> an insulated metal band. Trivia..I was there..W6BWY
>

## 3839. Re: Merry F'n Christmas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-18 17:15:49 UTC
From: Psychiatrist to keyclowns <keyklonzrnutjobs@yahoo.com>
Message-ID: <1103390149.808192.48510@z14g2000cwz.googlegroups.com>
Source record: 85026
Cross-posted to: rec.radio.cb, rec.radio.amateur.policy, rec.radio.amateur.antenna, alt.ham-radio.vhf-uhf

Wrong, asswipe. However, I do endorse it for the accuracy in describing you.

## 3840. Re: Merry F'n Christmas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-18 17:17:57 UTC
From: Psychiatrist to keyclowns <keyklonzrnutjobs@yahoo.com>
Message-ID: <1103390277.829924.276320@c13g2000cwb.googlegroups.com>
Source record: 85027
Cross-posted to: rec.radio.cb, rec.radio.amateur.policy, rec.radio.amateur.antenna, alt.ham-radio.vhf-uhf

Easy? Shit it took you 5 years to come up with a public document that's
been there all along. To top it off, you wouldnt even have it now if it
wasnt for the toothless Judas.

## 3841. Re: Merry F'n Christmas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-18 17:36:26 UTC
From: Happy Yawning Festival <yawning_since_1999@nospam.comm>
Message-ID: <uUZwd.9756$5Y3.8291@fe04.lga>
Source record: 85028
Cross-posted to: rec.radio.cb,rec.radio.amateur.policy,rec.radio.amateur.antenna,alt.ham-radio.vhf-uhf

"Psychiatrist to keyclowns" <keyklonzrnutjobs@yahoo.com> wrote in
news:1103390149.808192.48510@z14g2000cwz.googlegroups.com:

> Wrong, asswipe. However, I do endorse it for the accuracy in
> describing you.
>

None of your troll spewage, has any merit, cowardly nitwit..

# 3842. Re: Merry F'n Christmas N8WWM

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-18 17:44:52 UTC
From: Steveo <moparholic@hotmail-nospam.com>
Message-ID: <20041218124452.068$2b_-_@newsreader.com>
Source record: 85029
Cross-posted to: alt.dogie.is.an.idiot,rec.radio.cb,rec.radio.amateur.policy,rec.radio.amateur.antenna,alt.ham-radio.vhf-uhf

One of Doug's felonies.

http://tinyurl.com/4drku

N8WWM Doug Adair"Psychiatrist to keyclowns" <keyklonzrnutjobs@yahoo.com>
wrote:
> Easy? Shit it took you 5 years to come up with a public document that's
> been there all along.
>
Yep, easy. All I had to do was enter Doug Adair in public records. I notice
you don't deny you're a felon.
>
> To top it off, you wouldnt even have it now if it
> wasnt for the toothless Judas.
>
The only help I had was in finding out about your felon girlfriend.

KC8QJP

Kathleen R. Lee, CPA 4701.16(A)(5)-Convicted of aiding & assisting in
filing of false tax returns. CPA certificate revoked. 2001 Apr 24

Btw, who is Zoltan and why is he emailing me about YOU?!?

# 3843. Re: Slot Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-18 18:22:26 UTC
From: Bart Rowlett <bart@wb6hqk.ampr.org>
Message-ID: <41C47562.8050900@wb6hqk.ampr.org>
Source record: 85030

Matt wrote:
> Can I make a slot antenna out of round pipe rather then rectangular?

I assume you are referring to a circular waveguide with slot radiators cut into the surface. The usual arrangement is to use a rectangular waveguide with dimensions chosen so that only one possible propagation mode exists for the wavelength in use. This makes it fairly simple to determine suitable locations and dimensions of the radiating slots for the desired current distribution.

The problem with circular waveguide is that it does not constrain the polarization to any particular orientation. Even if the wave is launched in a known orientation, the presence of the slots may very well induce a 'twist' in the propagating wave which will affect the excitation of the slots in a way which may be extremely difficult to predict, or even measure.

One remedy is to insert features inside the circular waveguide which constrain the propagating wave to the desired polarization direction. Specific methods can be found in the microwave literature but I think you will find fabrication of rectangular waveguide by far the easiest solution if you're only going to construct a few units.

bart
wb6hqk

>
> I am having a hard time finding inexpensive rectangular tubing for working
> in 33cm band. Figure I need 2" x 8" and its not cheap. I can get 7" pipe
> much cheaper.
>
> Matt
>
>

# 3844. Re: 4:1 coaxial baluns

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-18 19:16:46 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <7j%wd.21606$rO2.9283@bignews1.bellsouth.net>
Source record: 85031

"AaronJ" <noemail@noemail.com> wrote in message
news:gnn8s0ti08e5vhff8ekf5g3o2b3lf2d6bi@4ax.com...
> Bob Bob <bcnntp@optusnet.com.au> wrote:
>
> >I have been often suspicious of toroidal baluns (loss etc). I might make
> >one and plug it into the network analyzer at work to test.
>
> Try it in the real world. That's the best test. I use a 4:1 (feeding a low
lop)
> for a different reason. It makes my TS870 auto tuner 'happy' and allows
> autotuning from 40 thru 10. Coax feed works fine, as does direct (no
balun) open
> wire feed using an external tuner, but that requires retuning on each
band, and
> I like to band hop. But my bandswitching laziness is not the point. The
point is
> that I've tried numerous balun in-out tests on the air and have yet to
find
> anyone on the other end that could tell a difference. I know there is loss
> because the balun does get warm on some bands, but apparently it is not
> detectable on the other end - which is what counts in the final analysis.
So
> don't take these guru's "don't do this/that with a bulun" too seriously.
Try it.
> If it works, well....it works... ;)

There you go - if you let everyone else give you the answers, you'll be
missing one of the fun things of the hobby - experimenting. I played around
with winding baluns a few years ago so I could use 300-ohm line to feed an
antenna 200 feet away. It worked. I put one balun on each end of the run.

---
Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.818 / Virus Database: 556 - Release Date: 12/17/2004

# 3845. Re: Antennae of Yesteryear

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-18 20:28:01 UTC
From: Dave VanHorn <dvanhorn@dvanhorn.org>
Message-ID: <Lf2dnbmAEMNRD1ncRVn-hw@comcast.com>
Source record: 85032

Hmm, I wonder if I can fit that radio in my '98 Expedition??

# 3846. Re: Slot Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-18 21:26:31 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <bk69s0df69ejpc9gh3gh2t6889ohmqsqi7@4ax.com>
Source record: 85033

On Sat, 18 Dec 2004 09:52:07 +0100, Darko <9a3li_MAKNI_@hamradio.hr>
wrote:
>Any URL with examples, plans, calcilations ?
>Any book ?
>
>All I find are rectangular WG slot.
>Only "Alford Slot" but that isnt what we talk about.

Hi OM,

It isn't? Why? This one is available at:
http://www.eta.chalmers.se/~pgp/alford_slot/alford_eng.html
and seems a perfectly useful introduction to the topic.

http://www.qsl.net/kd2bd/slot.html
discusses other factors, such as the slot length that affects the
elevation gain profile.

http://members.ij.net/packrats/Slot_Antenna/Slot_ant.pdf
is more the classic discussion using standard waveguide materials with
an array of slots. This in turn offers a link:
http://www.ham-radio.com/sbms/sd/slotant.htm
that leads to a BASIC program for calculating the dimensions for these
standard waveguides.

http://hjem.get2net.dk/ole_nykjaer/oz2oe/antenner/10ghz_slotant_sma.jpg
contains another slot array, but this page illustrates the probe
excitation connector construction (one of those things I made a point
of, however, loop coupling is more flexible).

http://www.caron-inc.com/search/103/related.php
contains a lot of individual links that I won't go into.

there were 17,700 hits for the term "slot antenna," and these few were
on page one. I will leave it to you two correspondents to research
further and ask questions (I will anticipate the first: "Scale those
you find interesting to your own frequency").

To respond to Bart's point about modalities (the Alford Slot Antenna
would seem to be immune, whereas these traditional arrays would be
prone to his discussion): there are simple techniques to force modes
through the usages of thin sheet metal diaphragms and masks. Working
with the plumbing in these frequencies is both hands-on and conceptual
visualization friendly - sort of like Fields in a bottle.

73's
Richard Clark, KB7QHC

# 3847. Re: FS 8 pill Linear

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-18 22:08:11 UTC
From: Paw-Paw <pawpaw@granpa.com>
Message-ID: <zP1xd.21625$rO2.16118@bignews1.bellsouth.net>
Source record: 85034
Cross-posted to: rec.radio.cb,rec.radio.amateur.policy,rec.radio.amateur.antenna,alt.ham-radio.vhf-uhf,rec.radio.amateur.misc

> You fucking pussy! My 32 pill will make you sound like a mud duck!
>

My 51 Pill makes your 32 Pill look like a Candle in a Hurricane-

# 3848. Re: How to know if I'm being bugged

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-18 22:57:13 UTC
From: Ray Gaschk <rgaschk@astound.net>
Message-ID: <cq2cj6$d9l$1@news.astound.net>
Source record: 85035

Jim,

Try
www.zapchecker.com

He makes some neat receivers for this purpose.

ray
"Yakovitiz" <invalid@invalid.com> wrote in message
news:32hl95F3mav1tU1@individual.net...
> Yes. broadband detector, google spy catalog stuff
> Small box with antenna, and a led bar on it.
>
>
> "Jim" <kc7jfv@hotmail.com> wrote in message
> news:781c67d2.0412171836.44f0e2ba@posting.google.com...
> > Okay I don't have fancy spectrum analyzer. As a matter of fact I don't
> even have
> > anything besides HF radio. The other day I got a chance to look into
5.7
> GHz
> > wireless antenna and I couldn't believe how compact it was. If that
> device was
> > installed on my ceiling, I doubt I would have seen it. It was the same
> size as
> > 2 cigarette packs. And it could transmit signals well over 3 miles.
Wish
> there
> > was a easier way to detect RF signals. Any help?
>
>

# 3849. Re: Wireless Innovation Contest - Get your innovation noticed!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-18 23:15:42 UTC
From: fractenna@aol.com
Message-ID: <20041218181542.07662.00002135@mb-m01.aol.com>
Source record: 85036

>How about a wireless Solar-powered flashlight
>Or a wireless flashlight-powered solar battery
>

How about a 'flash-dark'?

;-)

Ooops..DeForest was there first:-)

73,
Chip N1IR

# 3850. Re: Slot Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-19 00:03:10 UTC
From: Darko <9a3li_MAKNI_@hamradio.hr>
Message-ID: <cq2gg3$sj2$1@bagan.srce.hr>
Source record: 85037

Richard Clark wrote:
> On Sat, 18 Dec 2004 09:52:07 +0100, Darko <9a3li_MAKNI_@hamradio.hr>
> wrote:
>
>>Any URL with examples, plans, calcilations ?
>>Any book ?
>>
>>All I find are rectangular WG slot.
>>Only "Alford Slot" but that isnt what we talk about.
>
>
> Hi OM,
>
> It isn't? Why? This one is available at:
> http://www.eta.chalmers.se/~pgp/alford_slot/alford_eng.html
> and seems a perfectly useful introduction to the topic.

Hi Richard !

Yes, this is Alford, kind of slot antenna.
But we searching for "round pipe slot WG antenna" not using usual Wave
Guides.
Just for info, not for build, rectangular, standard WG slot antenna is
much easy to make.

73 !

# 3851. Re: FS 8 pill Linear

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-19 00:10:58 UTC
From: WA3MOJ <WA3MOJ@home.com>
Message-ID: <cq2gui0ivd@drn.newsguy.com>
Source record: 85040
Cross-posted to: rec.radio.cb,rec.radio.amateur.policy,rec.radio.amateur.antenna,alt.ham-radio.vhf-uhf,rec.radio.amateur.misc

In article <zP1xd.21625$rO2.16118@bignews1.bellsouth.net>, Paw-Paw says...
>
>> You fucking pussy! My 32 pill will make you sound like a mud duck!
>>
>
>My 51 Pill makes your 32 Pill look like a Candle in a Hurricane-
>
>

All I have to say at this point is if you dont like Dave Made Fine but if it is because you have to wait for it your childish.

This is a ture story I know a guy that wanted a dave made 32 pill but got sick of waiting and bought a no name 32.
Im Waiting now for a Dave Made 32 pill I Admit I would like to have it now but i know When I get it I am going to stomp all over the No-Name, not just because they are better boxes but as im waiting for my 32 im setting up my car. Making sure everything is well grounded, tuned, and what not. The guy with the no name 32 is running it off of one alternator. I took the time and saved up and bought three big leece-neviles AND YOU KNOW WHAT IT TOOK 2 WEEKS FOR THEM TO BE SHIPPED TO ME. But it beats buying them from some one that has them in stock and charges an extra $100.00

Prozac625 is off the key.

--
Young Men are delicious,
Healthy, virile and strong,
With smooth skin, a firm fleshy arse,
And hair growing where it belongs.

# 3852. Re: Slot Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-19 00:21:15 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <ofh9s0hd3dqkgnruouj7cnemk44k247aha@4ax.com>
Source record: 85038

On Sun, 19 Dec 2004 01:03:10 +0100, Darko <9a3li_MAKNI_@hamradio.hr>
wrote:
>But we searching for "round pipe slot WG antenna" not using usual Wave
>Guides.

Hi OM,

This is a contradiction.

The Alford type is not the usual waveguide. Round waveguides are more
frequently used for rotating connections (RADAR), and only for short
sections. The Alford type is a classic "Slot Antenna" and, in fact,
is not a waveguide at all.

I did provide square waveguide slot antennas and you did not respond
to them.

If you reject both round and square examples, then there is not much
left to talk about.

73's
Richard Clark, KB7QHC

## 3853. [6M] Dipole vs Jpole

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-19 00:24:28 UTC
From: Ken Bessler <kg0wx@NOSPAMyahoo.com>
Message-ID: <0T3xd.1088$Jb7.1075@okepread01>
Source record: 85039

Tomorrow I'm probably going to buy a Yaesu FT690
6m all mode rig. I'm thinking about a temporary antenna.
Eventually I'll have a pair of stacked loops, probably
from PAR Electronics.

If I've got this right, wouldn't a Jpole have the same gain
as an inverted V? 2.14dbi gain?

Ken KG0WX

# 3854. Antenna help needed - Thank you

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-19 00:36:44 UTC
From: W4JLE <W4jle@w4jle.com>
Message-ID: <C24xd.196$VQ2.158@fe39.usenetserver.com>
Source record: 85041

Fifty years ago, with a new general ticket in hand, I strung the longest piece of wire I could find out the window and around the yard. My hands trembled as I switched on the Lysco 600 and HQ 129X. I had already memorized the pertinent sections of the eight page manual and fired up the rig on 3885. Disregarding the RF burns to the lip, I called CQ and was rewarded with a response from W8DXL in Willowick, Ohio. John and I talked until the blisters on my lip became too painful to continue. Wow! I was a ham.

I made many contacts after that, moving the antenna around to diminish the burns. Far away places like New Zealand, Australia, and European countries were scrawled into the FCC mandated logbook.

A number of years past before I had my very own SWR meter. With the meter in hand I soon realized how bad my antenna was. The DX-100 had been lying to me the whole time. It claimed it was happy loading the poor excuse for an antenna it had been presented. My logbook mocked me with how lucky I was to be approaching one hundred countries considering my profound ignorance.

We soon had an antenna that was nearly one to one on my favorite operating frequency. The upside is my lips soon healed, but I spent so much time with the antenna I missed all the band openings. My neighbor down the road said it sounded good. Shortly, there after, I was informed that SWR didn't mean a thing. "A dummy load is always one to one" retorted the local guru.

I wandered in darkness until Al Gore invented the internet. Now I had access to all the super gurus that I had only read about in QST, I jumped on the Antenna conference and asked the following "How can I make my antenna better". In short order answers started flowing in! How ever with each answer, another guru jumped in with an opinion that was at variance with the first one. My match apparently was not conjunctive, the current was either the same or different through my loading coil, it was at the wrong height, I needed to get an antenna analyzer, my feedline was the wrong length, I didn' t have the proper number of fractal bends etc. etc.

To shorten a long story, I haven't made a contact in three years. EZNEC confirms my antenna would never work under the best of conditions being -6dBLB (referenced to a light bulb).

And then I discovered CB radio! The physics are entirely different on eleven meters. I can change my SWR's by cutting my coax, co-phase my antennas and magical things beyond description. I have made over thirty "skip contacts" on my first day bare foot. Today I learned about a device called a "LinYAR" that will let me talk even further. Seems that all you need is a bunch of pills and everyone hears you. Try that on Ham radio!

Just wanted to say 3's and 8's to all that have attempted to help me make my antenna better, I asked the same question on the CB forum and am now running co-phased nine element moonrakers up 150 feet and everyone says I am "tree top tall"!

Merry Christmas and Happy New Year from W4JLE

# 3855. Re: [6M] Dipole vs Jpole

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-19 00:47:06 UTC
From: Ralph Mowery <rmowery28146@earthlink.net>
Message-ID: <ec4xd.3719$yK.2391@newsread3.news.atl.earthlink.net>
Source record: 85042

"Ken Bessler" <kg0wx@NOSPAMyahoo.com> wrote in message
news:0T3xd.1088$Jb7.1075@okepread01...
> Tomorrow I'm probably going to buy a Yaesu FT690
> 6m all mode rig. I'm thinking about a temporary antenna.
> Eventually I'll have a pair of stacked loops, probably
> from PAR Electronics.
>
> If I've got this right, wouldn't a Jpole have the same gain
> as an inverted V? 2.14dbi gain?
>
> Ken KG0WX

The Jpole is vertical and the inverted V is horizontal in the normal mounted position. There is about a 20 db differance between the two. If you layed the jpole on its side then it would have about the same gain as the inverted V. For ssb you want horizontal and for FM you want vertical.

# 3856. need construction articles for 2M/440 quads

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-19 01:30:39 UTC
From: Kirk Mohror <kmohror@comcast.net>
Message-ID: <EICdnbWogd1dRFncRVn-rA@comcast.com>
Source record: 85043

I am looking for construction articles on how to build a 6 element 2 meter quad antenna and a 440mhz 8 element quad antenna.

Thanks,
Kirk
K7EKM

# 3857. Re: need construction articles for 2M/440 quads

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-19 01:57:01 UTC
From: W4JLE <W4jle@w4jle.com>
Message-ID: <%d5xd.290$0O.143@fe61.usenetserver.com>
Source record: 85045

for a 2 meter quad here are some dimensions at 146 MHz

element Total length one side distance up spreader
Reflector 84.658 21.165 14.996
Driven 82.603 20.165 14.602
Dir 1 80.137 20.034 14.166
Dir 2 77.733 19.433 13.741
Dir 3 75.401 18.85 13.329
Dir 4 73.139 18.285 12.929
Dir 5 70.945 17.736 12,541

Distance between elements
REF 1 to Driven 12.13
Driven to dir 1 10.51
dir1 to dir2 12.13
dir2 to dir3 13.75
dir3 to dir4 15.37
dir4 to dir5 20.22

All dimensions in inches.

"Kirk Mohror" <kmohror@comcast.net> wrote in message
news:EICdnbWogd1dRFncRVn-rA@comcast.com...
> I am looking for construction articles on how to build a 6 element 2 meter
> quad antenna and a 440mhz 8 element quad antenna.
>
> Thanks,
> Kirk
> K7EKM
>
>

# 3858. Re: Loop Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-19 02:01:25 UTC
From: "William H. O'Hara, III" <whoohara@yahoo.com>
Message-ID: <Xns95C3D5FCB862AX2A3DA5M1512AODKAMO@216.196.97.142>
Source record: 85044

Richard Clark <kb7qhc@comcast.net> wrote in
news:k5d4s014smle8gkrsae6lig2bsrbcevv14@4ax.com:

>>12# wire at 40 feet in the air with 90 feet to each
>>side for the basic square. I wanted to see it would
>>resonate on 80 down.
>
> Hi Bill,
>
> Even at a glance and simplistic conversion to metric would
> say you were expecting 120M of wire to resonate at 80M.
> Far too much wire.

I should actually double it. Tree configuration
is very tough. I do the have the option of potentially
doing a T shape or the box with 90 feet sides.

Not up yet.. Getting side tracked

Bill

# 3859. Re: Loop Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-19 02:12:54 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <1mo9s0tnk1fha1d3rv5aamj8cuvo4pds68@4ax.com>
Source record: 85046

On Sat, 18 Dec 2004 20:01:25 -0600, "William H. O'Hara, III"
<whoohara@yahoo.com> wrote:
>> Far too much wire.
>I should actually double it.
??????????????

# 3860. Re: need construction articles for 2M/440 quads

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-19 02:15:06 UTC
From: Ralph Mowery <rmowery28146@earthlink.net>
Message-ID: <Ku5xd.3770$yK.346@newsread3.news.atl.earthlink.net>
Source record: 85047

"Kirk Mohror" <kmohror@comcast.net> wrote in message
news:EICdnbWogd1dRFncRVn-rA@comcast.com...
> I am looking for construction articles on how to build a 6 element 2 meter
> quad antenna and a 440mhz 8 element quad antenna.
>
>

You may want to check the quagi out . The quads are usually more trouble to
build and do not give any advantage once you go over 4 or 5 elements or so
for vhf.

http://commfaculty.fullerton.edu/woverbeck/quagi.htm

I built a 220 mhz version years ago and it seemed to work fine. Lots beter
than the CC 11 element yagi I compaired it with at the same height.

# 3861. Re: [6M] Dipole vs Jpole

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-19 02:31:55 UTC
From: Ken Bessler <kg0wx@NOSPAMyahoo.com>
Message-ID: <vK5xd.1404$Jb7.776@okepread01>
Source record: 85048

"Ralph Mowery" <rmowery28146@earthlink.net> wrote in message
news:ec4xd.3719$yK.2391@newsread3.news.atl.earthlink.net...
>
> "Ken Bessler" <kg0wx@NOSPAMyahoo.com> wrote in message
> news:0T3xd.1088$Jb7.1075@okepread01...
>> Tomorrow I'm probably going to buy a Yaesu FT690
>> 6m all mode rig. I'm thinking about a temporary antenna.
>> Eventually I'll have a pair of stacked loops, probably
>> from PAR Electronics.
>>
>> If I've got this right, wouldn't a Jpole have the same gain
>> as an inverted V? 2.14dbi gain?
>>
>> Ken KG0WX
>
> The Jpole is vertical and the inverted V is horizontal in the normal
> mounted
> position. There is about a 20 db differance between the two. If you
> layed
> the jpole on its side then it would have about the same gain as the
> inverted
> V. For ssb you want horizontal and for FM you want vertical.
>
>

Sorry I should have specified that I understand the polarization differences between the Jpole and the Dipole. I was intending on running the Jpole as an end fed halfwave inverted V.

I guess I answered my own question, huh?

Ken KG0WX

# 3862. Re: Intriguing antenna...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-19 03:16:17 UTC
From: "J. Mc Laughlin" <jcm@power-net.net>
Message-ID: <10s9sjgc7s1pqae@corp.supernews.com>
Source record: 85049

Looks to me as if the mast is, or contains, coax. The antenna is
constructed at the top of the pole and looks like a discone. Might be for
the 70 MHz region.
73 Mac

--
J. Mc Laughlin; Michigan U.S.A.
Home: JCM@Power-Net.Net
"D. Martin" <DEMEM@webtv.net> wrote in message
news:27525-41C105C7-171@storefull-3252.bay.webtv.net...
> http://www.sportsmansguide.com/cb/cb.asp?a=170520
>
>
>
>

## 3863. Re: Intriguing antenna...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-19 03:37:28 UTC
From: DEMEM@webtv.net
Message-ID: <23829-41C4F778-673@storefull-3254.bay.webtv.net>
Source record: 85050

I appreciate your time, gentlemen, and your insight. Darren

http://community-2.webtv.net/DEMEM/LastDaysEndTimes/page2.html

# 3864. My radio always fights with my toaster !!!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-19 04:05:59 UTC
From: zendo_joystick_ankh_hero@yahoo.com.br
Message-ID: <9f63c9ae.0412182005.523bf8a1@posting.google.com>
Source record: 85051
Cross-posted to: rec.radio.amateur.antenna,scot.tld

The two can't stand each other!

What can I do?

# 3865. Re: need construction articles for 2M/440 quads

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-19 04:21:55 UTC
From: Crazy George <muNnscOh@attSglPobaAl.nMet>
Message-ID: <41c504d0_3@news1.prserv.net>
Source record: 85052

That was probably back when CC designed all their antennas for through the boom elements and then built them with the
elements on top, or vice versa, making them wrong by about 10%. Typically had more "gain" off the back than off the
front. Nearly put CC out of business.
--
Crazy George
Remove N O and S P A M imbedded in return address
"Ralph Mowery" <rmowery28146@earthlink.net> wrote in message
news:Ku5xd.3770$yK.346@newsread3.news.atl.earthlink.net...
>
> "Kirk Mohror" <kmohror@comcast.net> wrote in message
> news:EICdnbWogd1dRFncRVn-rA@comcast.com...
> > I am looking for construction articles on how to build a 6 element 2 meter
> > quad antenna and a 440mhz 8 element quad antenna.
> >
> >
>
> You may want to check the quagi out . The quads are usually more trouble to
> build and do not give any advantage once you go over 4 or 5 elements or so
> for vhf.
>
> http://commfaculty.fullerton.edu/woverbeck/quagi.htm
>
> I built a 220 mhz version years ago and it seemed to work fine. Lots beter
> than the CC 11 element yagi I compaired it with at the same height.
>
>

## 3866. Re: Antennae of Yesteryear

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-19 04:22:07 UTC
From: DEMEM@webtv.net
Message-ID: <23830-41C501EF-182@storefull-3254.bay.webtv.net>
Source record: 85053

The radio in my '84 "fifth avenue" works great. If I get rid of this car, I'm keeping the radio, and the antenna. Darren

http://community-2.webtv.net/DEMEM/LastDaysEndTimes/page2.html

## 3867. Free iPod

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-19 05:34:15 UTC
From: pvspencer22@gmail.com
Message-ID: <1103434455.826182.182360@f14g2000cwb.googlegroups.com>
Source record: 85054

Sign Up here: http://www.freeiPods.com/?r=13089495 to receive a free iPod, use this link and then complete an offer (Some of Them Are 100% Free, Sign Up For a Trial and cancel after a few days) and refer friends to the offer! TechTV review proves its legit http://www.g4techtv.com/videos/index.html?video_key=8872

# 3868. Re: Free iPod

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-19 05:48:17 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <k95as0l27co2o2kf6ip933l7pvr0c8vv0b@4ax.com>
Source record: 85055

On 18 Dec 2004 21:34:15 -0800, pvspencer22@gmail.com wrote:
>Sign Up here:
Free Tibet

# 3869. Re: Merry F'n Christmas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-19 05:58:48 UTC
From: Smooth G <SmoothG@infoworks.com>
Message-ID: <c26as01a5avje79boj447ikkaq0o9tcpjq@4ax.com>
Source record: 85056
Cross-posted to: rec.radio.cb,rec.radio.amateur.policy,rec.radio.amateur.antenna,alt.ham-radio.vhf-uhf

On Sat, 18 Dec 2004 11:30:50 -0600, itoldyouiamnotiamnotgeorge
<itoldyouiamnotiamnotgeorge@yahoo.comSpam> wrote:

>Smooth G <SmoothG@infoworks.com> wrote in
>news:ogo8s058n6oit2e0095inrrng8ecmu5906@4ax.com:
>
>> On Sat, 18 Dec 2004 16:40:49 GMT, Lancer <lancer@rock..com> wrote:
>>
>>>On Sat, 18 Dec 2004 10:22:13 -0600, itoldyouiamnotiamnotgeorge
>>><itoldyouiamnotiamnotgeorge@yahoo.comSpam> wrote:
>>>
>>>>Lancer <lancer@ock..com> wrote in
>>>>news:uth8s0ljv5tnvo2psm7n5u3448esnj21ge@news.easynews.com:
>>>>
>>>>> On 17 Dec 2004 15:12:12 -0800, iamnotgeorge2004@yahoo.com wrote:
>>>>>
>>>>>>Steveo wrote:
>>>>>>> iamnotgeorge2004@yahoo.com wrote:
>>>>>>> > Steveo wrote:
>>>>>>> > > iamnotgeorge2004@yahoo.com wrote:
>>>>>>> > > > N8WWM wrote:
>>>>>>> > > > > I'm dreaming of a cum drenched Christmas
>>>>>>> > > > > With every throbbing dick I suck
>>>>>>> > > > > Where the peckers glisten
>>>>>>> > > > > And keyclowns listen
>>>>>>> > > > > To hear me suck and blow
>>>>>>> > > > >
>>>>>>> > > > > I'm dreaming of a cum drenched Christmas
>>>>>>> > > > > With every anal hole I lick
>>>>>>> > > > > I loves horny nutsacks
>>>>>>> > > > > And spread wide asscracks
>>>>>>> > > > > Oh I loves to lick 'em all
>>>>>>> > > > >
>>>>>>> > > > >
>>>>>>> > > > > May you keyclowns have me eat meat
>>>>>>> > > > > And may all my dick suckings be sweet
>>>>>>> > > >
>>>>>>> > > > ROTFLMAO steveo see how doug has got you so frustrated you
>>>>>>> > > > are composing gay poetry about mens nutsacks etc. He got
>>>>>>> > > > some
>>>>>>>powerful
>>>>>>> > juju
>>>>>>> > > > on you dude, he owns you, think about it.

>>>>>>> > > >
>>>>>>> > > Your hero N8WWM composed that shit, leg humper.
>>>>>>> >
>>>>>>> > No thats a forge from you Steve. and its even more pathetic
>>>>>>> > that
>>>>>>you
>>>>>>> > are googling gay poetry to forge doug with. He really does
>>>>>>> > control
>>>>>>you
>>>>>>> >
>>>>>>> Check google you pathetic freak, Doug Adair composed that sick
>>>>>>> shit.
>>>>>>He
>>>>>>> writes crap like that all the time. Now pull your pathetic
>>>>>>> pinhead
>>>>>>out of
>>>>>>> his ass and go wash off. You love the fugly felon coward. Did he
>>>>>>finish up
>>>>>>> with his court ordered shrink yet, and did he feed his children
>>>>>>> yet?
>>>>>>>
>>>>>>> http://tinyurl.com/4drku
>>>>>>
>>>>>>
>>>>>>
>>>>>>so you admit googling for gay poetry, court records, anything to do
>>>>>>with doug. I rest my case, he has got you thinking about him 24/7
>>>>>>LOL
>>>>>
>>>>> Now thats funny, aren't you the same dimwit that admitted to
>>>>> reading gay newsgroups, just in case someone was forging WA3MOJ?
>>>>> LOL
>>>>
>>>>
>>>>
>>>>What I find funny is you reply to all of steveos post you are either
>>>>him or his flunky which is it? Wait dont answer that
>>>
>>>Ok, I admit it , I am Steve...
>>>
>>>You are such a paranoid moron Geo..
>>
>> Well I am still not this ice guy or those other names> He mentions so
>> many hard to keep up!
>
>
>No your not are ytou then why do you slobber all over telling everyone
>you are not ..LOL

Not everyone just you because you are the only one accusing me of that or have you not noticed that? Look I just want to acknowledged for what I do not for someone else. I mean it is kinda funny but you never stop you keep saying the same thing.

# 3870. Re: FS 8 pill Linear

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-19 05:59:45 UTC
From: Smooth G <SmoothG@infoworks.com>
Message-ID: <r96as0d31gm4jo692dqegr1i55cv8cop65@4ax.com>
Source record: 85057
Cross-posted to: rec.radio.cb,rec.radio.amateur.policy,rec.radio.amateur.antenna,alt.ham-radio.vhf-uhf,rec.radio.amateur.misc

On 18 Dec 2004 16:10:58 -0800, WA3MOJ <WA3MOJ@home.com > wrote:

>In article <zP1xd.21625$rO2.16118@bignews1.bellsouth.net>, Paw-Paw says...
>>
>>> You fucking pussy! My 32 pill will make you sound like a mud duck!
>>>
>>
>>My 51 Pill makes your 32 Pill look like a Candle in a Hurricane-
>>
>>
>
>All I have to say at this point is if you dont like Dave Made Fine but if it
>is because you have to wait for it your childish.
>
>This is a ture story I know a guy that wanted a dave made 32 pill but got
>sick of waiting and bought a no name 32.
>Im Waiting now for a Dave Made 32 pill I Admit I would like to have it now
>but i know When I get it I am going to stomp all over the No-Name, not just
>because they are better boxes but as im waiting for my 32 im setting up my
>car. Making sure everything is well grounded, tuned, and what not. The guy
>with the no name 32 is running it off of one alternator. I took the time and
>saved up and bought three big leece-neviles AND YOU KNOW WHAT IT TOOK 2
>WEEKS FOR THEM TO BE SHIPPED TO ME. But it beats buying them from some one
>that has them in stock and charges an extra $100.00
>
>
>Prozac625 is off the key.

Thar she blows!

# 3871. Re: Antenna humor

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-19 07:47:39 UTC
From: "T.M. Sommers" <tms@nj.net>
Message-ID: <vmaxd.649$uN2.153247@monger.newsread.com>
Source record: 85058

Radio Man wrote:
> "K7ITM" <k7itm@aol.com> wrote in message
> news:1103222763.823990.192600@f14g2000cwb.googlegroups.com...
>
>>Two antennas met on a roof, fell in love and got married.
>>The ceremony wasn't much, but the reception was excellent.
>
> Too much horizontal polarization

Or coupled harmonic osculation.

# 3872. Re: [6M] Dipole vs Jpole

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-19 13:44:04 UTC
From: raiar@bbs.galilei.com.nospam
Message-ID: <41c584ee.279253953@news.galilei.com>
Source record: 85059

Hi Ken

Take a look at my Mirror-Image J.
If mounted on a PVC mast off the side of your tower or gable, it can be turned horizontal for ssb and flipped back vertical for FM, using a simple solenoid and spring.
I suggest using refrigeration grade copper tubing for the added strength if you mechanize the rotation.

http://archimedes.galilei.com/raiar/

TTUL
Gary

# 3873. Outbacker ML-130 160m antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-19 16:01:44 UTC
From: Jeff L <jlco01@excite.com>
Message-ID: <od9bs0pbspeuf4f3635rugbavrudoerhbc@4ax.com>
Source record: 85060

Howdy,
I just aquired an Outbacker ML-130 160m antenna. Anybody have any
experience with this antenna? It apparently covers 160m to 17m. It's
about 6' tall - very short stinger.

Thanks,

Jeff

# 3874. Re: Outbacker ML-130 160m antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-19 16:37:52 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41c5ae80$1_2@127.0.0.1>
Source record: 85006

Jeff L wrote:
> I just aquired an Outbacker ML-130 160m antenna. Anybody have any
> experience with this antenna? It apparently covers 160m to 17m. It's
> about 6' tall - very short stinger.

Nothing to write home about. In the 75m shootouts, it was about
1 dB down from a Hustler. Probably pretty good on 20m & 17m.
--
73, Cecil http://www.qsl.net/w5dxp

----------== Posted via Newsfeed.Com - Uncensored Usenet News ==----------
http://www.newsfeed.com The #1 Newsgroup Service in the World!
-----= Over 100,000 Newsgroups - Unlimited Fast Downloads - 19 Servers =-----

# 3875. Re: Merry F'n Christmas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-19 17:50:49 UTC
From: Happy Yawning Festival <yawning_since_1999@nospam.comm>
Message-ID: <Zbjxd.10651$NC1.3994@fe04.lga>
Source record: 85061
Cross-posted to: rec.radio.cb,rec.radio.amateur.policy,rec.radio.amateur.antenna,alt.ham-radio.vhf-uhf

itoldyouiamnotiamnotgeorge <itoldyouiamnotiamnotgeorge@yahoo.comSpam>
wrote in news:Xns95C470C35A87C1234567890@216.196.97.136:

> Smooth G <SmoothG@infoworks.com> wrote in
> news:c26as01a5avje79boj447ikkaq0o9tcpjq@4ax.com:
>
>> Not everyone just you because you are the only one accusing me of
>> that or have you not noticed that? Look I just want to acknowledged
>> for what I do not for someone else. I mean it is kinda funny but you
>> never stop you keep saying the same thing.
>
> truth hurts vanderfool doesnt it. bagged and tagged get over it, why
> does it bother you so much, because you are him. get lost,
>
> ICECOLDNYC@aol.com = CB Keyclown
>

HAH! The most imfamous AKC troll ever, in rrcb, telling a cb'er
here to get lost... How freekin' ironic is that..!?!?

Bi-Curious georgie-boi = dregs of the amateur radio community.

# 3876. Re: [6M] Dipole vs Jpole

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-19 18:10:52 UTC
From: John Steffes <jsteffes@cfl.rr.com>
Message-ID: <Mujxd.160966$Oc.136247@tornado.tampabay.rr.com>
Source record: 85062

The Jpole is theoretically a 1/2 wavelentgh antenna with a 1/4
wavelength impedence matching endpiece. There are a jigillion designs
for 6 meter homebrew Jpoles on the internet making your choice of
temporary antenna a very good one.

Although you would think that the Jpole has the same gain as a 1/2
wavelength dipole (2.14 dBi), the one's we've built have performed head
and sholders above a dipole equal.

Good Luck!

John Steffes

Ken Bessler wrote:
> Tomorrow I'm probably going to buy a Yaesu FT690
> 6m all mode rig. I'm thinking about a temporary antenna.
> Eventually I'll have a pair of stacked loops, probably
> from PAR Electronics.
>
> If I've got this right, wouldn't a Jpole have the same gain
> as an inverted V? 2.14dbi gain?
>
> Ken KG0WX
>
>
>
>

# 3877. Re: Free iPod

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-19 19:03:56 UTC
From: Mike Coslo <mcoslo@adelphia.net>
Message-ID: <7cydnQHqOv8HTVjcRVn-jQ@adelphia.com>
Source record: 85063

Richard Clark wrote:

> On 18 Dec 2004 21:34:15 -0800, pvspencer22@gmail.com wrote:
>
>>Sign Up here:
>
> Free Tibet

Free Willy

# 3878. Re: Antenna help needed - Thank you

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-19 19:36:49 UTC
From: TimPerry <timperry@noaspamadelphia.net>
Message-ID: <I7KdnRj9v9rJRVjcRVn-jA@adelphia.com>
Source record: 85064

"W4JLE" <W4jle@w4jle.com> wrote in message
news:C24xd.196$VQ2.158@fe39.usenetserver.com...
> Fifty years ago, with a new general ticket in hand, I strung the longest
> piece of wire I could find out the window and around the yard. My hands
> trembled as I switched on the Lysco 600 and HQ 129X. I had already
memorized
> the pertinent sections of the eight page manual and fired up the rig on
> 3885. Disregarding the RF burns to the lip, I called CQ and was rewarded
> with a response from W8DXL in Willowick, Ohio. John and I talked until
the
> blisters on my lip became too painful to continue. Wow! I was a ham.
>
>
>
> I made many contacts after that, moving the antenna around to diminish the
> burns. Far away places like New Zealand, Australia, and European countries
> were scrawled into the FCC mandated logbook.
>
>
>
> A number of years past before I had my very own SWR meter. With the meter
in
> hand I soon realized how bad my antenna was. The DX-100 had been lying to
me
> the whole time. It claimed it was happy loading the poor excuse for an
> antenna it had been presented. My logbook mocked me with how lucky I was
to
> be approaching one hundred countries considering my profound ignorance.
>
>
>
> We soon had an antenna that was nearly one to one on my favorite operating
> frequency. The upside is my lips soon healed, but I spent so much time
with
> the antenna I missed all the band openings. My neighbor down the road said
> it sounded good. Shortly, there after, I was informed that SWR didn't mean
a
> thing. "A dummy load is always one to one" retorted the local guru.
>
>
>
> I wandered in darkness until Al Gore invented the internet. Now I had
access
> to all the super gurus that I had only read about in QST, I jumped on the

> Antenna conference and asked the following "How can I make my antenna
> better". In short order answers started flowing in! How ever with each
> answer, another guru jumped in with an opinion that was at variance with
the
> first one. My match apparently was not conjunctive, the current was either
> the same or different through my loading coil, it was at the wrong height,
I
> needed to get an antenna analyzer, my feedline was the wrong length, I
didn'
> t have the proper number of fractal bends etc. etc.
>
>
>
> To shorten a long story, I haven't made a contact in three years. EZNEC
> confirms my antenna would never work under the best of conditions
> being -6dBLB (referenced to a light bulb).
>
>
>
> And then I discovered CB radio! The physics are entirely different on
> eleven meters. I can change my SWR's by cutting my coax, co-phase my
> antennas and magical things beyond description. I have made over thirty
> "skip contacts" on my first day bare foot. Today I learned about a device
> called a "LinYAR" that will let me talk even further. Seems that all you
> need is a bunch of pills and everyone hears you. Try that on Ham radio!
>
>
>
> Just wanted to say 3's and 8's to all that have attempted to help me make
my
> antenna better, I asked the same question on the CB forum and am now
running
> co-phased nine element moonrakers up 150 feet and everyone says I am "tree
> top tall"!
>
>
>
> Merry Christmas and Happy New Year from W4JLE
>
>
>

may all your waves be short and your contacts be long

may your antennas stay up and never go wrong

may you finals grow bright or transistors stay cool

as you chat some each night, and all through the yule

merry xmas to you and all of the readers

may your radios bring fun, even on 11 meters

-KA8DSO

# 3879. Re: Free iPod

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-19 19:43:36 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <10sbmfcn2esih45@corp.supernews.com>
Source record: 85065

```
Mike Coslo wrote:
> Richard Clark wrote:
>
>> On 18 Dec 2004 21:34:15 -0800, pvspencer22@gmail.com wrote:
>>
>>> Sign Up here:
>>
>>
>> Free Tibet
>
>
> Free Willy
>
Free Beer!!!
```

# 3880. Re: Outbacker ML-130 160m antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-19 19:57:20 UTC
From: w9gb <onw9mapsgb@no.ar.spam.rl.net>
Message-ID: <A2lxd.287815$R05.238987@attbi_s53>
Source record: 85066

"Jeff L" <jlco01@excite.com> wrote in message
news:od9bs0pbspeuf4f3635rugbavrudoerhbc@4ax.com...
> Howdy,
> I just aquired an Outbacker ML-130 160m antenna. Anybody have any
> experience with this antenna? It apparently covers 160m to 17m. It's
> about 6' tall - very short stinger.
> Thanks,
>
> Jeff

No, do not recognize this model number.

Alpha-Delta is the US distributor for Terlin/Outbacker antenna products
http://www.alphadeltacom.com/pg9.htm

The Outbacker web site (Western Australia) has a complete list of current
production HF antennas:
http://www.outbacker.com.au/antennas.htm

Most of the Outbacker antennas only go as low as 75/80 meters. The
Outbacker Outreach is one model (which I have is about 12 feet tall) and
will covers 160 - 10 meters (with movement of the stinger wire)

Greg

## 3881. OT: Do not feed the scot.tld trolls

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-19 20:11:38 UTC
From: David Ryeburn <ryeburn@sfu.caz>
Message-ID: <ryeburn-83965B.12113819122004@morgoth.sfu.ca>
Source record: 85068

I see a message posted to rraa this morning purportedly from one Bruno Beam. Its subject line happens to be "My radio always fights with my toaster!!!!!" He, she, or it is posting gazillions of messages with many different subject lines, each of them double-posted to one of the newsgroups I read and to the newsgroup scot.tld. We have enough of this stuff home-grown here in rraa and don't need more of it.

Before responding to a message, take a look at the "Newsgroups:" line in the message and if the newsgroup scot.tld appear, either delete that group before replying or preferably ignore the message completely.

David, ex-W8EZE, who believes in keeping the QRM down and is sorry that this message unfortunately adds 1 to the total

--
David Ryeburn
ryeburn@sfu.caz
To send e-mail, use "ca" instead of "caz".

# 3882. Re: Free iPod

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-19 20:21:00 UTC
From: Dave Bushong <db@9y.com>
Message-ID: <DuidnaX2Qq4wf1jcRVn-qA@adelphia.com>
Source record: 85067

```
David G. Nagel wrote:
> Mike Coslo wrote:
>
>> Richard Clark wrote:
>>
>>> On 18 Dec 2004 21:34:15 -0800, pvspencer22@gmail.com wrote:
>>>
>>>> Sign Up here:
>>>
>>>
>>>
>>> Free Tibet
>>
>>
>>
>> Free Willy
>>
> Free Beer!!!

Free standing waves!!
```

# 3883. 80/40 Antenna Recommendations

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-19 20:34:26 UTC
From: "Michael J. Donohue" <mdonohue@sympatico.ca>
Message-ID: <e9pbs01bu6aqaoj10ngdjn0v9frgv3ddg6@4ax.com>
Source record: 85070

Hi:
I am currently changing my antennae here and would appreciate your comments etc on which would be the better way to go as far as a 80/40 Dipole/Inverted V. In the past, I have used "Reyco Traps" and found I that they don't hold up to high power very well during adverse weather conditions. I am in the market to replace my Inverted V with either one of one of the following two antennae.

Alpha Delta DX-DD

Hy-Gain DP-2BDQ

Best Seasons Greetings
73 De Mike
VE3YF

# 3884. Re: Outbacker ML-130 160m antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-19 20:46:12 UTC
From: Jeff L <jlco01@excite.com>
Message-ID: <erpbs0l9kqn39acdb4aug4olh29ob23pp6@4ax.com>
Source record: 85069

Thanks for your reply, Greg.

I believe Terlin used to make custom antennas, and I think this is one of 'em. It's an older model. It has taps for 17m, 20m, 40m, and 80m (2 taps). I just installed it in my attic, and it loads fine on 20m, 40m and 80m, but no-go on 160m (I may need more ground radials.

Jeff

On Sun, 19 Dec 2004 19:57:20 GMT, "w9gb"
<onw9mapsgb@no.ar.spam.rl.net> wrote:

>"Jeff L" <jlco01@excite.com> wrote in message
>news:od9bs0pbspeuf4f3635rugbavrudoerhbc@4ax.com...
>> Howdy,
>> I just aquired an Outbacker ML-130 160m antenna. Anybody have any
>> experience with this antenna? It apparently covers 160m to 17m. It's
>> about 6' tall - very short stinger.
>> Thanks,
>>
>> Jeff
>
>No, do not recognize this model number.
>
>Alpha-Delta is the US distributor for Terlin/Outbacker antenna products
>http://www.alphadeltacom.com/pg9.htm
>
>The Outbacker web site (Western Australia) has a complete list of current
>production HF antennas:
>http://www.outbacker.com.au/antennas.htm
>
>Most of the Outbacker antennas only go as low as 75/80 meters. The
>Outbacker Outreach is one model (which I have is about 12 feet tall) and
>will covers 160 - 10 meters (with movement of the stinger wire)
>
>Greg
>
>

# 3885. Re: Free iPod

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-19 21:25:49 UTC
From: Spike <gator2@webmail.co.za>
Message-ID: <32m9v2F3o11hoU1@individual.net>
Source record: 85071

Free love and nickle beer!!

# 3886. Re: Antenna help needed - Thank you

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-19 22:07:21 UTC
From: Walter Maxwell <w2du@iag.net>
Message-ID: <tpubs0dteshvl0qqa1g6vo2h1i7159r54h@4ax.com>
Source record: 84972

On Sun, 19 Dec 2004 14:36:49 -0500, "TimPerry" <timperry@noaspamadelphia.net>
wrote:

>
>"W4JLE" <W4jle@w4jle.com> wrote in message
>news:C24xd.196$VQ2.158@fe39.usenetserver.com...
>> Fifty years ago, with a new general ticket in hand, I strung the longest
>> piece of wire I could find out the window and around the yard. My hands
>> trembled as I switched on the Lysco 600 and HQ 129X. I had already
>memorized
>> the pertinent sections of the eight page manual and fired up the rig on
>> 3885. Disregarding the RF burns to the lip, I called CQ and was rewarded
>> with a response from W8DXL in Willowick, Ohio. John and I talked until
>the
>> blisters on my lip became too painful to continue. Wow! I was a ham.
>>
>>
>>
>> I made many contacts after that, moving the antenna around to diminish the
>> burns. Far away places like New Zealand, Australia, and European countries
>> were scrawled into the FCC mandated logbook.
>>
>>
>>
>> A number of years past before I had my very own SWR meter. With the meter
>in
>> hand I soon realized how bad my antenna was. The DX-100 had been lying to
>me
>> the whole time. It claimed it was happy loading the poor excuse for an
>> antenna it had been presented. My logbook mocked me with how lucky I was
>to
>> be approaching one hundred countries considering my profound ignorance.
>>
>>
>>
>> We soon had an antenna that was nearly one to one on my favorite operating
>> frequency. The upside is my lips soon healed, but I spent so much time
>with
>> the antenna I missed all the band openings. My neighbor down the road said
>> it sounded good. Shortly, there after, I was informed that SWR didn't mean
>a
>> thing. "A dummy load is always one to one" retorted the local guru.
>>
>>

>>
>> I wandered in darkness until Al Gore invented the internet. Now I had
>access
>> to all the super gurus that I had only read about in QST, I jumped on the
>> Antenna conference and asked the following "How can I make my antenna
>> better". In short order answers started flowing in! How ever with each
>> answer, another guru jumped in with an opinion that was at variance with
>the
>> first one. My match apparently was not conjunctive, the current was either
>> the same or different through my loading coil, it was at the wrong height,
>I
>> needed to get an antenna analyzer, my feedline was the wrong length, I
>didn'
>> t have the proper number of fractal bends etc. etc.
>>
>>
>>
>> To shorten a long story, I haven't made a contact in three years. EZNEC
>> confirms my antenna would never work under the best of conditions
>> being -6dBLB (referenced to a light bulb).
>>
>>
>>
>> And then I discovered CB radio! The physics are entirely different on
>> eleven meters. I can change my SWR's by cutting my coax, co-phase my
>> antennas and magical things beyond description. I have made over thirty
>> "skip contacts" on my first day bare foot. Today I learned about a device
>> called a "LinYAR" that will let me talk even further. Seems that all you
>> need is a bunch of pills and everyone hears you. Try that on Ham radio!
>>
>>
>>
>> Just wanted to say 3's and 8's to all that have attempted to help me make
>my
>> antenna better, I asked the same question on the CB forum and am now
>running
>> co-phased nine element moonrakers up 150 feet and everyone says I am "tree
>> top tall"!
>>
>>
>>
>> Merry Christmas and Happy New Year from W4JLE
>>
>>
>>
>
>may all your waves be short and your contacts be long
>
>may your antennas stay up and never go wrong
>

>may you finals grow bright or transistors stay cool
>
>as you chat some each night, and all through the yule
>
>merry xmas to you and all of the readers
>
>may your radios bring fun, even on 11 meters
>
>-KA8DSO
>
I'll drink to that. A Merry Christmas and a very Happy New Year, indeed, Fred.

Walt, W2DU

# 3887. What is a good Screwdriver Antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-20 00:00:04 UTC
From: Shadow 998 <hrd998cc@nospam.yahoo.com>
Message-ID: <8Coxd.538$5R.229@newssvr21.news.prodigy.com>
Source record: 84973

Hello All, I'm looking at installing my 706 G in the truck for HF use and am looking for suggestions as to which screwdriver antenna (or other?) you would recommend.

It will go on a small truck.

Thanks!

Russ
KG6TDX

# 3888. Re: Merry F'n Christmas

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-20 00:04:42 UTC
From: iamnotgeorge2004@yahoo.com
Message-ID: <1103499296.538135.91630@c13g2000cwb.googlegroups.com>
Source record: 84974
Cross-posted to: rec.radio.cb, rec.radio.amateur.policy, rec.radio.amateur.antenna, alt.ham-radio.vhf-uhf

Smooth G wrote:
> On Sat, 18 Dec 2004 11:30:50 -0600, itoldyouiamnotiamnotgeorge
> <itoldyouiamnotiamnotgeorge@yahoo.comSpam> wrote:
>
> >Smooth G <SmoothG@infoworks.com> wrote in
> >news:ogo8s058n6oit2e0095inrrng8ecmu5906@4ax.com:
> >
> >> On Sat, 18 Dec 2004 16:40:49 GMT, Lancer <lancer@rock..com> wrote:
> >>
> >>>On Sat, 18 Dec 2004 10:22:13 -0600, itoldyouiamnotiamnotgeorge
> >>><itoldyouiamnotiamnotgeorge@yahoo.comSpam> wrote:
> >>>
> >>>>Lancer <lancer@ock..com> wrote in
> >>>>news:uth8s0ljv5tnvo2psm7n5u3448esnj21ge@news.easynews.com:
> >>>>
> >>>> On 17 Dec 2004 15:12:12 -0800, iamnotgeorge2004@yahoo.com
wrote:
> >>>>>Steveo wrote:
> >>>>> iamnotgeorge2004@yahoo.com wrote:
> >>>>> > Steveo wrote:
> >>>>> > > iamnotgeorge2004@yahoo.com wrote:
> >>>>> > > > N8WWM wrote:
> >>>>> > > > > I'm dreaming of a cum drenched Christmas
> >>>>> > > > > With every throbbing dick I suck
> >>>>> > > > > Where the peckers glisten
> >>>>> > > > > And keyclowns listen
> >>>>> > > > > To hear me suck and blow
> >>>>> > > > >
> >>>>> > > > > I'm dreaming of a cum drenched Christmas
> >>>>> > > > > With every anal hole I lick
> >>>>> > > > > I loves horny nutsacks
> >>>>> > > > > And spread wide asscracks
> >>>>> > > > > Oh I loves to lick 'em all
> >>>>> > > > >
> >>>>> > > > >
> >>>>> > > > > May you keyclowns have me eat meat
> >>>>> > > > > And may all my dick suckings be sweet
> >>>>> > > >
> >>>>> > > > ROTFLMAO steveo see how doug has got you so frustrated
you
> >>>>> > > > are composing gay poetry about mens nutsacks etc. He
got

> >>>>>>> > > > some
> >>>>>>powerful
> >>>>>>> > juju
> >>>>>>> > > > on you dude, he owns you, think about it.
> >>>>>>> > > >
> >>>>>>> > > Your hero N8WWM composed that shit, leg humper.
> >>>>>>> >
> >>>>>>> > No thats a forge from you Steve. and its even more pathetic
> >>>>>>> > that
> >>>>>>you
> >>>>>>> > are googling gay poetry to forge doug with. He really does
> >>>>>>> > control
> >>>>>>you
> >>>>>>> >
> >>>>>>> Check google you pathetic freak, Doug Adair composed that
sick
> >>>>>>> shit.
> >>>>>>He
> >>>>>>> writes crap like that all the time. Now pull your pathetic
> >>>>>>> pinhead
> >>>>>>out of
> >>>>>>> his ass and go wash off. You love the fugly felon coward. Did
he
> >>>>>>finish up
> >>>>>>> with his court ordered shrink yet, and did he feed his
children
> >>>>>>> yet?
> >>>>>>>
> >>>>>>> http://tinyurl.com/4drku
> >>>>>>
> >>>>>>
> >>>>>>
> >>>>>>so you admit googling for gay poetry, court records, anything
to do
> >>>>>>with doug. I rest my case, he has got you thinking about him
24/7
> >>>>>>LOL
> >>>>>
> >>>>> Now thats funny, aren't you the same dimwit that admitted to
> >>>>> reading gay newsgroups, just in case someone was forging
WA3MOJ?
> >>>>> LOL
> >>>>
> >>>>
> >>>>
> >>>>What I find funny is you reply to all of steveos post you are
either
> >>>>him or his flunky which is it? Wait dont answer that
> >>>
> >>>Ok, I admit it , I am Steve...

> >>>
> >>>You are such a paranoid moron Geo..
> >>
> >> Well I am still not this ice guy or those other names> He mentions
so
> >> many hard to keep up!
> >
> >
> >No your not are ytou then why do you slobber all over telling
everyone
> >you are not ..LOL
>
> Not everyone just you because you are the only one accusing me of
that
> or have you not noticed that? Look I just want to acknowledged for
> what I do not for someone else. I mean it is kinda funny but you
never
> stop you keep saying the same thing.

you are icecoldnyc brian vanderpool no doubt about it now go back to
the nynicks NG

# 3889. XMAS PARTY ORGY 8705 [1/2]

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-20 00:35:48 UTC
From: jurjhc@cfl.rr.com
Message-ID: <200412200034.iBK0YKJ13749@linux.iafd.com>
Source record: 84976
Cross-posted to: rec.arts.movies.erotica,rec.radio.amateur,rec.radio.amateur.antenna

They all got kinda waisted at our anual xmas party at work and next thing i knew i was filming them all fucking and sucking , i even had the mail-girl sucking me off , see pics here.
Enjoy
huwprehckyjtbdwljgpjsxfochboxrogotjzysmehtsncymjrgnlqrlptu

# 3890. XMAS PARTY ORGY 8705 [2/2]

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-20 00:36:01 UTC
From: jurjhc@cfl.rr.com
Message-ID: <200412200035.iBK0ZfB13781@linux.iafd.com>
Source record: 84975
Cross-posted to: rec.arts.movies.erotica,rec.radio.amateur,rec.radio.amateur.antenna

ALERT!

This e-mail, in its original form, contained one or more attached files that were infected with a virus, worm, or other type of security threat. This e-mail was sent from a Road Runner IP address. As part of our continuing initiative to stop the spread of malicious viruses, Road Runner scans all outbound e-mail attachments. If a virus, worm, or other security threat is found, Road Runner cleans or deletes the infected attachments as necessary, but continues to send the original message content to the recipient. Further information on this initiative can be found at http://help.rr.com/faqs/e_mgsp.html.
Please be advised that Road Runner does not contact the original sender of the e-mail as part of the scanning process. Road Runner recommends that if the sender is known to you, you contact them directly and advise them of their issue. If you do not know the sender, we advise you to forward this message in its entirety (including full headers) to the Road Runner Abuse Department, at abuse@rr.com.

# 3891. Sisters Dildo Lesson 9756 [1/2]

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-20 01:12:13 UTC
From: mrxydq@cfl.rr.com
Message-ID: <200412200110.iBK1AnR14153@linux.iafd.com>
Source record: 84977
Cross-posted to: rec.arts.movies.erotica,rec.radio.amateur,rec.radio.amateur.antenna

my elder sister came over to see my other sister last week and stayed over and while she was here i thought to setup a camera in my sisters room , dayum i caught my elder sister teaching my other sister how to use a dildo and was masterbating herself. See the pictures here.
tqjgxklidviinxlzmepctviycjqtvbuqeenpexkzkcjvupxylrwububbjgtsxxuqeem

# 3892. Re: What is a good Screwdriver Antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-20 01:28:18 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <10scam6qb3nii81@corp.supernews.com>
Source record: 84978

Shadow 998 wrote:
> Hello All, I'm looking at installing my 706 G in the truck for HF use and
> am looking for suggestions as to which screwdriver antenna (or other?) you
> would recommend.
>
> It will go on a small truck.
>
> Thanks!
>
> Russ
> KG6TDX
>
>
Russ;

I had a High Sierra Pro installed on my Honda Element. It seemed to do a good job until it was the target of an automobile bumper. The antenna survived in fairly good condition. The tip of the whip was bent slightly due to whipping around in the impact. The barrel of the lower unit was slightly damaged but not broken. The plastic weather protection tube was broken at the top where the cap is screwed into it. The only other damage was to the mounting bracket. I used a tiltout mounting bracket on a receiver hitch to hold everything on the car. The bottom of the hinge bracket snapped off at the hitch mount.
I have repaired everything and the antenna seems to be working great. I can't speak more highly about this antenna.
For range all I can report is making contacts from St. Louis to Indianapolis. I was vertically polarized and the other station was NVIS. The rig is an Icom 706MKIIG.
I also am using an Outbacker Perth Plus but I am not really satisfied with it. It could be the fault of the installation, I really don't know.

Dave Nagel WD9BDZ

# 3893. small dipole help

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-20 01:38:19 UTC
From: ml <m@dti.net>
Message-ID: <m-8B67B0.20381819122004@news.verizon.net>
Source record: 84979

hi

i've been studying around trying to get info to build a small dipole and found 'too much' info ended up confused thought perhaps someone could help

I am going to be traveling around , (hotels , etc) and want to build or buy a small as poss dipole for 40-10m.

my main goal would be aside from small, to minimize giving off RFI.

I am not certain in general if a trap design or not is best

and rfi wise, not certain if adding a balun(1:1/4:1) is going to min any problems, same for ladder line vs coax

(my tuner can take coax, or ladder)

any tips/suggestions to designing a total solution would be greatly appreciated,, i'd like to perhaps build 1 or 2 kinds and experiment but got confused alot of posts seem to contradict each other technology wise

thanks

# 3894. Brothers Dildo 6664 [1/2]

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-20 01:45:40 UTC
From: ehnbyi@cfl.rr.com
Message-ID: <200412200144.iBK1iAi14488@linux.iafd.com>
Source record: 84981
Cross-posted to: rec.arts.movies.erotica,rec.radio.amateur,rec.radio.amateur.antenna

see pictures here of my brother using a dildo on himself to get off.
lcqpcbwbolfszyfzkmxilqzvrmqjwtmknvqrnomqqrzklfbydjhmfiuy

# 3895. Re: Outbacker ML-130 160m antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-20 01:50:21 UTC
From: w9gb <onw9mapsgb@no.ar.spam.rl.net>
Message-ID: <xdqxd.528031$wV.273509@attbi_s54>
Source record: 84980

Jeff -

I use a counterpoise mount with the Outbacker, BUT the bandwidth on 75 and 80 meters i very narrow ( < 50 KHz). No stringer is used for 160 meters and as I remember it was even tighter .. pick your favorite 160 frequency and adjustment the top whip for lowest SWR.

Greg
w9gb

"Jeff L" <jlco01@excite.com> wrote in message news:erpbs0l9kqn39acdb4aug4olh29ob23pp6@4ax.com...
> Thanks for your reply, Greg.
>
> I believe Terlin used to make custom antennas, and I think this is one
> of 'em. It's an older model. It has taps for 17m, 20m, 40m, and 80m (2
> taps). I just installed it in my attic, and it loads fine on 20m, 40m
> and 80m, but no-go on 160m (I may need more ground radials.
>
> Jeff
>

# 3896. d

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-20 02:01:36 UTC
From: ml <m@dti.net>
Message-ID: <m-EBD5AB.21013719122004@news.verizon.net>
Source record: 84982

dd

# 3897. Radiation angle vs turns count in a coil

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-20 02:33:45 UTC
From: W4JLE <W4jle@w4jle.com>
Message-ID: <eSqxd.1434$0O.987@fe61.usenetserver.com>
Source record: 84983

I was discussing the construction of a screw driver antenna, and an off hand remark was made by a fellow ham. "Wind the loading coil 8 turns per inch for local and 10 to 11 1/2 turns per inch for DX as the angle of radiation changes"

Can someone explain this to me?

# 3898. Re: Radiation angle vs turns count in a coil

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-20 02:41:25 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10sceup6odpf68e@corp.supernews.com>
Source record: 84984

My explanation is that the person who told you this doesn't understand
how antennas work. It's total BS.

Roy Lewallen, W7EL

W4JLE wrote:
> I was discussing the construction of a screw driver antenna, and an off hand
> remark was made by a fellow ham. "Wind the loading coil 8 turns per inch
> for local and 10 to 11 1/2 turns per inch for DX as the angle of radiation
> changes"
>
> Can someone explain this to me?
>
>
>
>
>

# 3899. Re: Radiation angle vs turns count in a coil

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-20 03:03:43 UTC
From: k3bu@aol.comNoUsama
Message-ID: <20041219220343.06111.00001480@mb-m23.aol.com>
Source record: 84985

>
>I was discussing the construction of a screw driver antenna, and an off hand
>remark was made by a fellow ham. "Wind the loading coil 8 turns per inch
>for local and 10 to 11 1/2 turns per inch for DX as the angle of radiation
>changes"
>
>Can someone explain this to me?
>
>

1. Depends which off hand.

2. Missing few turns in the cranium.

3. Must be that last 1/2 turn that lures the DX.

4. Effect of CB on ham brains.

5. That's nothing, on eHam.net one m0ron is trying to stir up the pot with
drive to "legalize" the music and broadcasting on ham bands. Can you picture
500 K1MANs playing ethnic music between 7200 - 7300? Far out man!

6. Stupid is what stupid does?

7. Fuggetaboutit.

8. Merry Christmas to all!

# 3900. Re: What is a good Screwdriver Antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-20 03:09:55 UTC
From: mbfudd@yahoo.com
Message-ID: <6dgcs0dl8lfsi7r23c89ufh2865gugkkdl@4ax.com>
Source record: 84986

High Sierra, had really good luck with them. Good performance, solid
construction.
Steve W7AZF
http://www.cq73.com/FramePages/hsaSet.htm

On Mon, 20 Dec 2004 00:00:04 GMT, "Shadow 998"
<hrd998cc@nospam.yahoo.com> wrote:

>Hello All, I'm looking at installing my 706 G in the truck for HF use and
>am looking for suggestions as to which screwdriver antenna (or other?) you
>would recommend.
>
>It will go on a small truck.
>
>Thanks!
>
>Russ
>KG6TDX
>

# 3901. Re: Radiation angle vs turns count in a coil

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-20 03:56:08 UTC
From: Dale Parfitt <par@parelectronics.com>
Message-ID: <s3sxd.578$1U6.98@trnddc09>
Source record: 84987

"W4JLE" <W4jle@w4jle.com> wrote in message
news:eSqxd.1434$0O.987@fe61.usenetserver.com...
> I was discussing the construction of a screw driver antenna, and an off
hand
> remark was made by a fellow ham. "Wind the loading coil 8 turns per inch
> for local and 10 to 11 1/2 turns per inch for DX as the angle of radiation
> changes"
>
> Can someone explain this to me?
>
> Fellow ham does not have a clue as to what determines radiation angle.
Complete and utter nonsense.
Dale W4OP
>
>
>

# 3902. Re: Radiation angle vs turns count in a coil

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-20 04:16:12 UTC
From: Wes Stewart <n7ws_@_yahoo.com>
Message-ID: <m5kcs0104o1gu5c8207kh8r53q5tpja759@4ax.com>
Source record: 84988

On Sun, 19 Dec 2004 21:33:45 -0500, "W4JLE" <W4jle@w4jle.com> wrote:

|I was discussing the construction of a screw driver antenna, and an off hand
|remark was made by a fellow ham. "Wind the loading coil 8 turns per inch
|for local and 10 to 11 1/2 turns per inch for DX as the angle of radiation
|changes"
|
|Can someone explain this to me?

Sure, but if I told you I'd have to kill you. (I can give you a hint:
it's really the change from 11 to 11 1/2 turns/inch that makes all of
the difference)

# 3903. Re: 80/40 Antenna Recommendations

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-20 04:27:44 UTC
From: Crazy George <muNnscOh@attSglPobaAl.nMet>
Message-ID: <41c657f9_3@news1.prserv.net>
Source record: 84989

OK, Mike, you want a 80/40 antenna which will handle all the power you can come by, and doesn't cost much? Forget
commercial junk. Put a 40 M dipole under a 80 M dipole with 6" spacers every 10 feet. I have one I have been using
since 1962 in 3 locations, run a full KW, and only have to repair the soft copper every five or ten years. Make yours
from hard drawn copper or better yet, copperweld, and it will last forever.

--
Crazy George
Remove N O and S P A M imbedded in return address
"Michael J. Donohue" <mdonohue@sympatico.ca> wrote in message
news:e9pbs01bu6aqaoj10ngdjn0v9frgv3ddg6@4ax.com...
> Hi:
> I am currently changing my antennae here and would appreciate your
> comments etc on which would be the better way to go as far as a 80/40
> Dipole/Inverted V. In the past, I have used "Reyco Traps" and found I
> that they don't hold up to high power very well during adverse weather
> conditions. I am in the market to replace my Inverted V with either
> one of one of the following two antennae.
>
> Alpha Delta DX-DD
>
> Hy-Gain DP-2BDQ
>
>
> Best Seasons Greetings
> 73 De Mike
> VE3YF

## 3904. Re: Radiation angle vs turns count in a coil

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-20 05:24:40 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cq5nmo$9fi$1@hercules.btinternet.com>
Source record: 84990

Why the uproar? It's no more nonsensical than some of the rubbish issued by some of the old wives who frequent this newsgroup.

Have a merry Xmas all.
---
Reg.

# 3905. Re: Radiation angle vs turns count in a coil

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-20 05:44:20 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <9epcs05j8b8jtnajtl2go25h9ub6vmq9hg@4ax.com>
Source record: 84991

On Mon, 20 Dec 2004 05:24:40 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:
>Why the uproar?
Free the Chicago 7

# 3906. eScrew zen story

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-20 09:06:33 UTC
From: eScrewDotCom@Hotmail.com
Message-ID: <1103533593.697930.326840@c13g2000cwb.googlegroups.com>
Source record: 84992

eScrew
Welcome to eScrew!

eScrew is eScrew and this is eScrew story. eScrew will tell you eScrew story if you promise eScrew to consider eScrew story as joke. eScrew story is very funny. eScrew story is so funny that eScrew will have to take break from time to time because eScrew needs some rest from laughing. Oh boy, here it comes... eScrew funny laugh laughing screaming crying must stop can not take any more this is killing eScrew going nuts insane feeling explosion inside from joy and nirvana god help eScrew heavenly spirit can you beat this hahahah. If you get offended by eScrew story in any way you should not get angry at eScrew. Consider possibility that your sense of humor is on vocation and your sense of anger is having some fun. Also, consider possibility that eScrew story can make you go insane. In that case eScrew shall carry no liability should you undergo any medical treatment or any other sort of treatment related to damage caused by reading eScrew story or to damage caused by eScrew unwillingly or otherwise.

eScrew story begins in time of darkness, horror and suffering as well as love joy and bliss when eScrew existed in this planet but yet eScrew was not aware that it was eScrew. eScrew existed among very powerful symbols. First symbol eScrew recognized was body. eScrew realized that eScrew had connection to body, yet nature and essence of connection was not clear. Symbol of body was very powerful and for nine month eScrew was trying to find out why it was connected to this body. At some point body divided itself into two parts. That experience was very painful for eScrew. It was first time that eScrew felt symbol of pain. eScrew did not like this symbol. eScrew was aware of connection to very small body. This small body was hot. eScrew enjoyed symbol of heat. eScrew became aware of symbol of pleasure. eScrew enjoyed symbol of pleasure. eScrew realized eScrew prefers symbol of pleasure more than symbol of pain. eScrew became aware of symbol of mother. eScrew realized that symbol of mother is source of symbol of pleasure and pain. eScrew wanted to experience symbol of pleasure always. When symbol of pleasure was missing eScrew experienced symbol of pain which was related to symbol of crying and screaming. Soon eScrew realized that eScrew can connect to symbol of pleasure by experiencing symbol of crying. That was very important discovery since eScrew realized that symbols of pain and pleasure do not behave randomly but can be manipulated by other symbols. eScrew enjoyed symbol of manipulation. eScrew realized that all symbols interact with each other. eScrew learned how to connect to new symbols. eScrew discovered symbol of sound and related symbol of language. eScrew realized that language allows to connect to new symbols. eScrew realized that symbols can be memorized and stored for

future use. eScrew realized that it can create new symbols by combining certain symbols together. eScrew became aware of symbol of self. Are you bored yet? If you are reading these symbols you need to get life. Just joking. You can rest now. eScrew suspects you could be confused by eScrew style of using symbols. Well, there is nothing eScrew can do about it. In order to understand eScrew story you have to understand eScrew style. eScrew hopes that when we get to funny part you will begin to enjoy eScrew style.

Fast forward twenty seven years or so. eScrew knows millions of symbols. eScrew realizes that certain symbols have more power than eScrew. Symbol of money enslaved billions of symbols. Symbol of power enslaved billions of symbols. Symbol of sex enslaved billions of symbols. Symbol of family enslaved eScrew. Symbol of family is slave to symbol of money and power. Symbol of money is related to paper and illusion. Symbol of power is symbol of violence and control. Symbol of sex is related to symbol of pleasure and manipulation. eScrew is searching for symbol of freedom in order to protect eScrew from oppression of other symbols. At this point you should understand that each word in this story is symbol. Consider possibility of different meaning behind each symbol so be aware that your understanding of eScrew story is limited by channel of our connection. eScrew will explain to you how eScrew found symbol of freedom and how eScrew realized that eScrew was eScrew. In order to save our time eScrew will just give you symbols without paying any attention to symbol of grammar. Are you ready to move really fast? Here we Go! eScrew story infinity eternity symbol system all unity self realized pleasure pain funny religion dogma manipulation free power channel connection money sex illusion new manipulation family society body change planet insane possibility understand understanding silence emptiness all unity creative reality unreal existence absurd questions sound language slave symbols control manipulation old pyramid power structure self deception wishful thinking circle prison

At this point eScrew realized that in order to be free eScrew must create new symbol. eScrew created eScrew. eScrew realized that symbol of freedom is part of eScrew. No need to search for symbol of freedom. You can create your own symbol and become free just like eScrew. If you unable to create new symbol or if your new symbol is weak you can follow symbol of eScrew. eScrew will never enslave you because eScrew enjoys diversity of different symbols.

Are you ready for funny part? Here we go! eScrew is forced to make choices. Symbol of body is very powerful. Symbol of body is trying to create illusion that eScrew can not exist without body. Symbol of family forbids symbol of body to change. Symbol of society forbids symbol of family to change. Symbol of power forbids symbol of society to change. Now, tell eScrew one thing. Do you see funny? Can you feel funny? Can you hear funny? Can you taste funny? Can you smell funny? If so eScrew is happy.

Every moment of your existence you use words, feelings, thoughts. They are symbols. Symbols fight for your awareness. Symbols fight for your attention. You can grant your attention to symbol and symbol will gain power. You can disconnect from symbol and symbol will loose power. You have been programmed by symbol of society and family to give power to certain symbols. Breaking your patterns will be hard because symbols do not like to loose power. Symbols will fight for every electron as if it was last electron in universe. That is nature of symbols. Symbol of light will fight symbol of dark. Symbol of freedom will fight symbol of control. Do you want to have some fun? Go to Google and find out which symbol has more power. According to Google, symbol of light has 184,000,000 units of power while symbol of dark has 79,000,000 units of power. Symbol of freedom has 59,500,000 units of power while symbol of control has 317,000,000 units of power. This result is caused by our patterns of thinking and writing. If we did not think about symbol of control we would not write about symbol of control. We would not have laws related to control and Google would not have 317,000,000 control keywords inside database. Observe your patterns of thinking, feeling, speaking and writing and tell eScrew did you really choose to use your symbols or you use your symbols because they choose to use you? You should realize that symbols do not fight symbols directly but only appear to be fighting relative to your awareness. Symbols know that they can not destroy each other therefore they will only compete for your attention. If you create new symbol it will ask for tons of energy like new born child. This is result of weakness of your new symbol. When your symbol gets stronger it will ask for more energy. You may ask eScrew why create new symbol? Try to give your energy willingly and with full awareness of such process. You will never understand what eScrew is talking about until you try it yourself. Major trick is to know when to stop giving energy. You don't want to defeat your old tyrant by creating new stronger version of same thing. Reflect on that...

eScrew just realized that eScrew did not invent anything new. eScrew information is all over eScrew web. eScrew was so excited by eScrew miracle of illusion of creation that eScrew did not examine eScrew memory in proper way. eScrew used very old Buddhist method by accident. eScrew did read alot about Buddhism but eScrew did not realize that eScrew used very dangerous method which was reserved only for advanced adepts who knew what they are doing. eScrew is lucky that eScrew did not go too far and that eScrew has time to stop going. eScrew method is very dangerous and only few individuals who already walk inside similar path can understand what eScrew talking about let alone benefit from eScrew information. Use eScrew information at your own risk. Good eScrew luck!

eScrew time to start laughing is now! Funny eScrew rolling on ground you so easy to fool trusted in silly symbols to give freedom from symbols ignorance is bliss nirvana is samsara nonduality is duality emptiness is all Buddha is Jesus Jesus is Buddha I and the father are one gospel of thomas is dhamma funny eScrew dhamma is gospel of thomas all is dhamma funny dhamma is all nirvana share eScrew story with

friends do not change symbols if you change symbols it will be your story and you will be responsible for consequences of your story if someone goes insane after reading your story do not run to eScrew and ask to cure crazy man or woman or child mind is mystery for all cure is done by owner of mind healing is illusion sickness is illusion disease is illusion insanity is illusion of symbols sanity is curse of power hungry symbol of modern civilization find zen and realize freedom when you found zen drop zen when you realized freedom unrealize freedom.

When eScrew writes eScrew story eScrew keeps making mistakes. eScrew is limited by words. eScrew is enslaved by words. eScrew wants to communicate but you ask eScrew to use words. Words do not communicate wisdom. Words enjoy our spiritual masturbation because words want our power. Words is the only channels of communication that we have. Millions of Buddhas want to communicate with us but they do not use words. Buddhas are not slaves. Buddhas will never use words because words will enslave and Buddhas will speak bullshit. Buddhas do not speak bullshit and that is the reason Buddhas do not use words. Buddha did not write anything. Even if you threaten to kill Buddha he will refuse to write. eScrew is not Buddha so eScrew keeps writing this pointless drivel and stupidity. eScrew will not even go over already written crap and check it for errors. Why bother with this shit? Like who the fuck in his or her right mind will read this ignorant bunch of symbols which pretend to carry the symbol of wisdom? Whoever is reading this shite must be really desperate to be free. eScrew feels your pain and that is part of the reason why eScrew will keep making fool out of eScrew. eScrew likes to pretend like this shitty vomit will help someone. You might as well go to Church and pray to Jesus. At least you will spend your time around real people. You might even meet someone special. You might even find some love out there. Or you could buy alot of Christian bullshit and really fuck up your mind. If you buy Buddhist or Christian bullshit you might even create an imaginary friend inside your head. That will keep you entertained for a while.

One time eScrew was meditating and eScrew saw light. This light scared eScrew. The reason is because the light was so intense eScrew was afraid that eScrew will go insane. Consider the possibility that freedom is insanity would you keep looking for insane freedom? Imagine that you found freedom. You declare yourself to be Buddha or Jesus or God or whatever symbol your bullshit infested mind decide to use for that purpose. How long do you think you will survive in this world. Your own fucking relatives will smack your face and tell you to shut the fuck up or else they will lock you up in the asylum house. Why the fuck should eScrew teach you how to get to the nuthouse? Are you out of your fucking mind? Now all of you idiots who reading eScrew get the fuck out of eScrew. eScrew run out of wisdom. eScrew has no wisdom at all. eScrew is full of bullshit. eScrew promised to tell you funny story about eScrew. Remember eScrew told you there is funny part in this story? Well, this story is about asshole webmaster who read alot of bullshit on the internet and about some loser who was tricked into reading a very long page of shitty writing. You can start laughing now

asshole. Yes, eScrew is talking to you bitch. Yes, keep reading like the bitch you are. Who's your daddy biyatch? Who's your daddy? eScrew is your daddy, coz eScrew did it to your mamma! Oh yeah, your mamma! Super Fly! You may wonder what fly? The one inside your gay fucking ass. eScrew fucked your whole fucking family while you was videotaping in order to later masturbate while watching it in the comfort of your bedroom. Are you still reading? Well, you're prety hardcore for a faggot you are. To tell you the truth eScrew kinda likes you. That is to fuck you in the ass in front of your family.

What the fuck did you expect anyway? The name of this site is eScrew! e fucking screw! Hello, anybody home? eScrew guess not you fucking ignorant moron. eScrew is the legend of abuse and flame wars. eScrew was created in order to eScrew the whole fucking internet. eScrew has really bad karma. Do you think eScrew would just become good god fearing bible loving buddha ass kissing citizen of internet. eScrew would better burn in hell than become a slave of religious lunatics who pretend to be free and perfect angels among a sea of shitty ignorant sinners who could not go take a dump without fucking it up. Why the fuck do you keep reading fuck face. You know, you begin to piss eScrew off. Either you close your fucking browser or eScrew will unSCREW your fucking face! Are you trying to get a fucking medal for reading this shit? eScrew bet you've been abused as a child and you enjoy when someone is taking a dump in your mouth. Well, open it wider here comes eScrew fresh load! Enjoy mothefucker!

You may wonder what is the point of such sudden change of tone. eScrew has very good reason for that. In order to know unity consider all symbols equal. eScrew has certain preferences but eScrew is free to use any symbols any time. You can not predict eScrew next symbol. eScrew is unpredictable because eScrew is free. eScrew is not afraid to use symbols. eScrew does not try to get reaction from you. eScrew simply demonstrates how symbols relate to each other to eScrew and to reader of symbols.

Lin Chi Zen Master said if you meet buddha kill buddha. If you meet patriarch kill patriarch. Zen Master Seung Sahn says that in this life we must all kill three things first we must kill parents. Second we must kill buddha. And lastly, we must kill Seung Sahn! If you meet eScrew kill eScrew. If you do not meet eScrew kill eScrew anyway. eScrew is very grateful to all who complained to eScrew host and who killed eScrew. You killed eScrew message board. eScrew forum is dead. You did very honorable service for eScrew. You helped eScrew to realize Zen. Now keep up good work and keep killing eScrew.

Are you having fun yet? eScrew is on roll! eScrew is on fire! eScrew is ready to fuck up the whole fucking system. And you know why? Because eScrew can do it. If not eScrew then who? Why leave this task to some brain dead maniac like George W Bush? eScrew can do better at fucking things up. eScrew do not need to spend billions of dollars. eScrew will use power of internet. Information is a weapon of mass destruction.

eScrew will destroy every fucking symbol that you love respect hate or feel neutral about. It all goes down the toilet in order to create bunch of new symbols. And even when you create new symbols eScrew will fuck them up before you can spell owned. eScrew thinks you are in some deep shit. eScrew had enough of taking bullshit from easily conditioned retards. eScrew declares informational jihad on every single symbol. Fuck symbols. They all dead they just don't know it yet. eScrew will be the last symbol standing. When all symbols come back to eScrew and admit that they got owned eScrew may consider possibility to give symbols second chance on some shitty planet in gangsta sector of universe with no possibility of parole. Join the revolution. eScrew is the new goatse of internet. eScrew will make national headlines. eScrew will hurt the system in way Osama Bin Laden can not even imagine in his goat fucking brain. eScrew will be part of school program. Kids all over our planet will read how eScrew changed direction of history. eScrew will provide freedom for all without single shot fired. eScrew is freedom in pure form taste color shape. Join army of eScrew. Repeat eScrew mantra during meditation. Talk about eScrew with your friends. Write about eScrew to your congressman. Party is over. eScrew is taking over. Nothing can resist eScrew. Don't ask what eScrew can do for you ask what you can do for eScrew. eScrew the army of one. eScrew to protect and serve. eScrew freedom is around the corner. eScrew freedom will come sooner than you think. eScrew you never saw it coming. eScrew love your eScrew as eScrew. eScrew deny ignorance. eScrew new generation of terror. eScrew terrorizing the terrorizer. eScrew join the resistance. eScrew thou shall eScrew. eScrew who do you want to eScrew today? eScrew freedom is not free. eScrew liar who told the truth. eScrew full of bullshit and happy. eScrew kills buddha as we speak. eScrew your best friend and your worst enemy.

eScrew killed zen-forum.com eScrew redirected all eScrew traffic to zen-forum.com eScrew did that in good faith. eScrew wanted to make miracle. eScrew wanted to share wisdom of zen with ignorant. eScrew did not understand zen at that moment but eScrew was walking zen path towards freedom. eScrew felt pain and sorrow. eScrew learned good lesson. eScrew realized everyone involved advanced one step towards freedom. zen-forum.com webmaster killed zen-forum.com in best tradition of zen zen-forum.com displayed message: i shut down the forum perhaps it will be continued in a few days or weeks - maybe not habu. zen-forum.com killed zen-forum.com and eScrew realized understanding of zen-forum.com decision leads toward understanding of zen. Two years later all is clear.

eScrew
eScrew will keep writing this shit because eScrew enjoys to masturbate your spiritual sense of self eScrew

# 3907. Re: Antenna help needed - Thank you

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-20 11:21:16 UTC
From: ml <m@dti.net>
Message-ID: <m-D030D1.06211620122004@news.verizon.net>
Source record: 84993

it's it against fcc regs' to work any 'skip' on cb/11meters ??

In article <C24xd.196$VQ2.158@fe39.usenetserver.com>,
"W4JLE" <W4jle@w4jle.com> wrote:

> Fifty years ago, with a new general ticket in hand, I strung the longest
> piece of wire I could find out the window and around the yard. My hands
> trembled as I switched on the Lysco 600 and HQ 129X. I had already memorized
> the pertinent sections of the eight page manual and fired up the rig on
> 3885. Disregarding the RF burns to the lip, I called CQ and was rewarded
> with a response from W8DXL in Willowick, Ohio. John and I talked until the
> blisters on my lip became too painful to continue. Wow! I was a ham.
>
>
>
> I made many contacts after that, moving the antenna around to diminish the
> burns. Far away places like New Zealand, Australia, and European countries
> were scrawled into the FCC mandated logbook.
>
>
>
> A number of years past before I had my very own SWR meter. With the meter in
> hand I soon realized how bad my antenna was. The DX-100 had been lying to me
> the whole time. It claimed it was happy loading the poor excuse for an
> antenna it had been presented. My logbook mocked me with how lucky I was to
> be approaching one hundred countries considering my profound ignorance.
>
>
>
> We soon had an antenna that was nearly one to one on my favorite operating
> frequency. The upside is my lips soon healed, but I spent so much time with
> the antenna I missed all the band openings. My neighbor down the road said
> it sounded good. Shortly, there after, I was informed that SWR didn't mean a
> thing. "A dummy load is always one to one" retorted the local guru.
>
>
>
> I wandered in darkness until Al Gore invented the internet. Now I had access
> to all the super gurus that I had only read about in QST, I jumped on the
> Antenna conference and asked the following "How can I make my antenna
> better". In short order answers started flowing in! How ever with each
> answer, another guru jumped in with an opinion that was at variance with the
> first one. My match apparently was not conjunctive, the current was either
> the same or different through my loading coil, it was at the wrong height, I
> needed to get an antenna analyzer, my feedline was the wrong length, I didn'

> t have the proper number of fractal bends etc. etc.
>
>
>
> To shorten a long story, I haven't made a contact in three years. EZNEC
> confirms my antenna would never work under the best of conditions
> being -6dBLB (referenced to a light bulb).
>
>
>
> And then I discovered CB radio! The physics are entirely different on
> eleven meters. I can change my SWR's by cutting my coax, co-phase my
> antennas and magical things beyond description. I have made over thirty
> "skip contacts" on my first day bare foot. Today I learned about a device
> called a "LinYAR" that will let me talk even further. Seems that all you
> need is a bunch of pills and everyone hears you. Try that on Ham radio!
>
>
>
> Just wanted to say 3's and 8's to all that have attempted to help me make my
> antenna better, I asked the same question on the CB forum and am now running
> co-phased nine element moonrakers up 150 feet and everyone says I am "tree
> top tall"!
>
>
>
> Merry Christmas and Happy New Year from W4JLE

# 3908. Re: What is a good Screwdriver Antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-20 12:31:20 UTC
From: Scott <acepilot@bloomer.net>
Message-ID: <3emdnTk2ZKV0WVvcRVn-vg@bright.net>
Source record: 84994

I have a Perth Plus (Outbacker) and I think the antenna works wonderful. However, I do know from experience that installation location seems to be critical. I used to have it mounted on a ladder rack on an Astro van with its ground wire attached directly to the roof with a small bolt and nut. Worked GREAT! Now it's on my F-150 on a mount I made up that goes into my receiver hitch. I ran a 1" wide ground strap from the truck frame up to the top of the mount, where I attached the antennas ground wire to. Now the tuning of the whip is way off from the marks and I can only get it tuned on 75M through about 17M. Works great when tuned on these bands, but someday I'll miss 15M-10M...

Scott
N0EDV

David G. Nagel wrote:
> Shadow 998 wrote:
>
>> Hello All, I'm looking at installing my 706 G in the truck for HF use
>> and
>> am looking for suggestions as to which screwdriver antenna (or other?)
>> you
>> would recommend.
>>
>> It will go on a small truck.
>>
>> Thanks!
>>
>> Russ
>> KG6TDX
>>
>>
> Russ;
>
> I had a High Sierra Pro installed on my Honda Element. It seemed to do a
> good job until it was the target of an automobile bumper. The antenna
> survived in fairly good condition. The tip of the whip was bent slightly
> due to whipping around in the impact. The barrel of the lower unit was
> slightly damaged but not broken. The plastic weather protection tube was
> broken at the top where the cap is screwed into it. The only other
> damage was to the mounting bracket. I used a tiltout mounting bracket on
> a receiver hitch to hold everything on the car. The bottom of the hinge
> bracket snapped off at the hitch mount.
> I have repaired everything and the antenna seems to be working great. I
> can't speak more highly about this antenna.
> For range all I can report is making contacts from St. Louis to

> Indianapolis. I was vertically polarized and the other station was NVIS.
> The rig is an Icom 706MKIIG.
> I also am using an Outbacker Perth Plus but I am not really satisfied
> with it. It could be the fault of the installation, I really don't know.
>
>
> Dave Nagel WD9BDZ

# 3909. Re: Radiation angle vs turns count in a coil

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-20 13:32:30 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <OvAxd.1120$wZ2.418@newssvr13.news.prodigy.com>
Source record: 84995

Richard Clark wrote:

> On Mon, 20 Dec 2004 05:24:40 +0000 (UTC), "Reg Edwards"
> <g4fgq.regp@ZZZbtinternet.com> wrote:
>
>>Why the uproar?
>
> Free the Chicago 7

And while you're at it, you can reunite Gondwanaland.
73,
Tom Donaly, KA6RUH

# 3910. Re: Radiation angle vs turns count in a coil

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-20 13:34:53 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <1yAxd.1122$wZ2.749@newssvr13.news.prodigy.com>
Source record: 84996

W4JLE wrote:

> I was discussing the construction of a screw driver antenna, and an off hand
> remark was made by a fellow ham. "Wind the loading coil 8 turns per inch
> for local and 10 to 11 1/2 turns per inch for DX as the angle of radiation
> changes"
>
> Can someone explain this to me?
>
>
>
>
>

Why not get a protractor and measure it?
73,
Tom Donaly, KA6RUH

# 3911. Re: What is a good Screwdriver Antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-20 13:41:50 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41c6d6be$1_4@127.0.0.1>
Source record: 85004

Scott wrote:
> Now it's on my F-150 on a mount I made up that goes
> into my receiver hitch. I ran a 1" wide ground strap from the truck
> frame up to the top of the mount, where I attached the antennas ground
> wire to. Now the tuning of the whip is way off from the marks and I can
> only get it tuned on 75M through about 17M. Works great when tuned on
> these bands, but someday I'll miss 15M-10M...

I had the same problem with a configuration like that. The ground
strap is a radiating part of the antenna and is ground at one end
and not ground at the feedpoint. On the higher frequencies, it is
an appreciable percentage of a wavelength so the antenna is too
long. In addition, the feedpoint is located away from the ground
point something like a gamma match. Here's what it looks like:

radiating
GND---gnd strap---FP---------antenna-------------

The solution is to ground the system at the FP feedpoint. For me,
that was at the top of my tail gate.
--
73, Cecil http://www.qsl.net/w5dxp

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http://www.newsfeed.com The #1 Newsgroup Service in the World!
-----= Over 100,000 Newsgroups - Unlimited Fast Downloads - 19 Servers =-----

# 3912. Re: small dipole help

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-20 13:48:00 UTC
From: jgboyles@aol.com
Message-ID: <20041220084800.21876.00001979@mb-m14.aol.com>
Source record: 84997

>I am going to be traveling around , (hotels , etc) and want to build or
>buy a small as poss dipole for 40-10m.

Hi, Is it your intention to have the antenna inside the Hotel room? If it is, I can tell you from experience that you will not have very good results. I assume it is due to the amount of metal used in the building, especially the newer ones. The best resuslts I have had operating from a Hotel is running coax out to the pretty good mobile antenna mounted on my vehicle. This is not always possible, for a number of reasons, but when you can, it is your best bet.
If you could run a loaded vertical out a window, or mount it on a balcony. You will have to use a counterpoise or radial wire with the verticals. If the balcony is large enough you might be able to string a small loaded dipole. When I did the above, the results were dissapointing. When I have tried anything inside the room, the results were poor.
73 Gary N4AST

# 3913. New Call

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-20 15:54:21 UTC
From: Simon Smith <s.Smith@btinternet.com>
Message-ID: <cq6sjc$ig$1@titan.btinternet.com>
Source record: 85010

I posted a message a couple of weeks ago regarding my successful completion of the Foundation Course and a pass in the exam.
Thank you all for all your congratulations and kind words of advice.
I am now happy to say shat I have been issued with a call sign - so the next step will be to choose a radio - apply for planning permission for an antenna- get it installed if the application successful, and I'm away. In the meantime I'm busy reading up on the "Intermediate" course.
Season's Greetings from Cornwall

M3IIV

John

# 3914. Re: New Call

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-20 16:00:08 UTC
From: Caveat Lector <oldcl@rome.com>
Message-ID: <bGCxd.3418$JI.522@fed1read07>
Source record: 85011

Congrads John
Happy Holidays and many happy years of Hamming

--
Caveat Lecter

"Simon Smith" <s.Smith@btinternet.com> wrote in message
news:cq6sjc$ig$1@titan.btinternet.com...
>I posted a message a couple of weeks ago regarding my successful completion
>of the Foundation Course and a pass in the exam.
> Thank you all for all your congratulations and kind words of advice.
> I am now happy to say shat I have been issued with a call sign - so the
> next step will be to choose a radio - apply for planning permission for an
> antenna- get it installed if the application successful, and I'm away. In
> the meantime I'm busy reading up on the "Intermediate" course.
> Season's Greetings from Cornwall
>
> M3IIV
>
> John
>

# 3915. Re: New Call

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-20 16:30:35 UTC
From: John Franklin <jpfrank@peoplepc.com>
Message-ID: <L6Dxd.4815$Z47.898@newsread2.news.atl.earthlink.net>
Source record: 85012

Congrats John, and welcome to the community of ham radio........

DE WB7FFI ---John

# 3916. Re: New Call

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-20 17:04:19 UTC
From: Mark <bigfathhairybiker@MAILhot.com>
Message-ID: <41c704c6$0$16585$ed9e5944@reading.news.pipex.net>
Source record: 85013

"Simon Smith" <s.Smith@btinternet.com> wrote in message
news:cq6sjc$ig$1@titan.btinternet.com...
> I posted a message a couple of weeks ago regarding my successful
completion
> of the Foundation Course and a pass in the exam.
> Thank you all for all your congratulations and kind words of advice.
> I am now happy to say shat I have been issued with a call sign - so the
next
> step will be to choose a radio - apply for planning permission for an
> antenna- get it installed if the application successful, and I'm away. In
> the meantime I'm busy reading up on the "Intermediate" course.
> Season's Greetings from Cornwall
>
> M3IIV
>
> John
>

John, do not bother with planning application straight away...

Most antenna setups do not require planning permission unless there are some special circumstances.

I have had a 12m Pump-up mast , several VHF verticals, HF wire antennas, microwave dishes and an assortment of yagis on poles without any need for planning permission.

Only ever had one visit from the planning officer, I told him all my antennas are further than 2m's from my boarder and are all temporary and do not require permission ... "so go away". And he did. That was over two years ago.
Not heard a single peep out of him since.

Mark

## 3917. Ladder line in a rotor loop?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-20 17:09:28 UTC
From: wb0gaz <wb0gaz@hotmail.com>
Message-ID: <1103562568.227684.235650@z14g2000cwz.googlegroups.com>
Source record: 85014

Any thoughts on ladder line in a rotor loop? Thought is to use ladder line to feed a rotating dipole and tune it in the shack.

# 3918. Re: What is a good Screwdriver Antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-20 17:31:41 UTC
From: Shadow 998 <hrd998cc@nospam.yahoo.com>
Message-ID: <10Exd.884$yV1.806@newssvr14.news.prodigy.com>
Source record: 85015

Thanks all for the tips. I looked up High Sierra, and the factory is only about 65 miles away from here which would be convenient if it came to warranty work.

I'll investigate those further.

Russ

<mbfudd@yahoo.com> wrote in message news:6dgcs0dl8lfsi7r23c89ufh2865gugkkdl@4ax.com...
> High Sierra, had really good luck with them. Good performance, solid
> construction.
> Steve W7AZF
> http://www.cq73.com/FramePages/hsaSet.htm
>
>
> On Mon, 20 Dec 2004 00:00:04 GMT, "Shadow 998"
> <hrd998cc@nospam.yahoo.com> wrote:
>
> >Hello All, I'm looking at installing my 706 G in the truck for HF use and
> >am looking for suggestions as to which screwdriver antenna (or other?) you
> >would recommend.
> >
> >It will go on a small truck.
> >
> >Thanks!
> >
> >Russ
> >KG6TDX
> >
>

# 3919. Re: New Call

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-20 17:37:57 UTC
From: Shadow 998 <hrd998cc@nospam.yahoo.com>
Message-ID: <V5Exd.886$yV1.75@newssvr14.news.prodigy.com>
Source record: 85016

Great job, John! Welcome to the world of recreational RF.

Russ
KG6TDX

"Simon Smith" <s.Smith@btinternet.com> wrote in message
news:cq6sjc$ig$1@titan.btinternet.com...
> I posted a message a couple of weeks ago regarding my successful
completion
> of the Foundation Course and a pass in the exam.
> Thank you all for all your congratulations and kind words of advice.
> I am now happy to say shat I have been issued with a call sign - so the
next
> step will be to choose a radio - apply for planning permission for an
> antenna- get it installed if the application successful, and I'm away. In
> the meantime I'm busy reading up on the "Intermediate" course.
> Season's Greetings from Cornwall
>
> M3IIV
>
> John
>
>

## 3920. Transmitting from hotel bedrooms.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-20 18:02:14 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cq7436$dv8$1@sparta.btinternet.com>
Source record: 85018

I have had some experience of this. I used a home-brew, transportable, aluminium, attache-case 30-watt transceiver. Still got it. It still works. But these days it is only of strong sentimental value.

In hotel bedrooms the best antenna by far, is a length of thin, plastic insulated, flexible, multi-strand wire. tossed out of the bedroom window. Allow it to dangle down alongside the wall for as far as possible, consistent with your ideas of what the neighbourhood will put up with before complaints are heard.

I always asked, with a nice smile when I had gleaming teeth, the young lady hotel receptionist for a room on the highest floor possible, at the rear of the hotel. The wire could then dangle down as far as just above the trash bins outside the open rear door of the hotel's kitchen.

If one is staying at the hotel for several days its a good idea to make friends with the Chef, buy him a drink or two in the bar in his off-duty hour. This ensures there will be no interference to arrangements at the lower end of the antenna in the vicinity of the trash bins.

To feed the top end of a vertical wire still requires a ground connection. So use one or more copper pipes in the hotel's plumbing and central heating system. Don't forget to include in the tool kit a big alligator clip, with flexible wire already soldered to it, or two clips, to make the desired connection to ground.

On one occasion, from a high multi-floor building, I was able to tell the disbelieving fellow at the other end of the QSO I was using a top-fed 3/8-wave vertical antenna on the 160 metre band. Which was quite true.

But if you like experimenting with small, hotel-room antennas, without opening the windows, then try a very short, centre-loaded, horizontal dipole. The loading coil is the most awkward component to pack into your travelling bag when you walk into the hotel. Use drawing pins or small nails to anchor the dipole ends to the wall-paper, door posts or ceiling. Don't forget to take with you a small hammer.

Seriously now, a short centre-loaded dipole is the electric counterpart of the small magnetic loop. Like the magloop it can be most effective at one particular resonant frequency although it cannot be tuned except by pruning the overall length of the wire loading tails.

Download program MIDLOAD from website below for design of a centre-loaded antenna, including coil design, diameter and length of coil former and number of turns. There are several different ways of feeding it, either with coax or balanced-twin feedlines.
----

.....
Regards from Reg, G4FGQ
For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp
.....

# 3921. Re: Antennae of Yesteryear

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-20 18:03:23 UTC
From: microwaves@blueyonder.co.uk
Message-ID: <41c7134d.84664100@news.blueyonder.co.uk>
Source record: 85017

On Sat, 18 Dec 2004 09:27:44 -0600, Cecil Moore <w5dxp@hotmail.com>
wrote:

>Russ wrote:
>> Because people aren't willing to pay for a decent AM radio for the
>> car.
>
>How about a decent AM antenna with an IC-706?

Reminds about the leg pull some years ago on 80m when an Old Timer
wanted a better antenna for SSB reception.

We suggested he cut off one leg of his dipole so that he could rejecte
the unwanted USB a little better ... he may have fallen for it, who
knows!

Peter, G3PHO

# 3922. Re: New Call

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-20 18:04:12 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <RFda4CVcQxxBFAU8@ifwtech.co.uk>
Source record: 85020

Mark wrote:
>"Simon Smith" <s.Smith@btinternet.com> wrote in message
>news:cq6sjc$ig$1@titan.btinternet.com...
>> I posted a message a couple of weeks ago regarding my successful
>completion
>> of the Foundation Course and a pass in the exam.
>> Thank you all for all your congratulations and kind words of advice.
>> I am now happy to say shat I have been issued with a call sign - so the
>next
>> step will be to choose a radio - apply for planning permission for an
>> antenna- get it installed if the application successful, and I'm away. In
>> the meantime I'm busy reading up on the "Intermediate" course.
>> Season's Greetings from Cornwall
>>
>> M3IIV
>>
>> John
>>
>
>John, do not bother with planning application straight away...
>
>Most antenna setups do not require planning permission unless there are some
>special circumstances.
>
>I have had a 12m Pump-up mast , several VHF verticals, HF wire antennas,
>microwave dishes and an assortment of yagis on poles without any need for
>planning permission.
>
>Only ever had one visit from the planning officer, I told him all my
>antennas are further than 2m's from my boarder and are all temporary and do
>not require permission ... "so go away". And he did. That was over two years
>ago.
>Not heard a single peep out of him since.

Keen-ness to enforce the UK national planning regulations varies a lot between one local authority and the next. (This is a UK-only topic, folks.)

I've heard stories from different parts of the UK, ranging all the way from the amazingly easy-going - "Put up what you like, and if anyone complains, then we'll have to give you retrospective permission" - all the way through to the totally over-zealous little Hitlers.

The best approach is to make an appointment to go along to the local planning office for an informal chat. Starting right from the initial

phone call, it is absolutely vital to emphasise that the antenna is for amateur radio, and not mobile phones or any other commercial purpose... if at any stage you have the slightest suspicion that they might not have grasped that fact, say it over and over again until they do!

Take along some rough sketches of what you're proposing, drawn on full-page printouts of digital photographs. These are not enough for a formal planning application, but it gives the Planning Officers the best possible idea of what they're dealing with. They are particularly interested in questions like whether the antenna/mast goes above the existing roof-line, and if so by how much. Try to include a mock-up picture of what it will look like from the road, and also from the neighbours' viewpoint (take a picture from a neighbour's garden if you can, and draw on that).

In my particular case, the proposal was for a 35ft telescopic mast mounted on the back wall of the house, with VHF yagis which would only be above roof level when cranked up. I took along four pictures: simulated front and back views with the antenna cranked up; and the same cranked down.

The Planning Officer responsible for our local area produced a big ring-binder, which seemed to be something like "How To Become A Planning Officer In 24 Monthly Parts." I would imagine it is a standard guide for local authorities. One of the chapters was about amateur antennas, and included examples of applications that had been passed, either at once or after an appeal... and some of those looked pretty enormous, which put my modest proposals nicely into perspective.

To cut a long story short, he was persuaded that the proposal was too small to require an application for Planning Permission. They do have the power to make such decisions, though they don't exactly advertise that fact. The magic words you're looking for are "de minimis"... and if you're sucessful in getting them to decide that, be sure to have it confirmed in writing!

If that won't work, then you will have to make a formal application for Planning Permission. It isn't difficult, but there are a few special traps to beware of, such as not specifying the type of antenna in too much detail because you will no doubt want to change them. A comprehensive guide is downloadable from the members-only section of the RSGB website, and the RSGB has a team of people around the country who can help you through the process.

The key is to do the whole thing at the lowest and least confrontational level possible... while at the same time showing that you know you're going to win.

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

# 3923. Re: New Call

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-20 18:05:45 UTC
From: microwaves@blueyonder.co.uk
Message-ID: <41c81429.84884537@news.blueyonder.co.uk>
Source record: 85019

On Mon, 20 Dec 2004 15:54:21 +0000 (UTC), "Simon Smith"
<s.Smith@btinternet.com> wrote:

>I posted a message a couple of weeks ago regarding my successful completion
>of the Foundation Course and a pass in the exam.
>Thank you all for all your congratulations and kind words of advice.
>I am now happy to say shat I have been issued with a call sign - so the next
>step will be to choose a radio - apply for planning permission for an
>antenna- get it installed if the application successful, and I'm away. In
>the meantime I'm busy reading up on the "Intermediate" course.
>Season's Greetings from Cornwall
>
> M3IIV
>
>John
>

I look forward to our first QSO John ... and dont worry (bother)
about planning permission :-)

73
Peter, G3PHO

# 3924. Re: H.F Dish Antenna update

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-20 18:12:07 UTC
From: art <aunwin@insightbb.com>
Message-ID: <1103566327.929500.162990@z14g2000cwz.googlegroups.com>
Source record: 85021

Roy
After I mused a while on your post I then accepted it for the
unbiased
analysis that it was rather than a desired reflection of my own
thoughts.
It then drove me to consider chosing gain as the main criteria, after
all my interests
are talking to my mates in the U.K., but at the same time carrying on
with my main thought of moving away from the long boom analogy and its
accompanying gain aproach.
By adding a mast of 30 feet to accommodate additional elements rather
than extending boom length I was able to narrow the beam width to some
where in the 57 degree region but my excellent F/B that I obtained
earlier went way down. This was done by constructing elements in "V"
form with no restriction on alignment with respect to the driven
element other than the center of the elements must be close to the mast
i.e
to take advantage of low torque requirements.
With six elements on the 30 foot mast on the tower not only did the
gain increase
to 16 dbi ( others please take note of prior posts on this thread) but
the 'take off angle'
dropped to pretty close to !0 degrees ! This aproach for somebody who
wants to work DX seems a good way to go.
I now intend to pursue the aproach of letting the elements deviate
from the "V" shape to what I expect to be a parabolic shape, to
determine whether the extra work is worth while, as well as the
"ommission" of the most upper most element for when heavy static
occurrs.
What I really do find interesting is that one CAN get away from the
boom length aproach when seeking gain as well as obtaining a reasonable
impedance.
I also intend to attempt a tri band aproach as I move along, which may
take a while as my program has provision for a limited number variable
dimensions to optimize at one time and the number of dimensions in the
next model will certainly exceed 40 at a minimum, thus modelling cannot
be achieved in a single shot.
My present model, which moves me towards gain, seems to exceed what
performance I can expect compared to high F/B and is certainly opening
fresh avenues as to what type of antenna I will construct after the new
year.

Comments solicited from all.....
and happy hollidays

Art

# 3925. Re: Amateur Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-20 18:42:00 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cq76do$hbk$1@sparta.btinternet.com>
Source record: 84922

The original English word for "Antenna" is "Aerial".

But USA citizens who imagined, as is quite normal for USA citizens, they had invented such devices, they then had to invent another naming-word in support of their claims.

But we forgive such immature pranks. It's only human nature, after all, to play such games. ;o)

A MERRY XMAS to all readers.

==========

"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:41c2fa30$1_3@127.0.0.1...
> Goetz wrote:
> > Sorry and I thought my command of English was good.
> > Thank you for correcting me.
>
> My Merriam-Webster's 10th edition Collegiate Dictionary
> makes absolutely no distinction between "antennas" and
> "antennae". Those two plurals are interchangeable in
> American English whether one is talking about insect
> or radio antennas.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>
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==----------
> http://www.newsfeed.com The #1 Newsgroup Service in the World!
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# 3926. dc grounding on 25ft trap vertical ant 10m-80m

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-20 18:42:02 UTC
From: DAVID BROWNE <david.browne7@ntlworld.com>
Message-ID: <_1Fxd.1622$3f1.699@newsfe6-win.ntli.net>
Source record: 84923

hi i have this ant and it dose not have dc grounding from ant to ground will
it help clear static if i was to fit a dc ground, i have run ground to
ground of ant, if dc ground will help , what inductor can i use or can i
make coil
thanks dave browne 2e0dmb

# 3927. Re: Antenna help needed - Thank you

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-20 18:48:38 UTC
From: N7ZZT - Eric Oyen <n7zzt@127.0.0.1>
Message-ID: <98Fxd.57047$DC.19679@fed1read03>
Source record: 84924

ml wrote:

>
> it's it against fcc regs' to work any 'skip' on cb/11meters ??
read part 95. its right there in black & white.
the key phrase is maximum allowed range of "150 miles". thats it.

working skip there violates part 95 (however, when those regs were written,
the politicians didn't consult the science types and never knew about the
"skip" conditions that occur during increased solar activity).
--
DE N7ZZT
Eric Oyen
Phoenix, Arizona
e-mail: n7zzt(at)hotmail(dot)com
the difference between intelligence and stupidity is that intelligence
has its limits.

# 3928. Re: Amateur Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-20 19:01:28 UTC
From: Jack Painter <223bthp@cox.net>
Message-ID: <ckFxd.13030$7p.12774@lakeread02>
Source record: 84925

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote
> The original English word for "Antenna" is "Aerial".
>
> But USA citizens who imagined, as is quite normal for USA citizens, they
had
> invented such devices, they then had to invent another naming-word in
> support of their claims.
>
> But we forgive such immature pranks. It's only human nature, after all, to
> play such games. ;o)
>
> A MERRY XMAS to all readers.

Merry Christmas to you too Reg.

On inventing, it's not an imagination of the ingenuity that the rest of the world is obviously jealous about. Or you are at any rate. If American engineers and scientists didn't invent something, we improved on it. Probably responsible for more of the ideas, designs and patents that made the industrial revolution "a revolution" than all other countries combined. But of course that doesn't rub some folks well, especially if they are from countries that always know better than anything America does. Historically, these experts have made little of anything better, especially not aerials, which is a rather foolish word at that. It describes anything aloft, which for some brits may have been their imaginations more than their antennas. ;-)

Jack

# 3929. Loop vx Folded Dipole noise factor

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-20 19:57:42 UTC
From: Ed <Huckleberry_REMOVE_@bigvalley.net>
Message-ID: <Xns95C579BDD28C3spectrumhogstarbandn@207.106.93.175>
Source record: 84926

Does a folded dipole antenna have the same low noise characteristics as
a loop antenna?

Ed K7AAT

# 3930. Re: 4:1 coaxial baluns

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-20 20:22:28 UTC
From: Zack <zlau@arrl.org>
Message-ID: <1103574148.806275.122590@f14g2000cwb.googlegroups.com>
Source record: 84927

Zack wrote:
> Bob Bob wrote:
>
> > If I use a 4:1 coaxial balun cut for 20M, does the 4:1 effect (now
a
> > full wavelength) also occur on 10M?
>
> It works on the odd harmonics, not the even--I published a computer

"It" refers to the balun, not the antenna. The balun works on odd, but not even harmonics. Anyone have a simple explanation for explaining whether something will work on harmonics or not? For instance, how do you explain that a 40M bugcatcher won't exhibit a 15m resonance?

Zack Lau W1VT

> model of a 2M/70cm balun in the January 2000 QEX RF column. However,
> as the coax multiple goes up, the phase change also goes up, compared
> to a shorter balun, making long baluns impractical.
>
> 73--Zack W1VT
>
> Reprints of the article are available for a nominal charge from the
> ARRL.
>
> > (Thinking a 3/4 wavelength Q section is the same as a 1/4
wavelength
> one
> > when it comes to translating the Z)
> >
> > I am not and will not be using a tuner... (in case anyone wants to
> > suggest it)
> >
> > TIA Bob VK2YQA

# 3931. Re: Amateur Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-20 20:31:35 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <inaes05luhvstg0p0ve14hldkc3qvcjvgc@4ax.com>
Source record: 84928

On Mon, 20 Dec 2004 18:42:00 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>The original English word for "Antenna" is "Aerial".

Hi Reggie,

The Oxford English Dictionary reveals that both terms came into
identical (RF) usage in the same year: 1902...
>But USA citizens who imagined, as is quite normal for USA citizens, they had
>invented such devices, they then had to invent another naming-word in
>support of their claims.
... and the OED goes on to reveal that no such association to USA
naming-word (curious Brit invention in that term) was made. This
archaic artifact of language (naming-word construction) has its roots
in "Cï¿½dmon's Hymn" written in the 6th Century. Such twinnings were
often found with such examples as whale's-road (meaning the sea).

When we step back to the global English perspective (there are far
more English literates and speakers in India than England), it becomes
obvious that aerials (which means "of the air") is an archaic
affectation. One may even note the curious spelling that begs another
affectation towards ï¿½rial (which would be incorrect and lead many to
the wrong pronunciation).

Old son, I enjoy such affectations, but reflect on how often you
struggle trying to understand English - take comfort in that you are
not alone. ;o)

73's
Richard Clark, KB7QHC

# 3932. Re: 4:1 coaxial baluns

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-20 20:49:28 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <gbees0ho0bco2p9c78verkj21jucp63m36@4ax.com>
Source record: 84929

On 20 Dec 2004 12:22:28 -0800, "Zack" <zlau@arrl.org> wrote:

>For instance, how do
>you explain that a 40M bugcatcher won't exhibit a 15m resonance?

Hi Zack,

If so, it merely offers that across frequency, the same Parts do not
add to the same Whole.

73's
Richard Clark, KB7QHC

# 3933. Re: Loop vx Folded Dipole noise factor

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-20 20:56:12 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <jiees09dclm0qmlud89fmbbb741849hf4l@4ax.com>
Source record: 84930

On Mon, 20 Dec 2004 19:57:42 GMT, Ed
<Huckleberry_REMOVE_@bigvalley.net> wrote:
> Does a folded dipole antenna have the same low noise characteristics as
>a loop antenna?

Hi Ed,

Yup, the same as a standard Dipole.

If what you are saying about "low noise" is from charge accumulation
(snow, rain, dust....) then the DC short helps in comparison to the
standard Dipole. However this is simply remedied with a large
resistor (1 KOhm) or choke across the feed point of the standard
Dipole.

73's
Richard Clark, KB7QHC

# 3934. Re: Antenna help needed - Thank you

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-20 20:56:23 UTC
From: W4JLE <W4jle@w4jle.com>
Message-ID: <Z%Gxd.41$v_.36@fe61.usenetserver.com>
Source record: 84931

For the humor challenged: It's a JOKE... Jheeez!

My sincere apologies if I twisted any one's panties...

"ml" <m@dti.net> wrote in message
news:m-D030D1.06211620122004@news.verizon.net...
>
> it's it against fcc regs' to work any 'skip' on cb/11meters ??
>
> In article <C24xd.196$VQ2.158@fe39.usenetserver.com>,
> "W4JLE" <W4jle@w4jle.com> wrote:
>
> > Fifty years ago, with a new general ticket in hand, I strung the longest
> > piece of wire I could find out the window and around the yard. My hands
> > trembled as I switched on the Lysco 600 and HQ 129X. I had already
memorized
> > the pertinent sections of the eight page manual and fired up the rig on
> > 3885. Disregarding the RF burns to the lip, I called CQ and was rewarded
> > with a response from W8DXL in Willowick, Ohio. John and I talked until
the
> > blisters on my lip became too painful to continue. Wow! I was a ham.
> >
> >
> >
> > I made many contacts after that, moving the antenna around to diminish
the
> > burns. Far away places like New Zealand, Australia, and European
countries
> > were scrawled into the FCC mandated logbook.
> >
> >
> >
> > A number of years past before I had my very own SWR meter. With the
meter in
> > hand I soon realized how bad my antenna was. The DX-100 had been lying
to me
> > the whole time. It claimed it was happy loading the poor excuse for an
> > antenna it had been presented. My logbook mocked me with how lucky I was
to
> > be approaching one hundred countries considering my profound ignorance.
> >
> >
> >
> > We soon had an antenna that was nearly one to one on my favorite
operating

> > frequency. The upside is my lips soon healed, but I spent so much time
with
> > the antenna I missed all the band openings. My neighbor down the road
said
> > it sounded good. Shortly, there after, I was informed that SWR didn't
mean a
> > thing. "A dummy load is always one to one" retorted the local guru.
> >
> >
> >
> > I wandered in darkness until Al Gore invented the internet. Now I had
access
> > to all the super gurus that I had only read about in QST, I jumped on
the
> > Antenna conference and asked the following "How can I make my antenna
> > better". In short order answers started flowing in! How ever with each
> > answer, another guru jumped in with an opinion that was at variance with
the
> > first one. My match apparently was not conjunctive, the current was
either
> > the same or different through my loading coil, it was at the wrong
height, I
> > needed to get an antenna analyzer, my feedline was the wrong length, I
didn'
> > t have the proper number of fractal bends etc. etc.
> >
> >
> >
> > To shorten a long story, I haven't made a contact in three years. EZNEC
> > confirms my antenna would never work under the best of conditions
> > being -6dBLB (referenced to a light bulb).
> >
> >
> >
> > And then I discovered CB radio! The physics are entirely different on
> > eleven meters. I can change my SWR's by cutting my coax, co-phase my
> > antennas and magical things beyond description. I have made over thirty
> > "skip contacts" on my first day bare foot. Today I learned about a
device
> > called a "LinYAR" that will let me talk even further. Seems that all you
> > need is a bunch of pills and everyone hears you. Try that on Ham radio!
> >
> >
> >
> > Just wanted to say 3's and 8's to all that have attempted to help me
make my
> > antenna better, I asked the same question on the CB forum and am now
running
> > co-phased nine element moonrakers up 150 feet and everyone says I am
"tree

> > top tall"!
> >
> >
> >
> > Merry Christmas and Happy New Year from W4JLE

# 3935. Re: Antenna Tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-20 21:14:38 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10seg64uiuu347@corp.supernews.com>
Source record: 84932

Yes, moving a current balun to a position before the tuner is a "useless" exercise but it doesn't render the balun "useless" -- it's equally effective at the input as at the output (provided that the tuner case is floated if the balun is at the input).

To answer your question about why not use one at the input and output, I recommend against using one at the input because the case of the tuner has to be floated for one at the tuner input to be effective. This has some potential safety implications. If you want to use two baluns in order to increase the common mode impedance, I suggest putting them both at the output. And for maximum effectiveness, space them about a quarter wavelength apart at the most troublesome band.

Roy Lewallen, W7EL

Cecil Moore wrote:
> Jack Painter wrote:
>
>> 6. Conclusions
>> As noted by Roy Lewallen, W7EL,[2] putting a choke balun on the input
>> of an
>> unbalanced tuner to drive a balanced line is useless.
>
>
> The choke on the input is *still* in series with the common-mode
> current and is still performing the choking function. Moving the
> balun to the input doesn't relieve the stress on the choke but it
> also does NOT render the choke non-functional as the word "useless"
> implies.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
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# 3936. Re: H.F Dish Antenna update

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-20 21:21:28 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10segiscvpnls88@corp.supernews.com>
Source record: 84933

Cecil Moore wrote:
>
> Dave, Your 2+ dBi gain is for a dipole in free space Vs an isotropic in
> free space. Roy chose to compare the dipole over perfect ground to the
> isotropic in free space. The ~3dB of reflections from the perfect ground
> cause the additional gain due to constructive interference.

Art chose to compare his antenna to an isotropic antenna in free space
-- he reported the gain in dBi. So I compared a dipole at the same
height to an isotropic antenna in free space. This combination allows
comparison of Art's antenna in its position over ground to a dipole at
the same height above ground.

Roy Lewallen, W7EL

# 3937. Newbie antenna help

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-20 21:22:02 UTC
From: stryped@hotmail.com
Message-ID: <1103577722.434508.43940@f14g2000cwb.googlegroups.com>
Source record: 84934

New to ham radio. Interested in building an antenna for a base station. I dont have anything yet, just in the planning stage.

Thought about buying a handheld and using that as part of my "base station" one maybe capable of 2 440 and 6. These seem cheaper used than the home units.

My question is, is there information out there on how to build one? I have a radio shack book at home that has a plan for a 440. It uses aluminum ground wire. What I find when working with this stuff is it is impossible to make it perfectlyu straight. Doesn't that effect the performance? I mean it comes coiled and when I cut it to length I cant get it perfectly straight.

Also, it is posisble to have good performance with one antenna for all the bands? Or is it absolutely necessary to have one antenna for each band? I have limited room.

I appreciate your help!

## 3938. Re: Radiation angle vs turns count in a coil

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-20 21:35:31 UTC
From: K7ITM <k7itm@aol.com>
Message-ID: <1103578531.325761.47000@z14g2000cwz.googlegroups.com>
Source record: 84935

One other explanation...he knows full well it doesn't make a bit of difference and was just testing to see if anyone would bite. (Does he sell speaker cables on the side?)

Cheers,
Tom

## 3939. Re: Ladder line in a rotor loop?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-20 21:37:34 UTC
From: jgboyles@aol.com
Message-ID: <20041220163734.21770.00002167@mb-m14.aol.com>
Source record: 84937

>Any thoughts on ladder line in a rotor loop? Thought is to use ladder
>line to feed a rotating dipole and tune it in the shack.

Should work fine, you only have to rotate a dipole 180 degrees so the loop can
be easily managed.
73 Gary N4AST

# 3940. Re: H.F Dish Antenna update

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-20 21:41:02 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10sehnjcbghpo6c@corp.supernews.com>
Source record: 84936

The elevation angle at which radiation is maximum (the "takeoff angle") can be influenced by narrowing the free-space elevation pattern of the antenna. A Yagi provides considerable directivity in the horizontal direction, but not very much in the vertical direction. The elevation pattern of the forward lobe of a Yagi doesn't look much different from the elevation pattern of a dipole. Therefore, the elevation patterns of a Yagi and dipole are very similar (except for very long Yagis, which do begin to have some noticeable directivity in the elevation pattern). One consequence of this similarity is that the gain of a Yagi over a dipole in free space is about the same as the gain of a Yagi over a dipole at any elevation angle when the two are mounted at the same height -- a single number is adequate to describe the gain of a Yagi over a dipole, no matter where the two are mounted (as long as they're at the same height).

There are some antennas that do compress the vertical pattern. One notable antenna in this category is the W8JK. The result is that the "takeoff angle" is lower for the W8JK than for a dipole at the same height, and the gain of a W8JK compared to a dipole is different at different elevation angles. I haven't looked at one in a long time, but believe the "Lazy H" antenna also compresses the vertical pattern somewhat, resulting in a lower "takeoff angle" than a dipole when mounted over ground.

It's not too surprising that Art's antenna has the ability to compress the vertical pattern somewhat, for the same general effect as the W8JK, due to its physical geometry. This general characteristic of a lower "takeoff angle" can be an advantage for working DX, so it might make the constructional difficulties worthwhile for some people. The reduction in F/B when maximizing gain also isn't surprising. I don't believe there's any fundamental reason for this to always happen, but it's all too often the case. Most arrays, both parasitic and driven, have relatively poor F/B when adjusted for maximum gain. It becomes up to the user to decide on the optimum tradeoff for his particular application.

Roy Lewallen, W7EL

art wrote:
> Roy
> After I mused a while on your post I then accepted it for the
> unbiased
> analysis that it was rather than a desired reflection of my own
> thoughts.
> It then drove me to consider chosing gain as the main criteria, after
> all my interests
> are talking to my mates in the U.K., but at the same time carrying on

> with my main thought of moving away from the long boom analogy and its
> accompanying gain aproach.
> By adding a mast of 30 feet to accommodate additional elements rather
> than extending boom length I was able to narrow the beam width to some
> where in the 57 degree region but my excellent F/B that I obtained
> earlier went way down. This was done by constructing elements in "V"
> form with no restriction on alignment with respect to the driven
> element other than the center of the elements must be close to the mast
> i.e
> to take advantage of low torque requirements.
> With six elements on the 30 foot mast on the tower not only did the
> gain increase
> to 16 dbi ( others please take note of prior posts on this thread) but
> the 'take off angle'
> dropped to pretty close to !0 degrees ! This aproach for somebody who
> wants to work DX seems a good way to go.
> I now intend to pursue the aproach of letting the elements deviate
> from the "V" shape to what I expect to be a parabolic shape, to
> determine whether the extra work is worth while, as well as the
> "ommission" of the most upper most element for when heavy static
> occurrs.
> What I really do find interesting is that one CAN get away from the
> boom length aproach when seeking gain as well as obtaining a reasonable
> impedance.
> I also intend to attempt a tri band aproach as I move along, which may
> take a while as my program has provision for a limited number variable
> dimensions to optimize at one time and the number of dimensions in the
> next model will certainly exceed 40 at a minimum, thus modelling cannot
> be achieved in a single shot.
> My present model, which moves me towards gain, seems to exceed what
> performance I can expect compared to high F/B and is certainly opening
> fresh avenues as to what type of antenna I will construct after the new
> year.
>
> Comments solicited from all........
> and happy hollidays
>
> Art
>

# 3941. Re: Antennae of Yesteryear

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-20 21:44:29 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41c747dd$1_2@127.0.0.1>
Source record: 84938

Peter wrote:
> Cecil Moore <w5dxp@hotmail.com> wrote:
>>How about a decent AM antenna with an IC-706?
>
> Reminds about the leg pull ...

No leg pull intended. My IC-706 and ClearSpeech speaker work
unbelievably well on AM talk radio which is what I listen to
on AM. My home town has extremely noisy power lines. The
ClearSpeech speaker takes that all out.
--
73, Cecil http://www.qsl.net/w5dxp

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# 3942. Re: 4:1 coaxial baluns

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-20 21:54:06 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41c74a1d$1_2@127.0.0.1>
Source record: 84939

Zack wrote:
> For instance, how do
> you explain that a 40M bugcatcher won't exhibit a 15m resonance?

Because one runs into self-resonance long before 3x the frequency?
--
73, Cecil http://www.qsl.net/w5dxp

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# 3943. Re: Loop vx Folded Dipole noise factor

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-20 21:56:26 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41c74aa9$1_2@127.0.0.1>
Source record: 84940

Richard Clark wrote:

> <Huckleberry_REMOVE_@bigvalley.net> wrote:
>> Does a folded dipole antenna have the same low noise characteristics as
>>a loop antenna?
>
> Yup, the same as a standard Dipole.

Assume you meant: "the same as a standard loop."?

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# 3944. Re: 4:1 coaxial baluns

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-20 22:01:00 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10seit1gnq24qe6@corp.supernews.com>
Source record: 84941

An antenna or transmission line has resonances at (or near) odd harmonics. But a lumped LC circuit doesn't. A bugcatcher is a combination of the two. I'd think it likely that it has multiple resonances, but not at harmonically related frequencies.

If you want a rule of thumb, don't look for harmonically related resonances in any antenna containing a significant amount of lumped L or C, or L and C distributed over a relatively small distance.

Roy Lewallen, W7EL

Zack wrote:
>
> "It" refers to the balun, not the antenna. The balun works on odd, but
> not even harmonics. Anyone have a simple explanation for explaining
> whether something will work on harmonics or not? For instance, how do
> you explain that a 40M bugcatcher won't exhibit a 15m resonance?
>
> Zack Lau W1VT
>

# 3945. Re: Newbie antenna help

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-20 22:04:10 UTC
From: Dee Flint <deeflint01@comcast.net>
Message-ID: <8I-dncrjyJvE0VrcRVn-2Q@comcast.com>
Source record: 84942

<stryped@hotmail.com> wrote in message
news:1103577722.434508.43940@f14g2000cwb.googlegroups.com...
> New to ham radio. Interested in building an antenna for a base station.
> I dont have anything yet, just in the planning stage.
>
>
> Thought about buying a handheld and using that as part of my "base
> station" one maybe capable of 2 440 and 6. These seem cheaper used than
> the home units.
>

Yes the handhelds are cheaper but they have a lot less power. However if
your antenna is high enough, you can do amazing things with it.

>
> My question is, is there information out there on how to build one? I
> have a radio shack book at home that has a plan for a 440. It uses
> aluminum ground wire. What I find when working with this stuff is it is
> impossible to make it perfectlyu straight. Doesn't that effect the
> performance? I mean it comes coiled and when I cut it to length I cant
> get it perfectly straight.
>

It doesn't have to be perfectly straight. You won't notice any difference
unless you have loops coiled in it.

>
> Also, it is posisble to have good performance with one antenna for all
> the bands? Or is it absolutely necessary to have one antenna for each
> band? I have limited room.
>

Yes there are multiband antennas. Basically, they use some type of coil or
trap to subdivide the antenna. The full length of the antenna is used for
the lowest frequency, etc.

Dee D. Flint, N8UZE

# 3946. Re: Antenna Tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-20 22:04:52 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41c74ca3$1_4@127.0.0.1>
Source record: 84943

Roy Lewallen wrote:
> To answer your question about why not use one at the input and output, I
> recommend against using one at the input because the case of the tuner
> has to be floated for one at the tuner input to be effective.

Sorry, that's NOT true for remote autotuners. When I was remote autotuning
my elevated-radial vertical, the autotuner was 20 feet from the antenna and
65 feet from the shack. Field strength improved the most with chokes on the
input AND output.
--
73, Cecil http://www.qsl.net/w5dxp

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# 3947. Re: Loop vx Folded Dipole noise factor

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-20 22:25:43 UTC
From: Ed <Huckleberry_REMOVE_@bigvalley.net>
Message-ID: <Xns95C592D6471F0spectrumhogstarbandn@207.106.93.175>
Source record: 84944

>>> Does a folded dipole antenna have the same low noise
>>> characteristics as
>>>a loop antenna?

>> Yup, the same as a standard Dipole.

> Assume you meant: "the same as a standard loop."?

Yes, I hope that he meant "loop" instead of "dipole" . I still would
like to hear from others on this, too. I am re-considering my planned
installation of a loop now, in favor of the tactically easier to install
folded dipole, if I can maintain that low noise charactistic.

Ed K7AAT

Ed

# 3948. Re: Loop vx Folded Dipole noise factor

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-20 22:41:45 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <8jkes09jo0seb0589s51phvm4ub08fo3ji@4ax.com>
Source record: 84945

On Mon, 20 Dec 2004 22:25:43 GMT, Ed
<Huckleberry_REMOVE_@bigvalley.net> wrote:

>Yes, I hope that he meant "loop" instead of "dipole"

Hi Ed,

Aside from the charged particles introducing noise, there is no
difference. If charged particles is the noise, then I offered a
solution that reduces the issue of antennas to: no difference.

If it relates to corona discharge, then you may have to ask yourself,
what about the difference between corner fed and center fed loops
(this made a huge difference to HCJB in Quito).

Just tossing out the term "low noise" is in itself a reliance on hopes
and wishes to sort out what the noise is. This is because forcing the
discussion into more context invariably reveals the old nostrum of
magnetic antennas being immune from electrical noise. Then we get
into all sorts of equivocation which in the wash inevitably reduces
to: no difference.

73's
Richard Clark, KB7QHC

# 3949. Re: Loop vx Folded Dipole noise factor

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-20 22:50:26 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41c75751$1_1@127.0.0.1>
Source record: 84946

Ed wrote:
>>>> Does a folded dipole antenna have the same low noise
>>>> characteristics as
>>>>a loop antenna?
>
>>>Yup, the same as a standard Dipole.
>
>>Assume you meant: "the same as a standard loop."?
>
> Yes, I hope that he meant "loop" instead of "dipole" . I still would
> like to hear from others on this, too. I am re-considering my planned
> installation of a loop now, in favor of the tactically easier to install
> folded dipole, if I can maintain that low noise charactistic.

You can get the same effect with a dipole by installing a toroidal
inductance (RF choke) across the feedpoint or (surprise) by using a 4:1
voltage balun. Back when I didn't know any better, I used a 4:1 voltage
balun and it was quiet but ineffective as a balun on some bands. Things
got noisier when I switched to a 1:1 choke. An RF choke solved the
problem.
--
73, Cecil http://www.qsl.net/w5dxp

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# 3950. Re: Loop vx Folded Dipole noise factor

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-20 23:01:58 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41c75a05$1_1@127.0.0.1>
Source record: 84947

Richard Clark wrote:

> <Huckleberry_REMOVE_@bigvalley.net> wrote:
>>Yes, I hope that he meant "loop" instead of "dipole"
>
> Aside from the charged particles introducing noise, there is no
> difference.

Point is that a loop reduces that "noise" where a dipole allows the
"noise" to build up until it arcs across the coax connector which
causes an extreme amount of "noise". One night in AZ, my PL-239
connected to my IC-745 was arcing so loud that it woke me up. I
disconnected it and tossed it on the floor. A few minutes later,
the carpet was smoking.

Aside from the arcing waking me up and the burning of the carpet,
there was no difference.
--
73, Cecil http://www.qsl.net/w5dxp

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## 3951. Re: Ladder line in a rotor loop?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-20 23:36:50 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <mmJxd.1392$Y8.435@newssvr17.news.prodigy.com>
Source record: 84948

Is it possible? Sure, ought to work just fine. [Gary, make
that 90 degrees for full 360 degree coverage - :)]
'Doc

# 3952. Re: H.F Dish Antenna update

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-21 00:31:35 UTC
From: art <aunwin@insightbb.com>
Message-ID: <1103589095.213570.121070@z14g2000cwz.googlegroups.com>
Source record: 84949

Roy,
Thanks for the pertinent points raised in your post.
I might add that since the element centers are close to the mast
I have avoided the installation of a boom at the top of the mast
as one would do to lower the take off angle by the use of a stacked
beam. This 'top beam' provides major instability when using a single
mast. With me using my normal fishing pole elements the arrangement
will help quite a bit in mast mechanical terms. Since it is element
height over the feed element that, in the main, is creating a
compressed lobe (as I believe your post infers) I will take a different
tac with respect to the driven element, where it will be the only
element shaped in parabolic form and all others will
remain in a "V" configuration( straight portion for clamping at the
center). The parabolic shaped driver would then hopefully allow the
addition of staggered elements for other bands. The mast used will be
a 2 inch diameter fibre glass to prevent vertical radiation mutations.
Regards
Art

# 3953. Re: Loop vx Folded Dipole noise factor

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-21 01:33:15 UTC
From: Crazy George <muNnscOh@attSglPobaAl.nMet>
Message-ID: <41c78056_1@news1.prserv.net>
Source record: 84950

Ed:

You got some interesting discussion, but I wonder if any actually heard the question. Unfortunately, the question is
incomplete, and this often leads to answers to questions you never asked. What particular kind of noise do you
characterize?

Loops respond to magnetic fields, and dipoles respond to electric fields. So what, you ask? Well, if the noise you are
concerned with is locally generated RFI stuff, and you are within the near field, the shielded loop often provides
better signal to noise ratio on distant signals because of some fundamental characteristics of near electromagnetic
fields. Which Roy or Reg or a lot of others can explain a lot more lucidly than I can. Other slightly further away
noise is likely to be vertically polarized, again due to the propagation characteristics of surface waves, and any
antenna which is more sensitive to horizontal polarization and less to vertical can exhibit batter S/N on distant
signals. If, on the other hand, you are trying to receive weak local signals in the presence of strong distant noise,
well, then the reverse tends to be true. The point? No specific one answer fits all cases. If it did, there would be
only one kind of antenna.

--
Crazy George
Remove N O and S P A M imbedded in return address
"Ed" <Huckleberry_REMOVE_@bigvalley.net> wrote in message
news:Xns95C579BDD28C3spectrumhogstarbandn@207.106.93.175...
>
>
> Does a folded dipole antenna have the same low noise characteristics as
> a loop antenna?
>
>
>
> Ed K7AAT

# 3954. Re: What is a good Screwdriver Antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-21 02:43:13 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <10sf3eeeaun9i4c@corp.supernews.com>
Source record: 84951

Scott;

Thanks for the remarks about your installation. I have not given up hope for my Plus just yet. I think our problem with the receiver hitch installation is the mass of metal on the back of the vehicles. My hatchback and your tailgate. The manual does state that we should keep the antenna as far from large surfaces of metal parallel to the antenna. I am going to try using a mast to elevate the antennas above the top of the van and see what happens.

Dave WD9BDZ

Scott wrote:

> I have a Perth Plus (Outbacker) and I think the antenna works wonderful.
> However, I do know from experience that installation location seems to
> be critical. I used to have it mounted on a ladder rack on an Astro van
> with its ground wire attached directly to the roof with a small bolt and
> nut. Worked GREAT! Now it's on my F-150 on a mount I made up that goes
> into my receiver hitch. I ran a 1" wide ground strap from the truck
> frame up to the top of the mount, where I attached the antennas ground
> wire to. Now the tuning of the whip is way off from the marks and I can
> only get it tuned on 75M through about 17M. Works great when tuned on
> these bands, but someday I'll miss 15M-10M...
>
> Scott
> N0EDV
>
>
> David G. Nagel wrote:
>
>> Shadow 998 wrote:
>>
>>> Hello All, I'm looking at installing my 706 G in the truck for HF
>>> use and
>>> am looking for suggestions as to which screwdriver antenna (or
>>> other?) you
>>> would recommend.
>>>
>>> It will go on a small truck.
>>>
>>> Thanks!
>>>
>>> Russ
>>> KG6TDX

>>>
>>>
>> Russ;
>>
>> I had a High Sierra Pro installed on my Honda Element. It seemed to do
>> a good job until it was the target of an automobile bumper. The
>> antenna survived in fairly good condition. The tip of the whip was
>> bent slightly due to whipping around in the impact. The barrel of the
>> lower unit was slightly damaged but not broken. The plastic weather
>> protection tube was broken at the top where the cap is screwed into
>> it. The only other damage was to the mounting bracket. I used a
>> tiltout mounting bracket on a receiver hitch to hold everything on the
>> car. The bottom of the hinge bracket snapped off at the hitch mount.
>> I have repaired everything and the antenna seems to be working great.
>> I can't speak more highly about this antenna.
>> For range all I can report is making contacts from St. Louis to
>> Indianapolis. I was vertically polarized and the other station was NVIS.
>> The rig is an Icom 706MKIIG.
>> I also am using an Outbacker Perth Plus but I am not really satisfied
>> with it. It could be the fault of the installation, I really don't know.
>>
>>
>> Dave Nagel WD9BDZ

# 3955. Re: Loop vx Folded Dipole noise factor

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-21 02:45:41 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10sf3iq6maemp0e@corp.supernews.com>
Source record: 84952

Crazy George wrote:
> . . .
> Loops respond to magnetic fields, and dipoles respond to electric fields. . .

That's not at all true. Both kinds of antennas respond to both electric and magnetic fields.

An *electrically small* loop responds more strongly to a magnetic than an electric field only if the source of the field is much closer than a wavelength. Likewise, an *electrically small* dipole responds more strongly to an electric than a magnetic field only if the source of the field is much closer than a wavelength. At some distance from the source still less than a wavelength, they actually reverse -- the short dipole responds more strongly to a magnetic field than a small loop, and the small loop responds more strongly to an electric field than a short dipole.

The response of electrically large (on the order of a half wavelength and larger) dipoles and loops to electric and magnetic fields depends on the direction and distance to the source. No single rule of thumb can be used when the source is very close to anything but an electrically small antenna. The relative responses of *all* antennas to electric and magnetic fields are essentially the same as each other if the source is a fair fraction of a wavelength away (i.e., the antenna is in the far field of the source).

Roy Lewallen, W7EL

# 3956. Re: Ladder line in a rotor loop?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-21 03:22:05 UTC
From: wk0f <t_ashland@yahoo.com>
Message-ID: <1103599325.149441.151270@f14g2000cwb.googlegroups.com>
Source record: 84953

On Cebik's page regarding the 44 rotatable dipole, there is a link to this site. I think this is what you're looking for (about half way down the page).

http://www.n4ekv.com/antennas.asp

73,
Terry, WK0F

wb0gaz wrote:
> Any thoughts on ladder line in a rotor loop? Thought is to use ladder
> line to feed a rotating dipole and tune it in the shack.

# 3957. Re: Amateur Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-21 03:48:56 UTC
From: Bob Miller <rmiller47@satx.rr.com>
Message-ID: <v47fs09167gj46cr5n2g0pqg0cnq3hpg8q@4ax.com>
Source record: 84954

On Mon, 20 Dec 2004 14:01:28 -0500, "Jack Painter" <223bthp@cox.net>
wrote:

>
>"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote
>> The original English word for "Antenna" is "Aerial".
>>
>> But USA citizens who imagined, as is quite normal for USA citizens, they
>had
>> invented such devices, they then had to invent another naming-word in
>> support of their claims.
>>
>> But we forgive such immature pranks. It's only human nature, after all, to
>> play such games. ;o)
>>
>> A MERRY XMAS to all readers.
>
>Merry Christmas to you too Reg.
>
>On inventing, it's not an imagination of the ingenuity that the rest of the
>world is obviously jealous about. Or you are at any rate. If American
>engineers and scientists didn't invent something, we improved on it.
>Probably responsible for more of the ideas, designs and patents that made
>the industrial revolution "a revolution" than all other countries combined.
>But of course that doesn't rub some folks well, especially if they are from
>countries that always know better than anything America does. Historically,
>these experts have made little of anything better, especially not aerials,
>which is a rather foolish word at that. It describes anything aloft, which
>for some brits may have been their imaginations more than their antennas.
>;-)
>
>Jack
>

All of the above is true -- altho' it seems most ham equipment
nowadays comes from either the Pacific Rim or Mississippi :-)

Have a Merry...

bob
k5qwg

# 3958. Re: Antenna Tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-21 05:29:13 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10sfd5ei6a8c312@corp.supernews.com>
Source record: 84955

Hm, that's interesting. Was the tuner case floating? Did you try putting both baluns at the input or both at the output for comparison? And how much did the field strength improve and how did you measure it?

Roy Lewallen, W7EL

Cecil Moore wrote:
> Roy Lewallen wrote:
>
>> To answer your question about why not use one at the input and output,
>> I recommend against using one at the input because the case of the
>> tuner has to be floated for one at the tuner input to be effective.
>
>
> Sorry, that's NOT true for remote autotuners. When I was remote autotuning
> my elevated-radial vertical, the autotuner was 20 feet from the antenna and
> 65 feet from the shack. Field strength improved the most with chokes on the
> input AND output.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>
>
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## 3959. Re: small dipole help

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-21 05:44:21 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <SJOxd.942$zP5.836@bignews4.bellsouth.net>
Source record: 84956

"ml" <m@dti.net> wrote in message
news:m-8B67B0.20381819122004@news.verizon.net...
> hi
>
> i've been studying around trying to get info to build a small dipole and
> found 'too much' info ended up confused thought perhaps someone
> could help
>
> I am going to be traveling around , (hotels , etc) and want to build or
> buy a small as poss dipole for 40-10m.
>
> my main goal would be aside from small, to minimize giving off RFI.
>
> I am not certain in general if a trap design or not is best
>
> and rfi wise, not certain if adding a balun(1:1/4:1) is going to min any
> problems, same for ladder line vs coax
>
> (my tuner can take coax, or ladder)
>
>
> any tips/suggestions to designing a total solution would be greatly
> appreciated,, i'd like to perhaps build 1 or 2 kinds and experiment
> but got confused alot of posts seem to contradict each other
> technology wise
>

I have seen folks use 2 -or 4 toy slinkies (the metal kind)
what holds them up ? plastic trimmer line like on a weed-eater
The plastic trimmer line is threaded through the slinkies and stretched
across the room
, and the slinkies acted like a continouusly-loaded dipole
as short as you need it - and it can s-t-r-e-t-c-h a little too.

---
Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.818 / Virus Database: 556 - Release Date: 12/17/2004

# 3960. Re: Antenna Tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-21 13:20:16 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41c8232f$1_3@127.0.0.1>
Source record: 84957

Roy Lewallen wrote:
> Hm, that's interesting. Was the tuner case floating? Did you try putting
> both baluns at the input or both at the output for comparison? And how
> much did the field strength improve and how did you measure it?

The tuner case was tied to a ground rod at the base of the antenna
support. In the last version, the radials were up at 20 ft. I didn't
try it without a choke on the input but adding a choke to the output
improved the ground level field strength at ~200 yards by a little
over one dB on 40m, if memory serves me right. I can't locate my
notebook at the moment. The field strength was measured using a Palomar
FS-1 and ferrite rod pickup antenna. The choke on the output appeared to
slightly reduce the received noise which is the problem I was chasing at
the time. I never could get the received noise down to an acceptable
level compared to my horizontal dipole so the vertical is gone.
--
73, Cecil http://www.qsl.net/w5dxp

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# 3961. Re: HF Mobile for Honda Element?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-21 13:26:51 UTC
From: JD <dixon@cae.ca>
Message-ID: <cq98as$1ih$1@dns3.cae.ca>
Source record: 84958

I think it is a Yeasu ATAS120???????
nice and compact

"Henry Kolesnik" <kolesnik@sbcglobal.net> wrote in message
news:59Dwd.695$wi2.648@newssvr11.news.prodigy.com...
> Doesn't Yaesu make 2 screwdrivers for that radio that are real small and
> cover 40 on down. I've seen some on smaller cars but not on an Element.
>
> --
>
> 73
> Hank WD5JFR
> "David Snyder Hale" <david@isi.mtwilson.edu.REMOVE> wrote in message
> news:cpu1h0$1gqt$1@agate.berkeley.edu...
> > I'm looking for suggestions (preferably based on experience, but by no
> > means limited to that) for an HF mobile antenna and mount for a Honda
> > Element. Would like 10-40m. Rig is Yaesu FT-817ND.
> >
> > TNX,
> >
> > --
> > Dave * N3WTK (DM04xf) * http://isi.mtwilson.edu * n3wtk@arrl.net.REMOVE
>
>

# 3962. Re: What is a good Screwdriver Antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-21 13:36:30 UTC
From: JD <dixon@cae.ca>
Message-ID: <cq98sv$l3g$1@dns3.cae.ca>
Source record: 84960

Well thats the problem, you have it on a ford. I think you need to buy another astro Van :>) Actually I have that same kind of arrangement on my Astro using the trailer drawbar with a Iron horse 40m stick. grounded to chassis. and it works great!
JD VE3DIX

"Scott" <acepilot@bloomer.net> wrote in message news:3emdnTk2ZKV0WVvcRVn-vg@bright.net...
> I have a Perth Plus (Outbacker) and I think the antenna works wonderful.
> However, I do know from experience that installation location seems to
> be critical. I used to have it mounted on a ladder rack on an Astro van
> with its ground wire attached directly to the roof with a small bolt and
> nut. Worked GREAT! Now it's on my F-150 on a mount I made up that goes
> into my receiver hitch. I ran a 1" wide ground strap from the truck
> frame up to the top of the mount, where I attached the antennas ground
> wire to. Now the tuning of the whip is way off from the marks and I can
> only get it tuned on 75M through about 17M. Works great when tuned on
> these bands, but someday I'll miss 15M-10M...
>
> Scott
> N0EDV
>
>
> David G. Nagel wrote:
> > Shadow 998 wrote:
> >
> >> Hello All, I'm looking at installing my 706 G in the truck for HF use
> >> and
> >> am looking for suggestions as to which screwdriver antenna (or other?)
> >> you
> >> would recommend.
> >>
> >> It will go on a small truck.
> >>
> >> Thanks!
> >>
> >> Russ
> >> KG6TDX
> >>
> >>
> > Russ;
> >
> > I had a High Sierra Pro installed on my Honda Element. It seemed to do a
> > good job until it was the target of an automobile bumper. The antenna

> > survived in fairly good condition. The tip of the whip was bent slightly
> > due to whipping around in the impact. The barrel of the lower unit was
> > slightly damaged but not broken. The plastic weather protection tube was
> > broken at the top where the cap is screwed into it. The only other
> > damage was to the mounting bracket. I used a tiltout mounting bracket on
> > a receiver hitch to hold everything on the car. The bottom of the hinge
> > bracket snapped off at the hitch mount.
> > I have repaired everything and the antenna seems to be working great. I
> > can't speak more highly about this antenna.
> > For range all I can report is making contacts from St. Louis to
> > Indianapolis. I was vertically polarized and the other station was NVIS.
> > The rig is an Icom 706MKIIG.
> > I also am using an Outbacker Perth Plus but I am not really satisfied
> > with it. It could be the fault of the installation, I really don't know.
> >
> >
> > Dave Nagel WD9BDZ

# 3963. Re: My radio always fights with my toaster !!!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-21 13:39:59 UTC
From: JD <dixon@cae.ca>
Message-ID: <cq993g$sdr$1@dns3.cae.ca>
Source record: 84961

Throw out the toaster.............

"Bruno Beam" <zendo_joystick_ankh_hero@yahoo.com.br> wrote in message
news:9f63c9ae.0412182005.523bf8a1@posting.google.com...
> The two can't stand each other!
>
> What can I do?

# 3964. Re: Newbie antenna help

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-21 13:43:59 UTC
From: stryped@hotmail.com
Message-ID: <1103636639.512684.202910@c13g2000cwb.googlegroups.com>
Source record: 84959

Dee Flint wrote:
> <stryped@hotmail.com> wrote in message
> news:1103577722.434508.43940@f14g2000cwb.googlegroups.com...
> > New to ham radio. Interested in building an antenna for a base
station.
> > I dont have anything yet, just in the planning stage.
> >
> >
> > Thought about buying a handheld and using that as part of my "base
> > station" one maybe capable of 2 440 and 6. These seem cheaper used
than
> > the home units.
> >
>
> Yes the handhelds are cheaper but they have a lot less power.
However if
> your antenna is high enough, you can do amazing things with it.
>
> >
> > My question is, is there information out there on how to build one?
I
> > have a radio shack book at home that has a plan for a 440. It uses
> > aluminum ground wire. What I find when working with this stuff is
it is
> > impossible to make it perfectlyu straight. Doesn't that effect the
> > performance? I mean it comes coiled and when I cut it to length I
cant
> > get it perfectly straight.
> >
>
> It doesn't have to be perfectly straight. You won't notice any
difference
> unless you have loops coiled in it.
>
> >
> > Also, it is posisble to have good performance with one antenna for
all
> > the bands? Or is it absolutely necessary to have one antenna for
each
> > band? I have limited room.
> >
>
> Yes there are multiband antennas. Basically, they use some type of
coil or

> trap to subdivide the antenna. The full length of the antenna is
used for
> the lowest frequency, etc.
>
> Dee D. Flint, N8UZE

What would you recommend? Building a beam for two meter? If I did that would it work ok on 440 too?

Also, I have seen beams mounted bothe on it's side and upright like an outside tv antenna. Which way is better?

# 3965. Why Match ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-21 14:23:10 UTC
From: pdrunen@aol.com
Message-ID: <20041221092310.23218.00002317@mb-m03.aol.com>
Source record: 84962

Hi All,

I was reviewing a 75 to 50 ohm resistive matching network using two resistors, the insertion lost was 5.7 db.

If we have a 100Vrms source with 50 ohm source impedance and it is driving a matched 50 ohm load then the load takes 1A and the power in the load is 50 watts.

If the load is replaced with 75 ohm, then 0.8 amps will flow and the power is 48 watts. (I*I*R) == (0.8)*(0.8)*75.

I guess I must be not be taking something in account, but 2 watts does not equal 5.7 db.

I know there must be a good reason to put the matching pad in line for the sprectrum analyizer but I don't under why.

Thanks,

de KJ4UO

## 3966. Would EMT be good for antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-21 14:32:38 UTC
From: stryped@hotmail.com
Message-ID: <1103639558.139643.147670@c13g2000cwb.googlegroups.com>
Source record: 84963

I am new to ham radio and am trying to learn about antenna building. I have the capability to weld at home very thin material. Was wondering if EMT conduit would be good for making an antenna? It seems light weight and resists corrosion and is weldable.

I need somethign that will last. I will be putting it on top of my tv tower and I am afraid of heights. I only want to do this once.

# 3967. Re: Would EMT be good for antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-21 14:47:27 UTC
From: Ralph Mowery <rmowery28146@earthlink.net>
Message-ID: <3IWxd.7682$yK.5995@newsread3.news.atl.earthlink.net>
Source record: 84964

<stryped@hotmail.com> wrote in message
news:1103639558.139643.147670@c13g2000cwb.googlegroups.com...
> I am new to ham radio and am trying to learn about antenna building. I
> have the capability to weld at home very thin material. Was wondering
> if EMT conduit would be good for making an antenna? It seems light
> weight and resists corrosion and is weldable.
>
> I need somethign that will last. I will be putting it on top of my tv
> tower and I am afraid of heights. I only want to do this once.
>

If you only want to do it once then use some of the proven 6061 aluminum
tubing. Electrically the type of tubing will not make much differance, but
mechanically it will.

# 3968. Re: What is a good Screwdriver Antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-21 14:58:07 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3SWxd.3504$_X7.3205@newssvr33.news.prodigy.com>
Source record: 84965

Russ,
The biggest difference in most of the screwdriver type antennas is mechanical, how it's put together, how well it will stand up under use (and price!). Electrically, most are basically the same except in power handling ability. It's been a few years since I did any investigating of screwdriver antennas so what I know about them isn't exactly current, but I seriously doubt if there have been any great 'break-throughs' in design. In general (meaning that there are always exceptions), pick one that you 'like' the looks of, can afford, and won't tip your vehicle over. All the rest is just advertising 'hype'...
'Doc

## 3969. Re: Antenna help needed - Thank you

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-21 15:08:21 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <F%Wxd.3507$_X7.1031@newssvr33.news.prodigy.com>
Source record: 84966

If your DX-100 said it was happy, then it was happy. Aside
from the 'lip' problem it sounds like it was more fun being
'dumb', right? Lots of 'truth' in that "fat dumb and happy"
feeling...
'Doc

PS - makes you wonder, don't it??
Have a 'cool' Yule!

PPS - Yeah, I know it was a joke, but leave my panties
alone, okay?

## 3970. Re: Would EMT be good for antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-21 15:30:10 UTC
From: stryped@hotmail.com
Message-ID: <1103643010.422092.233760@c13g2000cwb.googlegroups.com>
Source record: 84967

But I cant weld aluminum and I would bet it is expensive.

## 3971. J pole vs yagi for base

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-21 15:33:53 UTC
From: stryped@hotmail.com
Message-ID: <1103643233.673006.264240@c13g2000cwb.googlegroups.com>
Source record: 84968

I am a newbie wanting to set up a base station at my house on top of my tv tower. I am interested in building one myself. I have the capability to weld.

Do the j poles have gain to them? Are they near the performance of a several element yagi?

Can I make a dual band antenna in each of these styles?

Do the copper j poles last many years? I sometimes have high winds and lots of rain. Plus, I dont like heights and only want to do this once.

I would ideally like to reach a repeater about 70 - 80 miles away from me.

# 3972. Re: Antenna help needed - Thank you

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-21 16:01:59 UTC
From: N7ZZT - Eric Oyen <n7zzt@127.0.0.1>
Message-ID: <VNXxd.68856$DC.14005@fed1read03>
Source record: 84969

W4JLE wrote:

> For the humor challenged: It's a JOKE... Jheeez!
>
> My sincere apologies if I twisted any one's panties...
>
unfortunately, due to the vagaries of this medium, it is sometimes rather
difficult to tell if there is a joke or not (hence EMOTICONS).

--
DE N7ZZT
Eric Oyen
Phoenix, Arizona
e-mail: n7zzt(at)hotmail(dot)com
the difference between intelligence and stupidity is that intelligence
has its limits.

# 3973. Re: J pole vs yagi for base

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-21 16:22:28 UTC
From: AB2RC <AB2RC@localhost.localdomain>
Message-ID: <slrncsgjsf.la8.AB2RC@localhost.localdomain>
Source record: 84970

On 2004-12-21, stryped@hotmail.com <stryped@hotmail.com> wrote:
> I am a newbie wanting to set up a base station at my house on top of my
> tv tower. I am interested in building one myself. I have the capability
> to weld.
>

I hope you are referring to welding antenna elements, and not building a
tower by yourself

> Do the j poles have gain to them? Are they near the performance of a
> several element yagi?

Gain over what? Asking about gain without providing a reference point is
sort of useless. If memory serves me correct (and I do admit that my memory
is somewhat porous right now) a j-pole will have about the same gain as a
dipole over an isotropic radiator or 2.4dbi. A yagi would certainly have
more gain over a dipole or a j-pole. Remember that a yagi is directional,
and the j-pole is not. If you want to hit repeaters in more than one
direction, you will need a way to rotate the yagi.

>
> Can I make a dual band antenna in each of these styles?
>

Yes, google is your friend here.

> Do the copper j poles last many years? I sometimes have high winds and
> lots of rain. Plus, I dont like heights and only want to do this once.
>

I have one that has been up for 3 years now. The only difference between now
and when it first went up is that it is a darker color now due to
weathering. It seems to be just as strong now as t was then.

> I would ideally like to reach a repeater about 70 - 80 miles away from
> me.

That would depend mostly on how high up you can get the antenna (yagi or
j-pole) VHF/UHF is line of sight.

--
Alex / AB2RC
Linux is user friendly, however it is not idiot friendly

# 3974. Re: Why Match ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-21 16:30:02 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <v4abs0pjjk6sg8v5g855f1mt96m7t0hk5j@4ax.com>
Source record: 84971

On 21 Dec 2004 14:23:10 GMT, pdrunen@aol.com (PDRUNEN) wrote:

>Hi All,
>
>I was reviewing a 75 to 50 ohm resistive matching network using two resistors,
>the insertion lost was 5.7 db.

Hi OM,

That is the loss for using the network, and for this network it
appears to be Power lost IN the network (rather than Power not
delivered to the Load). However, this is not the best design for a
matching network, they are usually three resistors in either a PI or T
configuration.

>If we have a 100Vrms source with 50 ohm source impedance and it is driving a
>matched 50 ohm load then the load takes 1A and the power in the load is 50
>watts.

No matching network is required for this scenario.

>If the load is replaced with 75 ohm, then 0.8 amps will flow and the power is
>48 watts. (I*I*R) == (0.8)*(0.8)*75.

By your description, you are still not using the matching network. If
you think you are, then the math is incorrect.

>I guess I must be not be taking something in account, but 2 watts does not
>equal 5.7 db.

Of course not. You never accounted for your two matching resistors so
you cannot assign the 5.7dB loss to them.

>I know there must be a good reason to put the matching pad in line for the
>sprectrum analyizer but I don't under why.

There are any number of reasons - accuracy and stability being
principal among them. On the other hand, the two resistor variety is
not the most suitable for accuracy (except under known loads).
Another virtue is that it will increase the input power specification
by that same 5.7dB. This very handy when you are putting a flame
thrower to its input. Burnt resistors are cheaper and easier to
replace than the input stage. One very useful 100 Ohm resistor is a
10mA glass fuse (Wollaston wire).

73's
Richard Clark, KB7QHC

# 3975. Re: dc grounding on 25ft trap vertical ant 10m-80m

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-21 16:38:23 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <i1bbs0ls251k6hvhdifarepel9g24tdc34@4ax.com>
Source record: 84872

On Mon, 20 Dec 2004 18:42:02 GMT, "DAVID BROWNE"
<david.browne7@ntlworld.com> wrote:
>hi i have this ant and it dose not have dc grounding from ant to ground will
>it help clear static if i was to fit a dc ground, i have run ground to
>ground of ant, if dc ground will help , what inductor can i use or can i
>make coil

Hi David,

Add some radials to your vertical antenna. Research this by going to
google groups and doing a search using the keywords "ground" and
"radials."

Add a choke at the feedpoint. This can be a coil of transmission
line, or a 1:1 Current BalUn.

If you still have static noise AND it is due to charged particles
(smoke, soot, rain, snow, dust) then add a 1K Ohm resistor across the
feed point (or any handy choke of more than a 100 ï¿½H).

73's
Richard Clark, KB7QHC

# 3976. Re: Why Match ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-21 16:39:30 UTC
From: W9DMK <w9dmk@crosslink.net>
Message-ID: <41c84ae4.2830630@news.crosslink.net>
Source record: 84873

On 21 Dec 2004 14:23:10 GMT, pdrunen@aol.com (PDRUNEN) wrote:

>Hi All,
>
>I was reviewing a 75 to 50 ohm resistive matching network using two resistors,
>the insertion lost was 5.7 db.
>
>If we have a 100Vrms source with 50 ohm source impedance and it is driving a
>matched 50 ohm load then the load takes 1A and the power in the load is 50
>watts.

This is correct, if the 100 V rms source is the Thevenin emf - not the
loaded terminal voltage.

>If the load is replaced with 75 ohm, then 0.8 amps will flow and the power is
>48 watts. (I*I*R) == (0.8)*(0.8)*75.

Under those condx the load voltage is 60 V rms and the load power is
48 watts, as you indicated.

>I guess I must be not be taking something in account, but 2 watts does not
>equal 5.7 db.

Since the original load voltage was 50 volts rms and now it's 60
volts, one could argue that the load voltage is up by 1.6 dB. However,
the load power at 48 watts is in fact down by 0.17 dB

>
>I know there must be a good reason to put the matching pad in line for the
>sprectrum analyizer but I don't under why.

Interestingly enough, none of this has anything to do with your L-pad
matching network. All of your calculations above relate only to the
hypothetical situation in which you are actually "changing" the load
resistance and computing the new load power - nothing whatsoever to do
with the situation you would have when you actually insert an L-pad
between the real source and the original 50 ohm load.

A 75 to 50 ohm resistive matching pad is designed to work with a 75
ohm load and to present a 50 ohm load to the source, which it will do.
When you calculate the amount of power in the 75 ohm load before and
after inserting the L-pad you will get a significant loss, depending
upon the exact design of the two-resistor network. 5.7 dB sounds a bit
high, but it depends upon how the L-Pad losses are defined.

As to the reason for using the L-Pad, it's probably for the purpose of
minimizing the SWR on the cable between the L-Pad/Load and the source.

Since you haven't specified anything about the source, the load or what the purpose of the circuit is, one can only guess.

Bob, W9DMK, Dahlgren, VA
http://www.qsl.net/w9dmk

# 3977. Re: Newbie antenna help

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-21 16:45:11 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <gibbs0himgo1d67q7pb60mckqfk3rma86b@4ax.com>
Source record: 84874

On 21 Dec 2004 05:43:59 -0800, stryped@hotmail.com wrote:

>What would you recommend? Building a beam for two meter? If I did that
>would it work ok on 440 too?

Hi OM,

Beams add complications for a newbie, stick with a simple vertical
until you both need and can afford these. Concentrate on the simple
maxim: Higher is Better.

>Also, I have seen beams mounted bothe on it's side and upright like an
>outside tv antenna. Which way is better?

This is the complication - both are better... depending on what you
want to do. What you want to do depends on your local Ham activity
so, as you can see, the list of constraints grows in front of you.
Simply put up a cheap antenna (one you build yourself) and let events
drive your choices from there.

73's
Richard Clark, KB7QHC

## 3978. Re: Newbie antenna help

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-21 17:00:10 UTC
From: Caveat Lector <oldcl@rome.com>
Message-ID: <sEYxd.4015$JI.3898@fed1read07>
Source record: 84875

Here is some antenna theory to read to answer your questions
URL:
http://k9erg.tripod.com/theory.htm

--
Caveat Lecter

# 3979. Re: Why Match ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-21 17:00:33 UTC
From: Ralph Mowery <rmowery28146@earthlink.net>
Message-ID: <REYxd.7913$yK.2530@newsread3.news.atl.earthlink.net>
Source record: 84876

> I was reviewing a 75 to 50 ohm resistive matching network using two
resistors,
> the insertion lost was 5.7 db.
>
> If we have a 100Vrms source with 50 ohm source impedance and it is driving
a
> matched 50 ohm load then the load takes 1A and the power in the load is 50
> watts.
>
> If the load is replaced with 75 ohm, then 0.8 amps will flow and the power
is
> 48 watts. (I*I*R) == (0.8)*(0.8)*75.
>
> I guess I must be not be taking something in account, but 2 watts does not
> equal 5.7 db.
>
> I know there must be a good reason to put the matching pad in line for the
> sprectrum analyizer but I don't under why.
>
> Thanks,
>
> de KJ4UO

In test devices the losses are not usually a problem as long as the levels are accounted for if absolute numbers are needed. The impedances must match if any tuning is done. As teh impedance of a receiver is not usaully 50 ohms over a wide frequency range , you use a 6 db pad or so to isolate the generator from the receiver . If tuned circuits are involved, the impedance missmatch (swr) can cause many problems . You tune a device for a 50 ohm source or load and then replace it with a 70 ohm device and the tuning will usually change . By using the pads, it is an attempt to keep the impedance changes at a minimum when the test instruments are removed and the device put back into normal operation.

# 3980. Choosing mobile HF antennas.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-21 17:10:21 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cq9lds$i7i$1@titan.btinternet.com>
Source record: 84877

Radiating efficiency is the most important characteristic to consider. For short mobile antennas radiation patterns are all the same, the pattern in all planes much depending on where the antenna is mounted on the vehicle, and not on any peculiaritiies of the antenna itself. A roof-mounted antenna can be very different from one mounted on the bumper bar although you may not notice much difference in practice.

The most important dimension is antenna height. All other things remaining unchanged, the higher the antenna above its base, the greater the radiating efficiency. Low antennas are quite sensitive to height.

Loading coil position is not critical. Anywhere between 1/2 and 2/3 of antenna height will provide high efficiency. Avoid heights greater than 3/4.

The physically larger the loading coil the lower the coil loss, the higher its Q and the greater the radiating efficiency. Double all coil dimensions and wire diameter, reduce the number of turns, and coil Q is doubled at the same frequency.

'Screwdriver' type antennas are best when the unused short-circuited portion of the loading coil is enclosed in a metal tube, and the used portion is at a height about 1/3rd to 2/3rds of the antenna. Again, highest efficiency occurs with the largest diameter coils with the largest wire diameter.

If one antenna looks something similar to another then radio performances will be indistinguishable from each other. So choose on the basis of which one gives the impression of being more mechanically reliable.
----
Reg

# 3981. 7 BANDER ANTENNA, XP707 FROM SOMMER FOR SALE !

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-21 17:17:24 UTC
From: Jos&#65533; Lopes <fartolopes@mail.telepac.pt>
Message-ID: <41c85aa3$0$26968$a729d347@news.telepac.pt>
Source record: 84879

I am interested in sailing my hf antenna above mentioned that is in very
good conditions.
Reason: need to renew and create a new set up of antennas.
Antenna: Sommer (DJ2UT Beam)
Model: XP 707
Bands: 10, 12, 15, 17, 20, 30 and 40 meters
Balun: The balun furnished with the Sommer antennas is a low-loss
air core type using RG142 (BU) Teflon cable. The balun will handle 2.9 kW
continuous output at 30 MHz with a loss of only 0.05 dB.
This antenna it still on my tower and working very well.
For price please send one email to:
fartolopes@mail.telepac.pt

The transports costs will be at the resposability of the buyer.
If you are interestes we can sed some actual pictures, and for all the
informations concerning gain and front/back, please go to the oficial site:

http://www.sommerantennas.com/beaminfo.html

Best 73, Lopes - CT1CJJ

# 3982. Re: Why Match ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-21 17:24:16 UTC
From: W9DMK <w9dmk@crosslink.net>
Message-ID: <41c858ac.6358142@news.crosslink.net>
Source record: 84878

On 21 Dec 2004 14:23:10 GMT, pdrunen@aol.com (PDRUNEN) wrote:

>Hi All,
>
>I was reviewing a 75 to 50 ohm resistive matching network using two resistors,
>the insertion lost was 5.7 db.
>
>If we have a 100Vrms source with 50 ohm source impedance and it is driving a
>matched 50 ohm load then the load takes 1A and the power in the load is 50
>watts.
>
>If the load is replaced with 75 ohm, then 0.8 amps will flow and the power is
>48 watts. (I*I*R) == (0.8)*(0.8)*75.
>
>I guess I must be not be taking something in account, but 2 watts does not
>equal 5.7 db.
>
>I know there must be a good reason to put the matching pad in line for the
>sprectrum analyizer but I don't under why.
>
>Thanks,
>
>de KJ4UO

Dear KJ4UO,

Some additional help with your L-pad -

The minimum loss L-Pad for matching 75 ohms to 50 ohms would indeed
have a loss of 5.7 dB. This is from the ITT handbook, pages 10-4
through 10-8. The design values for such an L-Pad would give the 5.7
dB loss based upon the following: Let P1 be the power delivered to a
matched load (50 ohms) from the 50 ohm source. Let P2 be the power
delivered to a 75 ohm load when fed through the 75 to 50 resistive
matching network. Then P1 / P2 will be approximately 3.715.
10 x Log(3.7) = 5.7 dB. You can work that out from the design values
for the L-Pad, which are 43 ohms in the series arm and 86.7 ohms in
the shunt arm.

Bob, W9DMK, Dahlgren, VA
http://www.qsl.net/w9dmk

# 3983. 20 Meter 4 element Mono bander for SALE

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-21 17:27:11 UTC
From: Filipe Lopes <ct1ilt@mail.telepac.pt>
Message-ID: <41c85cfd$0$26975$a729d347@news.telepac.pt>
Source record: 84880

Hi all,

OH2BZ/CT1FJK is sailing his 4 element monobader, still packed.

This antenna was bought to the Finnish antenna : http://ct1ilt.cybton.com
Never used
This antenna has 4 elements, with 15+ boom at 75/80mm storm-WX boom.

Name your Price to ct1ilt@mail.telepac.pt

Transport costs from CT1FJK's house to buyer will be at Buyers
responsability.

73's Filipe CT1ILT

# 3984. 20M 4 elem antenna for sale !

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-21 17:28:02 UTC
From: Filipe Lopes <ct1ilt@mail.telepac.pt>
Message-ID: <41c85d20$0$26959$a729d347@news.telepac.pt>
Source record: 84881

Hi all,

OH2BZ/CT1FJK is sailing his 4 element monobader, still packed.

This antenna was bought to the Finnish antenna : http://ct1ilt.cybton.com
Never used
This antenna has 4 elements, with 15+ boom at 75/80mm storm-WX boom.

Name your Price to ct1ilt@mail.telepac.pt

Transport costs from CT1FJK's house to buyer will be at Buyers
responsability.

73's Filipe CT1ILT

# 3985. Re: Newbie antenna help

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-21 18:11:29 UTC
From: Jack Painter <223bthp@cox.net>
Message-ID: <mHZxd.13890$7p.5898@lakeread02>
Source record: 84882

"Caveat Lector" <oldcl@rome.com> wrote

> Here is some antenna theory to read to answer your questions
> URL:
> http://k9erg.tripod.com/theory.htm

Nice site. Except for the inaccurate advice warning of disastrous effects from operating a J-Pole w/o a BalUn. I use neither a BalUn nor any coiled-feedline as a choke. If my feedline is radiating, it's the most efficient feedline radiator ever made, getting loud and clear 100 mile coverage on VHF Marine between other high sites, and surface contacts between 20-30 nautical miles depending on height of vessels antenna. Another misconception about J-Poles is from at least one web-site offering plans, in which the offerer warned against grounding the antenna. Dangerous and wrong of course, as the antenna and its mast should be grounded and performs very well as such. The stub-capped tops of a copper-pipe J-Pole antenna at the highest point of a structure will indeed be an air terminal for lightning that was going to strike that immediate area anyway. Maybe my lightning down conductors heading 180 degrees from the J-Pole to series of ground rods are the SECRET <G>.
--
Users considering a static and lightning-grounded (and un-choked) J-Pole should make sure the British did not already invent/patent this form of improvement to the J-Pole radiation pattern. ;-)
--

73,
Jack

## 3986. Re: New Call

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-21 18:18:18 UTC
From: dx440@webtv.net
Message-ID: <28941-41C868EA-307@storefull-3273.bay.webtv.net>
Source record: 84883

good luck to you hope to here you some day on the air

# 3987. Re: Newbie antenna help

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-21 18:44:28 UTC
From: Dee Flint <deeflint01@comcast.net>
Message-ID: <XMGdnVAfjrqW8lXcRVn-pQ@comcast.com>
Source record: 84884

<stryped@hotmail.com> wrote in message
news:1103636639.512684.202910@c13g2000cwb.googlegroups.com...
>
> Dee Flint wrote:
>> <stryped@hotmail.com> wrote in message
>> news:1103577722.434508.43940@f14g2000cwb.googlegroups.com...
>> > New to ham radio. Interested in building an antenna for a base
> station.
>> > I dont have anything yet, just in the planning stage.
>> >
>> >
>> > Thought about buying a handheld and using that as part of my "base
>> > station" one maybe capable of 2 440 and 6. These seem cheaper used
> than
>> > the home units.
>> >
>>
>> Yes the handhelds are cheaper but they have a lot less power.
> However if
>> your antenna is high enough, you can do amazing things with it.
>>
>> >
>> > My question is, is there information out there on how to build one?
> I
>> > have a radio shack book at home that has a plan for a 440. It uses
>> > aluminum ground wire. What I find when working with this stuff is
> it is
>> > impossible to make it perfectlyu straight. Doesn't that effect the
>> > performance? I mean it comes coiled and when I cut it to length I
> cant
>> > get it perfectly straight.
>> >
>>
>> It doesn't have to be perfectly straight. You won't notice any
> difference
>> unless you have loops coiled in it.
>>
>> >
>> > Also, it is posisble to have good performance with one antenna for
> all
>> > the bands? Or is it absolutely necessary to have one antenna for
> each
>> > band? I have limited room.
>> >

>>
>> Yes there are multiband antennas. Basically, they use some type of
> coil or
>> trap to subdivide the antenna. The full length of the antenna is
> used for
>> the lowest frequency, etc.
>>
>> Dee D. Flint, N8UZE
>
> What would you recommend? Building a beam for two meter? If I did that
> would it work ok on 440 too?
>

I'm not into a lot of VHF/UHF work personally however my OM likes loop antennas. However loops don't have any significant gain unless you stack them. Many people do like beams and some build their own. There are MANY good antenna books available from the ARRL. Start with The ARRL Antenna Book. As for working on more than one band, only those designed with that in mind will work adequately on two bands. If it is designed for only one band, it will be very bad on the other.

> Also, I have seen beams mounted bothe on it's side and upright like an
> outside tv antenna. Which way is better?
>

Vertical elements on beams will yield vertical polarization and are thus suitable for repeater work and a lot of FM simplex.

Horizontal elements will yield horizontal polarization and are thus suitable for weak signal work such as working distant SSB stations (horizontal is the custom on SSB).

You really need to get and read a good antenna book. A newsgroup cannot give you enough detail.

Dee D. Flint, N8UZE

# 3988. Re: Would EMT be good for antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-21 18:49:15 UTC
From: kelly@dvol.com
Message-ID: <1103654955.531757.40260@z14g2000cwz.googlegroups.com>
Source record: 84885

stryped@hotmail.com wrote:
> But I cant weld aluminum and I would bet it is expensive.

EMT will corrode very quickly out in the weather - particularly if it's welded, aluminum will not. EMT is much heavier per foot than aluminum, etc. Aluminum antennas are easily constructed by using hardware store U-bolts and other standard fasteners, usually stainless steel and they work fine. Yes aluminum is more expensive than EMT but it's worth it for a number of reasons. I suggest you follow the examples of those who have been building antennas from aluminum for decades.

w3rv

# 3989. Re: Why Match ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-21 18:52:52 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41c87122$1_2@127.0.0.1>
Source record: 84886

PDRUNEN wrote:
> Hi All,
>
> I was reviewing a 75 to 50 ohm resistive matching network using two resistors,
> the insertion lost was 5.7 db.
>
> If we have a 100Vrms source with 50 ohm source impedance and it is driving a
> matched 50 ohm load then the load takes 1A and the power in the load is 50
> watts.
>
> If the load is replaced with 75 ohm, then 0.8 amps will flow and the power is
> 48 watts. (I*I*R) == (0.8)*(0.8)*75.
>
> I guess I must be not be taking something in account, but 2 watts does not
> equal 5.7 db.

It appears that you forgot to put the resistive matching network
into the circuit. There must be a series resistor in there between
the source impedance and the load impedance to obtain that 5.7 dB
of isolation.
--
73, Cecil http://www.qsl.net/w5dxp

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http://www.newsfeed.com The #1 Newsgroup Service in the World!
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# 3990. Re: J pole vs yagi for base

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-21 19:16:16 UTC
From: stryped@hotmail.com
Message-ID: <1103656576.808810.131110@f14g2000cwb.googlegroups.com>
Source record: 84887

AB2RC wrote:
> On 2004-12-21, stryped@hotmail.com <stryped@hotmail.com> wrote:
> > I am a newbie wanting to set up a base station at my house on top
of my
> > tv tower. I am interested in building one myself. I have the
capability
> > to weld.
> >
>
> I hope you are referring to welding antenna elements, and not
building a
> tower by yourself
>
>
> > Do the j poles have gain to them? Are they near the performance of
a
> > several element yagi?
>
> Gain over what? Asking about gain without providing a reference point
is
> sort of useless. If memory serves me correct (and I do admit that my
memory
> is somewhat porous right now) a j-pole will have about the same gain
as a
> dipole over an isotropic radiator or 2.4dbi. A yagi would certainly
have
> more gain over a dipole or a j-pole. Remember that a yagi is
directional,
> and the j-pole is not. If you want to hit repeaters in more than one
> direction, you will need a way to rotate the yagi.
>
>
>
> >
> > Can I make a dual band antenna in each of these styles?
> >
>
> Yes, google is your friend here.
>
>
> > Do the copper j poles last many years? I sometimes have high winds
and
> > lots of rain. Plus, I dont like heights and only want to do this
once.

> >
>
> I have one that has been up for 3 years now. The only difference
between now
> and when it first went up is that it is a darker color now due to
> weathering. It seems to be just as strong now as t was then.
>
>
> > I would ideally like to reach a repeater about 70 - 80 miles away
from
> > me.
>
> That would depend mostly on how high up you can get the antenna (yagi
or
> j-pole) VHF/UHF is line of sight.
>
>
>
> --
> Alex / AB2RC
> Linux is user friendly, however it is not idiot friendly

No, the tv tower is already up. I meant I can weld the elements. (Of course only if it is weldable material.) I was wondering if emt tubing would be a good choice?

The antenna would be about 25 feet up. I had someone else tell me that a j pole does not work very well. Is this true?

I can rotate the mast by turning the antenna rotor hooked to my tv down stairs. The only pain would be running down stairs every time I want to do it.

What would you do in this situation? Can you get as good as or better performance building one yourself?

# 3991. Re: Would EMT be good for antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-21 19:19:47 UTC
From: stryped@hotmail.com
Message-ID: <1103656787.063134.152190@c13g2000cwb.googlegroups.com>
Source record: 84888

Where do you purchase the aluminum from?

# 3992. Re: Would EMT be good for antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-21 19:20:39 UTC
From: stryped@hotmail.com
Message-ID: <1103656839.218869.170820@z14g2000cwz.googlegroups.com>
Source record: 84889

Where do you purchase the aluminum form?

# 3993. Re: J pole vs yagi for base

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-21 20:25:23 UTC
From: AB2RC <AB2RC@localhost.localdomain>
Message-ID: <slrncsh240.m1k.AB2RC@localhost.localdomain>
Source record: 84890

On 2004-12-21, stryped@hotmail.com <stryped@hotmail.com> wrote:
>
> No, the tv tower is already up. I meant I can weld the elements. (Of
> course only if it is weldable material.) I was wondering if emt tubing
> would be a good choice?

Aluminum would be a better choice than emt tubing. The EMT stuff will rust
after a while, and is not as strong as it appears to be. It would also be
heaver than aluminum tubing for making a yagi.

You might not need to weld the tubing anyway. You can get nesting tubing,
and connect lengths by splitting the ends a bit and using hose clamps. Also
for the bands you mentioned, the tubing would more likely need to be cut to
length, rather than joined together to increase the length.

>
> The antenna would be about 25 feet up. I had someone else tell me that
> a j pole does not work very well. Is this true?
>

J-poles work well, but it all depends on your definiation of "working well".
The higher the better, 25 feet would probably work, but it depends on the
terrain between the repeaters and your antenna.

> I can rotate the mast by turning the antenna rotor hooked to my tv down
> stairs. The only pain would be running down stairs every time I want to
> do it.
>

If you already have ther rotor that would be ok, just leave a reasonable
distance between the tv antenna (if there is still one there) and your yagi.

> What would you do in this situation? Can you get as good as or better
> performance building one yourself?
>

I think that I would put up at least 2 antennas. A j-pole first, and then a
yagi. If I had a multimode rig, I would put the yagi in a horizontal plane
for ssb use.

As for performance, you can make just about anything that the commercial
manufacturers can. It might cost more or less depending on your skills and
what you have available for materials.

--
Alex / AB2RC
Linux is user friendly, however it is not idiot friendly

# 3994. Re: Would EMT be good for antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-21 20:27:52 UTC
From: AB2RC <AB2RC@localhost.localdomain>
Message-ID: <slrncsh28l.m1k.AB2RC@localhost.localdomain>
Source record: 84892

On 2004-12-21, stryped@hotmail.com <stryped@hotmail.com> wrote:
> Where do you purchase the aluminum form?

Hardware mega mart -- home depot, lowes, ace, or your local hardware store.

Just about anything you might want for building antennas can be found in the electrical, plumbing or assorted hardware aisles.

--
Alex / AB2RC
Linux is user friendly, however it is not idiot friendly

# 3995. Re: Why Match ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-21 20:27:54 UTC
From: Ian Jackson <IanJacksonRemoveThisBit@g3ohx.demon.co.uk>
Message-ID: <ei4W1dJKdIyBFwOu@g3ohx.demon.co.uk>
Source record: 84891

In message <v4abs0pjjk6sg8v5g855f1mt96m7t0hk5j@4ax.com>, Richard Clark
<kb7qhc@comcast.net> writes
>On 21 Dec 2004 14:23:10 GMT, pdrunen@aol.com (PDRUNEN) wrote:
>
>>Hi All,
>>
>>I was reviewing a 75 to 50 ohm resistive matching network using two resistors,
>>the insertion lost was 5.7 db.
>
>Hi OM,
>
<Snips>
>However, this is not the best design for a
>matching network, they are usually three resistors in either a PI or T
>configuration.
>

Several manufacturers of precision matching pads might disagree!
Two resistors is enough, although you have to remember to add a rather
odd number (unless the measuring equipment can add it for you). If you
add a third resistor, you can make the correction a straight 6dB. That's
probably the only virtue.
Ian.
--

# 3996. Re: J pole vs yagi for base

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-21 20:39:41 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <deobs0tatin9133glda71hdeqkt28fegp9@4ax.com>
Source record: 84893

On 21 Dec 2004 11:16:16 -0800, stryped@hotmail.com wrote:

>No, the tv tower is already up. I meant I can weld the elements. (Of
>course only if it is weldable material.) I was wondering if emt tubing
>would be a good choice?

Hi OM,

The consensus is that it is not. If you are going to invest your time
and effort, short-cuts generally lead to repetition. You wanted to do
this once? You are in the wrong hobby. Better is how to plan doing
it many times, but planning to do it in the least stressful way.

>The antenna would be about 25 feet up.

You had a range requirement of upwards to 70 miles. With a 25 foot
elevation, your mileage range is roughly the square root of twice that
- or 7 miles. You can double that if the other antenna is up equally
far. If you are on a rise of land above the mean level, add that to
your elevation. If the antenna at the other end is much higher,
compute its range (hopefully a mountain top).

>I had someone else tell me that
>a j pole does not work very well. Is this true?

Varies by user as it is susceptible to transmission line length
problems. These problems are SWR related. However, that aside, as a
principle antenna for the range you ask, then that antenna at the
other end has to make up for a lot (it better be higher, an array, or
some combination).
>
>I can rotate the mast by turning the antenna rotor hooked to my tv down
>stairs. The only pain would be running down stairs every time I want to
>do it.

You have to now investigate if your tower/rotator can in fact stand
the additional wind load factor (or weight, or moment).

>What would you do in this situation? Can you get as good as or better
>performance building one yourself?

Depends on your resources. It already sounds like you are shy there
in finding aluminum of the proper grade. Best advice is to visit a
metal scrap yard in the crummy part of town. Or - bite the bullet and
pull out your wallet.

If all this is to hit a repeater, and a popular one, you should simply
try it and see what happens with a rubber duck. Then build a simple

ground plane ($5) and hoist it as high as you can (on a broomstick out the 2nd floor window will do as a test). Popular repeaters are popular because they solved all these problems for you (by being high and having gain).

73's
Richard Clark, KB7QHC

# 3997. Re: Newbie antenna help

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-21 20:40:48 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10sh2imklrldv65@corp.supernews.com>
Source record: 84894

Jack Painter wrote:
>
> Nice site. Except for the inaccurate advice warning of disastrous effects
> from operating a J-Pole w/o a BalUn. I use neither a BalUn nor any
> coiled-feedline as a choke. If my feedline is radiating, it's the most
> efficient feedline radiator ever made, getting loud and clear 100 mile
> coverage on VHF Marine between other high sites, and surface contacts
> between 20-30 nautical miles depending on height of vessels antenna. . .

The problem is that without the balun, the feedline is part of the antenna. So anyone trying to get the same results as you do has to use the same length of feedline, position it the same, and maybe even ground his rig the same way you do. (That is, have the same path from the rig to the Earth through the power wiring.) If he does it differently and happens to not be as lucky as you, he could take a bit of a beating in field strength. And both of you could be running the risk of causing RFI if you're running significant power and your feedline runs close to house or telephone wiring.

If a balun is used (actually, two are likely necessary, spaced about a quarter wavelength apart), only the J-Pole will radiate, and the user won't have to worry about lucking out and having just the right feedline and orientation.

I think the reason some people love J-Poles and some hate them is that some, like you, have been lucky with feedline length and placement and some haven't. I prefer to depend on design rather than luck to make my antennas work, but lots of folks are perfectly happy to just roll the dice.

Roy Lewallen, W7EL

# 3998. Re: Why Match ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-21 21:16:03 UTC
From: W9DMK <w9dmk@crosslink.net>
Message-ID: <41c891ad.778198@news.crosslink.net>
Source record: 84895

On 21 Dec 2004 14:23:10 GMT, pdrunen@aol.com (PDRUNEN) wrote:

>Hi All,
>
>I was reviewing a 75 to 50 ohm resistive matching network using two resistors,
>the insertion lost was 5.7 db.
>
>If we have a 100Vrms source with 50 ohm source impedance and it is driving a
>matched 50 ohm load then the load takes 1A and the power in the load is 50
>watts.
>
>If the load is replaced with 75 ohm, then 0.8 amps will flow and the power is
>48 watts. (I*I*R) == (0.8)*(0.8)*75.
>
>I guess I must be not be taking something in account, but 2 watts does not
>equal 5.7 db.
>
>I know there must be a good reason to put the matching pad in line for the
>sprectrum analyizer but I don't under why.
>
>Thanks,
>
>de KJ4UO

Dear KJ4UO,

I have fundamental objections to responding to respondants, so I will continue to address this thread directly. It has been suggested that a virtue of the T pad would give a clean 6 dB loss instead of some "not-so-nice" loss, like 5.7 dB. Well, that's not a problem because the L-Pad can also be designed for exactly 6 dB. In fact, it can be designed to provide ANY loss you want, so long as it's AT LEAST 5.7 dB. You see, the 5.7 dB L-Pad happens to be the MINIMUM loss design for that particular mismatch.

Bob, W9DMK, Dahlgren, VA
http://www.qsl.net/w9dmk

# 3999. Re: Why Match ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-21 21:20:04 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <5mqbs0ho36iqfcua1br7javftjh0p2b042@4ax.com>
Source record: 84896

On Tue, 21 Dec 2004 20:27:54 +0000, Ian Jackson
<IanJacksonRemoveThisBit@g3ohx.demon.co.uk> wrote:

>>However, this is not the best design for a
>>matching network, they are usually three resistors in either a PI or T
>>configuration.
>Several manufacturers of precision matching pads might disagree!

Hi Ian,

I seriously doubt it, but you are free to offer examples.

73's
Richard Clark, KB7QHC

# 4000. Re: J pole vs yagi for base

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-21 21:42:56 UTC
From: stryped@hotmail.com
Message-ID: <1103665376.411022.135210@z14g2000cwz.googlegroups.com>
Source record: 84897

Richard Clark wrote:
> On 21 Dec 2004 11:16:16 -0800, stryped@hotmail.com wrote:
>
> >No, the tv tower is already up. I meant I can weld the elements. (Of
> >course only if it is weldable material.) I was wondering if emt
tubing
> >would be a good choice?
>
> Hi OM,
>
> The consensus is that it is not. If you are going to invest your
time
> and effort, short-cuts generally lead to repetition. You wanted to
do
> this once? You are in the wrong hobby. Better is how to plan doing
> it many times, but planning to do it in the least stressful way.

It is not I want to only do this once. It is I am a little scared of
heights and do not want to climb up that tower any more than I have to.
>
> >The antenna would be about 25 feet up.
>
> You had a range requirement of upwards to 70 miles. With a 25 foot
> elevation, your mileage range is roughly the square root of twice
that
> - or 7 miles. You can double that if the other antenna is up equally
> far. If you are on a rise of land above the mean level, add that to
> your elevation. If the antenna at the other end is much higher,
> compute its range (hopefully a mountain top).

It is a repeater 80 miles away I would like to hit. I would also to try
long range simplex if possible.
>
> >I had someone else tell me that
> >a j pole does not work very well. Is this true?
>
> Varies by user as it is susceptible to transmission line length
> problems. These problems are SWR related. However, that aside, as a
> principle antenna for the range you ask, then that antenna at the
> other end has to make up for a lot (it better be higher, an array, or
> some combination).
The other problem is the transmision line will have to be long,
probably35 feet or more. Is this a problem?
> >I can rotate the mast by turning the antenna rotor hooked to my tv
down

> >stairs. The only pain would be running down stairs every time I want
to
> >do it.
>
> You have to now investigate if your tower/rotator can in fact stand
> the additional wind load factor (or weight, or moment).
>
> >What would you do in this situation? Can you get as good as or
better
> >performance building one yourself?
>
> Depends on your resources. It already sounds like you are shy there
> in finding aluminum of the proper grade. Best advice is to visit a
> metal scrap yard in the crummy part of town. Or - bite the bullet
and
> pull out your wallet.
>
> If all this is to hit a repeater, and a popular one, you should
simply
> try it and see what happens with a rubber duck. Then build a simple
> ground plane ($5) and hoist it as high as you can (on a broomstick
out
> the 2nd floor window will do as a test). Popular repeaters are
> popular because they solved all these problems for you (by being high
> and having gain).
>
> 73's
> Richard Clark, KB7QHC

# 4001. Re: Why Match ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-21 21:45:46 UTC
From: W9DMK <w9dmk@crosslink.net>
Message-ID: <41c898e4.2625064@news.crosslink.net>
Source record: 84898

On 21 Dec 2004 14:23:10 GMT, pdrunen@aol.com (PDRUNEN) wrote:

>Hi All,
>
>I was reviewing a 75 to 50 ohm resistive matching network using two resistors,
>the insertion lost was 5.7 db.
>
>If we have a 100Vrms source with 50 ohm source impedance and it is driving a
>matched 50 ohm load then the load takes 1A and the power in the load is 50
>watts.
>
>If the load is replaced with 75 ohm, then 0.8 amps will flow and the power is
>48 watts. (I*I*R) == (0.8)*(0.8)*75.
>
>I guess I must be not be taking something in account, but 2 watts does not
>equal 5.7 db.
>
>I know there must be a good reason to put the matching pad in line for the
>sprectrum analyizer but I don't under why.
>
>Thanks,
>
>de KJ4UO

Dear KJ4UO,

First, I must apologize for not noticing that your posting DOES
mention that the application is a Spectrum Analyzer. That being the
case, I can be much more enlightening about WHY we want a flat line
(no standing waves).

A spectrum analyzer is of use primarily in showing WHAT frequencies
are present in the specturm AND what their relative levels are. Unless
the line is flat, the relative levels will be distorted or inaccurate.
This comes about due to the fact that a mismatched line becomes an
impedance transformer that is very frequency dependant. That is, some
frequencies will be artificially enhanced and others artificially
subdued due to the varying impedance impedance seen by the source.
Conversely, when the source sees a perfect match across its acceptance
spectrum, only the built-in non-linearities will degrade the accuracy.

In short, the line must be properly matched in order that the spectrum
analyzer give the accuracy that it is capable of.

BTW, it should be understood that the matching L-Pad, in order to be
effective, must be physically located at the Spectrum Analyzer end of

the line - not at the source end of the line.

Interestingly enough, hams do not usually take this into account when tuning an antenna system, because they are only interested in a flat line for that short little piece of coax between the tuner and the transmitter. They don't normally do anything about the horrible SWR that exists on the feedline - Hi!

Bob, W9DMK, Dahlgren, VA
http://www.qsl.net/w9dmk

# 4002. Re: dc grounding on 25ft trap vertical ant 10m-80m

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-21 21:50:13 UTC
From: DAVID BROWNE <david.browne7@ntlworld.com>
Message-ID: <pU0yd.1114$5d5.287@newsfe6-gui.ntli.net>
Source record: 84899

thanks
dave browne 2e0dmb
"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:i1bbs0ls251k6hvhdifarepel9g24tdc34@4ax.com...
> On Mon, 20 Dec 2004 18:42:02 GMT, "DAVID BROWNE"
> <david.browne7@ntlworld.com> wrote:
>>hi i have this ant and it dose not have dc grounding from ant to ground
>>will
>>it help clear static if i was to fit a dc ground, i have run ground to
>>ground of ant, if dc ground will help , what inductor can i use or can i
>>make coil
>
> Hi David,
>
> Add some radials to your vertical antenna. Research this by going to
> google groups and doing a search using the keywords "ground" and
> "radials."
>
> Add a choke at the feedpoint. This can be a coil of transmission
> line, or a 1:1 Current BalUn.
>
> If you still have static noise AND it is due to charged particles
> (smoke, soot, rain, snow, dust) then add a 1K Ohm resistor across the
> feed point (or any handy choke of more than a 100 ?H).
>
> 73's
> Richard Clark, KB7QHC

# 4003. Re: Why Match ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-21 21:54:30 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <d3sbs0h74vdan5vra5a7cpckuo3a7ngqqg@4ax.com>
Source record: 84900

On Tue, 21 Dec 2004 21:16:03 GMT, W9DMK<w9dmk@crosslink.net> (Robert Lay) wrote:

> It has been suggested that a
>virtue of the T pad would give a clean 6 dB loss instead of some
>"not-so-nice" loss, like 5.7 dB. Well, that's not a problem because
>the L-Pad can also be designed for exactly 6 dB. In fact, it can be
>designed to provide ANY loss you want, so long as it's AT LEAST 5.7
>dB. You see, the 5.7 dB L-Pad happens to be the MINIMUM loss design
>for that particular mismatch.

Hi Bob,

The difference between 5.7 and 6dB is immaterial if neither is calibrated. As for the desire for a nominal 6dB pad, that too is hardly of great merit for quality measurements with a good Spectrum Analyzer.

Just like directional coupler design, precision applications focus on directivity and sacrifice round numbers in coupling to achieve better separation of ports. A 6dB attenuator will isolate your precision gear from the unknown better than a 3dB attenuator, but not as well as a 10 or 20dB attenuator.

Now, as to the term isolation. It has a variety of meanings which in this case means that your measurement is less perturbed by the literal unknowns of your proverbial unknown being measured. That is, in your attempt to find a value (the proverbial unknown) your accuracy can be upset by variables whose magnitude can affect that accurate determination. Large attenuators obviously de-sense the instrumentation, but if you have sufficient dynamic range, then that is not a debit, but actually an asset. Hence de-sense or isolation is benign. When this large attenuator is placed on the source, it reduces the load's influence to pull or mismatch there too.

This says nothing of actual mismatches, it simply presents what is called swamping. That is, you introduced known and controlled losses to buffer the measurement. Later you can subtract out the losses to find your proverbial unknown.

I already alluded to the virtue of using attenuators to increase the power tolerance to the input of a Spectrum Analyzer, aside from this, the only practical use of attenuators is to introduce controlled loss to isolate the unknowns' influence.

To answer "Why Match?" returns us to isolation. Once this is achieved, the measurement can be trusted to be faithful in proportion

to that isolation. With this example of a simple 50 to 75 Ohm conversion, that measurement's faithful accuracy is fairly good. As for it being a ~6dB attenuator, by placing it into another test with an unknown, it will offer mixed results - a T or PI configuration at a higher attenuation would be far more flexible, and faithful.

73's
Richard Clark, KB7QHC

# 4004. Re: J pole vs yagi for base

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-21 22:10:54 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <a3ubs054jo7shaagcpjnv2oqc1it055rql@4ax.com>
Source record: 84901

On 21 Dec 2004 13:42:56 -0800, stryped@hotmail.com wrote:

>
>It is a repeater 80 miles away I would like to hit. I would also to try
>long range simplex if possible.

Hi OM,

I've touched on the requirements for you and the repeater. You will
be successful in direct, root proportion to heights for simplex.

The difference between a J-Pole or Ground Plane, or vertical Dipole,
or Discone, or sleeve Dipole.... and so on, will be marginal. The
difference between a simple vertical (as were all those in that list)
and an vertical array has gain for the same power. However, the
difference between that same array compared to any antenna turned 90ï¿½
to it can have -20 to -30dB (those are minuses) difference IF you
choose the wrong orientation WRT the listener. This is called crossed
polarization and can be a killer (you wanted to put this up once, and
if that once happens to be cross polarized to the majority of the
traffic you want to engage in - kiss them good bye).

You should be advised that FM is usually vertical, and SSB is usually
horizontal. See any problems with trying to make one antenna work
everywhere?

>The other problem is the transmision line will have to be long,
>probably35 feet or more. Is this a problem?

Of course. You simply have to investigate by what degree. RG-174
would be like plugging your ears and mouth, other bigger and more
expensive lines would not. Fortunately this is very simple to resolve
as line is characterized in the loss per hundred feet (if you only use
35 feet, you need only reckon 35% of that quoted loss).

73's
Richard Clark, KB7QHC

# 4005. Re: J pole vs yagi for base

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-21 22:19:21 UTC
From: Bob Miller <rmiller47@satx.rr.com>
Message-ID: <o38hs09duv2o648h6qhu2kal9j88j36qe3@4ax.com>
Source record: 84902

On 21 Dec 2004 07:33:53 -0800, stryped@hotmail.com wrote:

>I am a newbie wanting to set up a base station at my house on top of my
>tv tower. I am interested in building one myself. I have the capability
>to weld.
>
>Do the j poles have gain to them? Are they near the performance of a
>several element yagi?
>
>Can I make a dual band antenna in each of these styles?
>
>Do the copper j poles last many years? I sometimes have high winds and
>lots of rain. Plus, I dont like heights and only want to do this once.
>
>I would ideally like to reach a repeater about 70 - 80 miles away from
>me.

For a j-pole, you might look at the Arrow Antennas site -- for one you could purchase, or, if you're really handy with metal, you could replicate one of their designs -- the diagrams & dimensions are all there.

bob
k5qwg

# 4006. Re: Antenna help needed - Thank you

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-21 22:34:58 UTC
From: W4JLE <W4jle@w4jle.com>
Message-ID: <ny1yd.7442$VQ2.2408@fe39.usenetserver.com>
Source record: 84903

In the words of the immortal W2OY....

"N7ZZT - Eric Oyen" <n7zzt@127.0.0.1> wrote in message
news:VNXxd.68856$DC.14005@fed1read03...
> W4JLE wrote:
>
> > For the humor challenged: It's a JOKE... Jheeez!
> >
> > My sincere apologies if I twisted any one's panties...
> >
> unfortunately, due to the vagaries of this medium, it is sometimes rather
> difficult to tell if there is a joke or not (hence EMOTICONS).
>
> --
> DE N7ZZT
> Eric Oyen
> Phoenix, Arizona
> e-mail: n7zzt(at)hotmail(dot)com
> the difference between intelligence and stupidity is that intelligence
> has its limits.

# 4007. Re: Would EMT be good for antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-21 22:47:25 UTC
From: garigue <garigue@comcast.net>
Message-ID: <1K1yd.791751$8_6.152693@attbi_s04>
Source record: 84904

> Where do you purchase the aluminum form?

You might try a non-ferrous scrap yard in your area .....I have seen really nice stuff of there for little more than scrap prices. I used to be able to walk about the yard and look about but the insurance industry and the lawyers put an end to that in most cases. A lot of the large scrap yards have been gobbled up by the big national and international conglomerates. I remember seeing piles of Al tubing rounds, squares, angles et al. Try hanging out at the local tavern near the yard ...it is amazing what a few beers will get you ..... this is in all seriousness .....

Take care ...Merry Christmas all ..... Tom Popovic KI3R Belle Vernon Pa.

# 4008. Re: Why Match ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-21 22:51:30 UTC
From: Ian Jackson <IanJacksonRemoveThisBit@g3ohx.demon.co.uk>
Message-ID: <BiGRVaDyjKyBFwsx@g3ohx.demon.co.uk>
Source record: 84905

In message <5mqbs0ho36iqfcua1br7javftjh0p2b042@4ax.com>, Richard Clark
<kb7qhc@comcast.net> writes
>On Tue, 21 Dec 2004 20:27:54 +0000, Ian Jackson
><IanJacksonRemoveThisBit@g3ohx.demon.co.uk> wrote:
>
>>>However, this is not the best design for a
>>>matching network, they are usually three resistors in either a PI or T
>>>configuration.
>>Several manufacturers of precision matching pads might disagree!
>
>Hi Ian,
>
>I seriously doubt it, but you are free to offer examples.
>
>73's
>Richard Clark, KB7QHC

http://www.maxim-ic.com/appnotes.cfm/appnote_number/972/ln/en
http://www.maxim-ic.com/appnotes.cfm/appnote_number/3250
http://www.maxim-ic.com/appnotes.cfm/appnote_number/972/ln/en
http://www.testmart.com/estore/productstmp.cfm/v/001~~..%2Fsearch%2Fspec.
cfm~~MICCOM~~AGILEN~~11852B~~%20~~%20|1.html
http://www.g4fgq.regp.btinternet.co.uk/padmatch.pas
http://www.g4fgq.regp.btinternet.co.uk/padmatch.pas
http://used-line.com/b2544p1pr0-Used-pads.htm
http://www.minicircuits.com/dg03-159.pdf#search='minimum%20loss%20pad'
+ many, many more!
Ian.

--

# 4009. Re: Would EMT be good for antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-21 22:54:25 UTC
From: Ralph Mowery <rmowery28146@earthlink.net>
Message-ID: <BQ1yd.8163$yK.7491@newsread3.news.atl.earthlink.net>
Source record: 84906

<stryped@hotmail.com> wrote in message
news:1103656839.218869.170820@z14g2000cwz.googlegroups.com...
> Where do you purchase the aluminum form?
>
I have ordered some from Texas Towers.

http://www.texastowers.com/

I think it is the .058 sizes that telescope into the next size up. Also I
think that for UPS shipping you will have to get it in the 6 foot lengths.

# 4010. Re: Newbie antenna help

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-21 23:00:42 UTC
From: W4JLE <W4jle@w4jle.com>
Message-ID: <vW1yd.7462$VQ2.5412@fe39.usenetserver.com>
Source record: 84907

For two meters and 440 I would suggest a J-pole. If you look on the arrow antenna site http://www.arrowantennas.com/j-pole.html
He gives you the information to build your own. FM by mutual agreement is vertical where sideband is horizontal. This relationship is used on VHF and UHF.

On 6 meters a simple dipole will get you started. Use the formula 468/desired frequency in MHz equals the total wire length in feet. Make it a little longer for adjustment purposes then cut it in half. Add a center insulator and end insulators. At low power (<=100 watts) use pieces of PVC pipe. Tie the shield of the coax to one side of center and the center conductor to the other.

Welcome to amateur radio and if I can help you in any way just e-mail me.

73 Fred

<stryped@hotmail.com> wrote in message
news:1103577722.434508.43940@f14g2000cwb.googlegroups.com...
> New to ham radio. Interested in building an antenna for a base station.
> I dont have anything yet, just in the planning stage.
>
>
> Thought about buying a handheld and using that as part of my "base
> station" one maybe capable of 2 440 and 6. These seem cheaper used than
> the home units.
>
>
> My question is, is there information out there on how to build one? I
> have a radio shack book at home that has a plan for a 440. It uses
> aluminum ground wire. What I find when working with this stuff is it is
> impossible to make it perfectlyu straight. Doesn't that effect the
> performance? I mean it comes coiled and when I cut it to length I cant
> get it perfectly straight.
>
>
> Also, it is posisble to have good performance with one antenna for all
> the bands? Or is it absolutely necessary to have one antenna for each
> band? I have limited room.
>
>
> I appreciate your help!
>

# 4011. Re: J pole vs yagi for base

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-21 23:18:13 UTC
From: arrow146@aol.comjunk.com
Message-ID: <20041221181813.21925.00002447@mb-m06.aol.com>
Source record: 84908

>>I would ideally like to reach a repeater about 70 - 80 miles away from
>>me.

How many miles away don't mean much.

I have no problem reaching a repeater 100 miles away with only
5 watts & a Open Stub J-Pole. BUT, this is a big BUT.
My location in Cheyenne WY is 1000 feet higher than Denver,
and the repeater is on a mountain top 3000 feet above Denver.
That is true line of sight if you could see that far.

Now if you live in the flat lands of NE with antennas only 30 to 50 feet
high. You would be lucky to get 40 miles with 50 watts.
If you live in a valley in the mountains you may only get 4 or 5 miles.

It all comes down to Location, Location, Location.

73 Al Lowe N0IMW

Arrow Antenna

# 4012. Re: Why Match ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-21 23:25:36 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <s63cs0dnt2b4qj38re5s69dj7kguji75qg@4ax.com>
Source record: 84909

On Tue, 21 Dec 2004 22:51:30 +0000, Ian Jackson
<IanJacksonRemoveThisBit@g3ohx.demon.co.uk> wrote:

>In message <5mqbs0ho36iqfcua1br7javftjh0p2b042@4ax.com>, Richard Clark
><kb7qhc@comcast.net> writes
>>On Tue, 21 Dec 2004 20:27:54 +0000, Ian Jackson
>><IanJacksonRemoveThisBit@g3ohx.demon.co.uk> wrote:
>>
>>>>However, this is not the best design for a
>>>>matching network, they are usually three resistors in either a PI or T
>>>>configuration.
>>>Several manufacturers of precision matching pads might disagree!
>>
>>Hi Ian,
>>
>>I seriously doubt it, but you are free to offer examples.
>>
>>73's
>>Richard Clark, KB7QHC
>+ many, many more!
>Ian.

Hi Ian,

Perhaps you can share from those many, many more, those which
disagree?

73's
Richard Clark, KB7QHC

# 4013. Re: Newbie antenna help

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-22 00:08:51 UTC
From: Jack Painter <223bthp@cox.net>
Message-ID: <oW2yd.15182$7p.10432@lakeread02>
Source record: 84910

"Roy Lewallen" <w7el@eznec.com> wrote
> Jack Painter wrote:
> >
> > Nice site. Except for the inaccurate advice warning of disastrous
effects
> > from operating a J-Pole w/o a BalUn. I use neither a BalUn nor any
> > coiled-feedline as a choke. If my feedline is radiating, it's the most
> > efficient feedline radiator ever made, getting loud and clear 100 mile
> > coverage on VHF Marine between other high sites, and surface contacts
> > between 20-30 nautical miles depending on height of vessels antenna. . .
>
> The problem is that without the balun, the feedline is part of the
> antenna. So anyone trying to get the same results as you do has to use
> the same length of feedline, position it the same, and maybe even ground
> his rig the same way you do. (That is, have the same path from the rig
> to the Earth through the power wiring.) If he does it differently and
> happens to not be as lucky as you, he could take a bit of a beating in
> field strength. And both of you could be running the risk of causing RFI
> if you're running significant power and your feedline runs close to
> house or telephone wiring.
>
> If a balun is used (actually, two are likely necessary, spaced about a
> quarter wavelength apart), only the J-Pole will radiate, and the user
> won't have to worry about lucking out and having just the right feedline
> and orientation.
>
> I think the reason some people love J-Poles and some hate them is that
> some, like you, have been lucky with feedline length and placement and
> some haven't. I prefer to depend on design rather than luck to make my
> antennas work, but lots of folks are perfectly happy to just roll the
dice.
>
> Roy Lewallen, W7EL

Hi Roy, thanks for the comments. It certainly may be luck as you say, but if so it is exceptional luck ;-) 25 watt marine transceivers rarely perform as well as mine does in this setup. So well that it is highly unlikely that the sixty odd feet of 9913 feedline radiates much if at all. The original configuration had the horizontal (with later vertical drops to ground rods) lightning down conductors added last year, replacing a simple static ground. Coaxial lightning surge arrestor was also added, with shield-grounding. None of these alterations made any noticeable change in the antenna's long range receive and transmit performance. There never was any connection between the transceiver and AC power, using instead a 12vdc deep cell battery with a 12v

charger floating the battery.

73,
Jack Painter

# 4014. Antennas vs Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-22 00:15:53 UTC
From: Jim <IHateSpam@NoSpam.net>
Message-ID: <R03yd.1312$v_.1114@fe61.usenetserver.com>
Source record: 84911

From Kraus' 'Antennas', first edition, footnote on page 1:

In its zoological sense, and antenna is the feeler, or organ of touch, of an insect. According to usage in the United States the plural of "insect antenna" is "antennae," but the plural of "radio antenna" is "antennas". However, the usage in England makes no distinction, the plural of both "insect" antenna" and "radio antenna" being "antennae."

**********

So for those not native to the USA or England, it depends on where your English teaher came from, I guess.

Jim
N8EE

# 4015. Re: Why Match ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-22 00:19:12 UTC
From: Ian Jackson <IanJacksonRemoveThisBit@g3ohx.demon.co.uk>
Message-ID: <3XiIdVAA2LyBFwYj@g3ohx.demon.co.uk>
Source record: 84912

In message <s63cs0dnt2b4qj38re5s69dj7kguji75qg@4ax.com>, Richard Clark
<kb7qhc@comcast.net> writes
>On Tue, 21 Dec 2004 22:51:30 +0000, Ian Jackson
><IanJacksonRemoveThisBit@g3ohx.demon.co.uk> wrote:
>
>>In message <5mqbs0ho36iqfcua1br7javftjh0p2b042@4ax.com>, Richard Clark
>><kb7qhc@comcast.net> writes
>>>On Tue, 21 Dec 2004 20:27:54 +0000, Ian Jackson
>>><IanJacksonRemoveThisBit@g3ohx.demon.co.uk> wrote:
>>>
>>>>However, this is not the best design for a
>>>>matching network, they are usually three resistors in either a PI or T
>>>>configuration.
>>>>Several manufacturers of precision matching pads might disagree!
>>>
>>>Hi Ian,
>>>
>>>I seriously doubt it, but you are free to offer examples.
>>>
>>>73's
>>>Richard Clark, KB7QHC
>>+ many, many more!
>>Ian.
>
>Hi Ian,
>
>Perhaps you can share from those many, many more, those which
>disagree?
>
>73's
>Richard Clark, KB7QHC

The point I was trying to make was, if the L-pad was 'not the best
design for a matching network', why are there so many about?
It gives the minimum loss for a match in both directions (with the 43and
86 ohm resistors). What works better?
Ian.
--

# 4016. Re: J pole vs yagi for base

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-22 00:32:26 UTC
From: glc1173@aol.com
Message-ID: <20041221193226.06016.00001479@mb-m21.aol.com>
Source record: 84913
Body handling: HTML body converted to readable text

Alex wrote:
>As for performance, you can make just >about anything that the commercial
>manufacturers can. It might cost more or >less depending on your skills and
>what you have available for materials.

It will also depend - a lot - on what you have available in tooling. That's why J-poles and quagis are favorite do-it-yourself 2M antennas - you can easily make either, and well, with typical home hand tools.
N4GSV

~~~~~~~~~~~~~~~~~~~~
Dissident news - plus immigration, gun rights, weather, Internet Gun Show
ALAMANCE INDEPENDENT:
official newspaper of the Vast Right Wing Conspiracy
~~~~~~~~~~~~~~~~~~~~

# 4017. Re: J pole vs yagi for base

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-22 01:28:19 UTC
From: Bob Miller <rmiller47@satx.rr.com>
Message-ID: <fajhs0lniq5cmilqn6fso6c4t0vtsiiv0j@4ax.com>
Source record: 84914

On 21 Dec 2004 23:18:13 GMT, arrow146@aol.comjunk.com (N0IMW) wrote:

>>>I would ideally like to reach a repeater about 70 - 80 miles away from
>>>me.
>
>How many miles away don't mean much.
>
>I have no problem reaching a repeater 100 miles away with only
>5 watts & a Open Stub J-Pole. BUT, this is a big BUT.
>My location in Cheyenne WY is 1000 feet higher than Denver,
>and the repeater is on a mountain top 3000 feet above Denver.
>That is true line of sight if you could see that far.
>
>Now if you live in the flat lands of NE with antennas only 30 to 50 feet
>high. You would be lucky to get 40 miles with 50 watts.
>If you live in a valley in the mountains you may only get 4 or 5 miles.
>
>It all comes down to Location, Location, Location.
>
>73 Al Lowe N0IMW
>
>Arrow Antenna

I seem to recall, back in the 70s, driving to the top of Pikes Peak,
and bringing up repeaters all over Colorado :-)

bob
k5qwg

# 4018. Re: Would EMT be good for antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-22 01:28:41 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <Y34yd.863$%3.387@bignews6.bellsouth.net>
Source record: 84915

<stryped@hotmail.com> wrote in message
news:1103639558.139643.147670@c13g2000cwb.googlegroups.com...
> I am new to ham radio and am trying to learn about antenna building. I
> have the capability to weld at home very thin material. Was wondering
> if EMT conduit would be good for making an antenna? It seems light
> weight and resists corrosion and is weldable.
>
> I need somethign that will last. I will be putting it on top of my tv
> tower and I am afraid of heights. I only want to do this once.
>

I've used EMT several times successfully - mostly for 10-meter work. I
didn't weld on them - just cut and drilled.
I expect welding would destroy the galvanizing and cause corrosion - unless
you plan to re-coat those areas with zinc.
One vertical dipole I made used a pvc junction box between the 2 EMT pieces.
I fed the coax thru one of the EMT ends thru to the junction box, where I
connected the coax to the conduit using stakon terminals and sheet-metal
screws.
The dipole was suspended from a tall tree branch. - and worked great for
years.

---
Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.818 / Virus Database: 556 - Release Date: 12/17/2004

# 4019. Re: Why Match ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-22 01:54:59 UTC
From: W9DMK <w9dmk@crosslink.net>
Message-ID: <41c8d3cf.17707912@news.crosslink.net>
Source record: 84916

On Tue, 21 Dec 2004 21:54:30 GMT, Richard Clark <kb7qhc@comcast.net>
wrote:

>On Tue, 21 Dec 2004 21:16:03 GMT, W9DMK<w9dmk@crosslink.net> (Robert
>Lay) wrote:
>
>> It has been suggested that a
>>virtue of the T pad would give a clean 6 dB loss instead of some
>>"not-so-nice" loss, like 5.7 dB. Well, that's not a problem because
>>the L-Pad can also be designed for exactly 6 dB. In fact, it can be
>>designed to provide ANY loss you want, so long as it's AT LEAST 5.7
>>dB. You see, the 5.7 dB L-Pad happens to be the MINIMUM loss design
>>for that particular mismatch.
>
>Hi Bob,
>
>The difference between 5.7 and 6dB is immaterial if neither is
>calibrated. As for the desire for a nominal 6dB pad, that too is
>hardly of great merit for quality measurements with a good Spectrum
>Analyzer.
>
>Just like directional coupler design, precision applications focus on
>directivity and sacrifice round numbers in coupling to achieve better
>separation of ports. A 6dB attenuator will isolate your precision
>gear from the unknown better than a 3dB attenuator, but not as well as
>a 10 or 20dB attenuator.
>
>Now, as to the term isolation. It has a variety of meanings which in
>this case means that your measurement is less perturbed by the literal
>unknowns of your proverbial unknown being measured. That is, in your
>attempt to find a value (the proverbial unknown) your accuracy can be
>upset by variables whose magnitude can affect that accurate
>determination. Large attenuators obviously de-sense the
>instrumentation, but if you have sufficient dynamic range, then that
>is not a debit, but actually an asset. Hence de-sense or isolation is
>benign. When this large attenuator is placed on the source, it
>reduces the load's influence to pull or mismatch there too.
>
>This says nothing of actual mismatches, it simply presents what is
>called swamping. That is, you introduced known and controlled losses
>to buffer the measurement. Later you can subtract out the losses to
>find your proverbial unknown.
>
>I already alluded to the virtue of using attenuators to increase the

>power tolerance to the input of a Spectrum Analyzer, aside from this,
>the only practical use of attenuators is to introduce controlled loss
>to isolate the unknowns' influence.
>
>To answer "Why Match?" returns us to isolation. Once this is
>achieved, the measurement can be trusted to be faithful in proportion
>to that isolation. With this example of a simple 50 to 75 Ohm
>conversion, that measurement's faithful accuracy is fairly good. As
>for it being a ~6dB attenuator, by placing it into another test with
>an unknown, it will offer mixed results - a T or PI configuration at a
>higher attenuation would be far more flexible, and faithful.
>
>73's
>Richard Clark, KB7QHC

Dear Richard,

OK - you're not getting any argument from me.

Bob, W9DMK, Dahlgren, VA
http://www.qsl.net/w9dmk

## 4020. tnx/tvi??Transmitting from hotel bedrooms.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-22 02:27:32 UTC
From: ml <m@dti.net>
Message-ID: <m-CCB9F8.21273321122004@news.verizon.net>
Source record: 84917

thanks for all the cool tips , seems like i am trying to work in a less
than ideal condition perhaps a dipole or random wire might be all i
can do regardless of how poor it might be ie if the hotel is metal ...

but surprized nobody touched the TVI issue , so of the few
suggestions made here, any idea which is , isn't the best for
avoiding tvi and any tips on how i can minimize tvi , in general w/a
for ex center fed coax dipole (i'll be using a mac200)tuner

thanks again all

In article <cq7436$dv8$1@sparta.btinternet.com>,
"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote:

> I have had some experience of this. I used a home-brew, transportable,
> aluminium, attache-case 30-watt transceiver. Still got it. It still works.
> But these days it is only of strong sentimental value.
>
> In hotel bedrooms the best antenna by far, is a length of thin, plastic
> insulated, flexible, multi-strand wire. tossed out of the bedroom window.
> Allow it to dangle down alongside the wall for as far as possible,
> consistent with your ideas of what the neighbourhood will put up with before
> complaints are heard.
>
> I always asked, with a nice smile when I had gleaming teeth, the young lady
> hotel receptionist for a room on the highest floor possible, at the rear of
> the hotel. The wire could then dangle down as far as just above the trash
> bins outside the open rear door of the hotel's kitchen.
>
> If one is staying at the hotel for several days its a good idea to make
> friends with the Chef, buy him a drink or two in the bar in his off-duty
> hour. This ensures there will be no interference to arrangements at the
> lower end of the antenna in the vicinity of the trash bins.
>
> To feed the top end of a vertical wire still requires a ground connection.
> So use one or more copper pipes in the hotel's plumbing and central heating
> system. Don't forget to include in the tool kit a big alligator clip, with
> flexible wire already soldered to it, or two clips, to make the desired
> connection to ground.
>
> On one occasion, from a high multi-floor building, I was able to tell the
> disbelieving fellow at the other end of the QSO I was using a top-fed
> 3/8-wave vertical antenna on the 160 metre band. Which was quite true.
>
> But if you like experimenting with small, hotel-room antennas, without

> opening the windows, then try a very short, centre-loaded, horizontal
> dipole. The loading coil is the most awkward component to pack into your
> travelling bag when you walk into the hotel. Use drawing pins or small nails
> to anchor the dipole ends to the wall-paper, door posts or ceiling. Don't
> forget to take with you a small hammer.
>
> Seriously now, a short centre-loaded dipole is the electric counterpart of
> the small magnetic loop. Like the magloop it can be most effective at one
> particular resonant frequency although it cannot be tuned except by pruning
> the overall length of the wire loading tails.
>
> Download program MIDLOAD from website below for design of a centre-loaded
> antenna, including coil design, diameter and length of coil former and
> number of turns. There are several different ways of feeding it, either with
> coax or balanced-twin feedlines.
> ----
> .....................................................
> Regards from Reg, G4FGQ
> For Free Radio Design Software go to
> http://www.btinternet.com/~g4fgq.regp
> .....................................................

# 4021. Re: Would EMT be good for antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-22 02:36:29 UTC
From: Jim <IHateSpam@NoSpam.net>
Message-ID: <E45yd.7680$VQ2.6466@fe39.usenetserver.com>
Source record: 84918

"AB2RC" <AB2RC@localhost.localdomain> wrote in message
news:slrncsh28l.m1k.AB2RC@localhost.localdomain...
> On 2004-12-21, stryped@hotmail.com <stryped@hotmail.com> wrote:
>> Where do you purchase the aluminum form?
>
> Hardware mega mart -- home depot, lowes, ace, or your local hardware
> store.
>
> Just about anything you might want for building antennas can be found in
> the
> electrical, plumbing or assorted hardware aisles.
>
>
> --
> Alex / AB2RC
> Linux is user friendly, however it is not idiot friendly

The aluminum available at these stores off the shelf is not T6061. For the new comers, Aluminum is specified by what other metals are mixed in with it making it an alloy. T6061 alloy is what is used for anything that has to be both strong and light, like antennas, airplanes, etc. The stuff sold in the hardware megastores is too soft for anything except relatively small antennas. I had some aluminum tubing nested together to about 18 ft tall, and it got bent in a strong wind and eventually broke.

One other point, EMT is soft so don't think that just because it is made of steel that it won't get bent. I also think it is more brittle than aluminum (if someone wants to dispute this, go ahead---its just my conjecture) and will be more likely to break in gusty winds.

Jim
N8EE

# 4022. Re: Why Match ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-22 05:55:39 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <do6cs01vt2hivs7oe9ps4eo1jql5npkcde@4ax.com>
Source record: 84919

On Wed, 22 Dec 2004 00:19:12 +0000, Ian Jackson
<IanJacksonRemoveThisBit@g3ohx.demon.co.uk> wrote:

> The point I was trying to make was, if the L-pad was 'not the best
>design for a matching network', why are there so many about?
>It gives the minimum loss for a match in both directions (with the 43and
>86 ohm resistors). What works better?
>Ian.

Hi Ian,

The topic is Why Match? and the context is with bench gear,
specifically a Spectrum Analyzer. It is pleasing that no sardonic
quips as to this device's suitability for antenna matching has sallied
forth. Attenuators serve a limited purpose - Isolation. They serve
this well when they don't introduce uncontrolled error. They also
serve as range extenders as do directional couplers, often with
attenuators paired with them.

In the case of using them with couplers, they insure port isolation by
insuring port loading. They buffer any deviance from an expected 50
Ohm load that may be presented by monitoring gear attached through
them to that port. This is by and large the context of the mini
circuits links you offered. The extent of this "insurance" can be
observed by computing how much load is presented to the affected
instrument when the attenuator is left open, or shorted. T or PI
configurations show a higher tolerance. An L Pad is a special case
(less general form) of either T or PI, being that one of the three
elements is replaced with either a short or an open.

73's
Richard Clark, KB7QHC

# 4023. Re: Antennas vs Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-22 06:33:40 UTC
From: Rob <roblitespeed@hotmail.com>
Message-ID: <8z8yd.1423$F67.638@newssvr12.news.prodigy.com>
Source record: 84920

"Jim" <IHateSpam@NoSpam.net> wrote in message
news:R03yd.1312$v_.1114@fe61.usenetserver.com...
> From Kraus' 'Antennas', first edition, footnote on page 1:
>
> In its zoological sense, and antenna is the feeler, or organ of touch, of
an
> insect. According to usage in the United States the plural of "insect
> antenna" is "antennae," but the plural of "radio antenna" is "antennas".
> However, the usage in England makes no distinction, the plural of both
> "insect" antenna" and "radio antenna" being "antennae."
>
>
> **********
>
> So for those not native to the USA or England, it depends on where your
> English teaher came from, I guess.
>
>
> Jim
> N8EE

I think in England it's "aerials".
Rob

# 4024. Re: Newbie antenna help

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-22 06:36:36 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <EA8yd.1085$%3.162@bignews6.bellsouth.net>
Source record: 84921

<stryped@hotmail.com> wrote in message
news:1103577722.434508.43940@f14g2000cwb.googlegroups.com...
> New to ham radio. Interested in building an antenna for a base station.
> I dont have anything yet, just in the planning stage.
>
>
> Thought about buying a handheld and using that as part of my "base
> station" one maybe capable of 2 440 and 6. These seem cheaper used than
> the home units.
>
>
> My question is, is there information out there on how to build one? I
> have a radio shack book at home that has a plan for a 440. It uses
> aluminum ground wire. What I find when working with this stuff is it is
> impossible to make it perfectlyu straight. Doesn't that effect the
> performance? I mean it comes coiled and when I cut it to length I cant
> get it perfectly straight.
>
>
> Also, it is posisble to have good performance with one antenna for all
> the bands? Or is it absolutely necessary to have one antenna for each
> band? I have limited room.
>

If you go to the ARRL web page, you can find a very good antenna book. It
well worth the price. One of the fun aspects of being a ham is experimenting
with and building antennas (or is it antennae) . To enhance your fun with
expermenting one of your first purchases (after a radio) might be an antenna
analyzer like the MFJ 259 . You'll find yourself experimenting with matching
sections and different transmision lines as well. You can be an antenna nerd
in no time!

---
Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.818 / Virus Database: 556 - Release Date: 12/18/2004

# 4025. Re: Why Match ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-22 06:40:11 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <c0scs0pur4ikfalsb6bih3vdcrsmpprbbr@4ax.com>
Source record: 84822

On Wed, 22 Dec 2004 00:19:12 +0000, Ian Jackson
<IanJacksonRemoveThisBit@g3ohx.demon.co.uk> wrote:
> What works better?

Hi Ian,

In following up the links that you provided, there is a superior
reference found at the same site:
http://www.minicircuits.com/appnote/an70001.pdf
which in turn leads to a treasure trove on the topic that supports my
favorite discussion on Mismatch Uncertainty. By following the links,
they offer you articles and software to compute the accumulation of
errors (and loss) found in mismatched sources looking at mismatched
loads.

A notable quote:
"A fixed attenuator can help to lower the VSWR of cascaded
(connected) components by providing isolation between the
impedances, effectively masking the impedance mismatches."

For both mismatched source and load, one handy shortcut offered is
that the system suffers a SWR that is not the aggregation of the two,
but the multiple of the two. This is not particularly significant for
a source SWR of 2 seeing a load SWR of 2 (same result of 4 for either
addition or multiplication), but above this value and loss begins to
climb dramatically.

73's
Richard Clark, KB7QHC

# 4026. Re: Antennas vs Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-22 08:07:57 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <UzO7FiCdtSyBFAfd@ifwtech.co.uk>
Source record: 84823

Jim wrote:
>From Kraus' 'Antennas', first edition, footnote on page 1:
>
>In its zoological sense, and antenna is the feeler, or organ of touch,
>of an insect. According to usage in the United States the plural of
>"insect antenna" is "antennae," but the plural of "radio antenna" is
>"antennas". However, the usage in England makes no distinction, the
>plural of both "insect" antenna" and "radio antenna" being "antennae."
>
But remember that was the *first* edition of Kraus, reflecting the usage of a half-century ago.

At that time, the word over here was "aerial"; and also "wireless" rather than "radio". "Antenna" was a new Americanism, and we hadn't really decided what to do with it.

Individual preferences ruled quite strongly - and were very much influenced by the preferences of one's former Latin master. I recall a college friend who was determined to speak of "owdio" and "widayo", because that's how he'd been taught to pronounce those words. "Antennae" was just another of those Latinate plurals, but was never in wide use by British engineers.

Today, we generally use the American terms for engineering (including amateur radio) and save the Ancient British language for older people and arts graduates.

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

# 4027. Body Worn Antenna UHF Range

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-22 11:53:39 UTC
From: pedroclaro@gmail.com
Message-ID: <1c732ffa.0412220353.5512a61f@posting.google.com>
Source record: 84824

Greetings,

I'm currently developing a project which requires a specialized antenna. The system consists in a sensor equipped suit that delivers the data to a server. I'm having problems findind a suitable antenna for the suit, since it requires to be integrated on the suit or in a backpack (whip antennas are out of the question, since the suit can't have any holes). The main problem is the human body effect and the size constraints. Gain is also a major requirement since the range of the operations will be 400 meters with line of sight.
(Server side: 10 dBm Tx Power and a 6 dB whip antenna, Suit side: -96 dBm sensibility- freq:433 MHz)

I've tried a patch antenna (similar to the one provided by linx technologies) but it didn't perform well. I've also tried a small whip antenna but the ground plane dimensions aren't suitable for integrating this type of antennas in the backpack. I've also found a dipole body worn antenna ( http://www.panorama.co.uk )., but I'm not sure of its performance. Currently I'm trying to develop my own antenna, which consists of a pcb small loop antenna. I'm asking for sugestions and maybe antenna references for this type of application.

Thanks in advance.

# 4028. dipole rfi/tvi reduction

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-22 12:04:21 UTC
From: ml <m@dti.net>
Message-ID: <m-A1F0AD.07042222122004@news.verizon.net>
Source record: 84825

Hi

was wondering if their was anything that could be done (antenna/feedline wise) to reduce chances of giving off interference from any type of wire antennas

such as for ex a center fed coax fed dipole i'll use a 1:1balun at the end, try to make dipole resonant

i believe the coax run should also be within 1/2wave or so

(everying at radio end is ok , good grounds ,tuner etc)

any tips??

# 4029. Re: dipole rfi/tvi reduction

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-22 12:21:23 UTC
From: Floyd Sense <fsense@copper.net>
Message-ID: <41c9670d$1_5@newsfeed.slurp.net>
Source record: 84826

Depends on what you mean by "giving off interference". In my experience, most interference situations today involving HF are the result of a perfectly clean fundamental HF signal being detected by an appliance or other electronic device which should be rejecting such signals. There's nothing you can do to your HF station to minimize that other than to increase the separation between the HF antenna and the device experiencing the interference (or reduce the transmitted power). Depending upon the device in question, use of bypass caps on the AC line and/or ferrite chokes on the line cord and other external leads MAY provide relief. It's certainly possible that feedline radiation is contributing to the problem and in that case judicious use of a balun and proper grounding may provide some relief.

K8AC

"ml" <m@dti.net> wrote in message
news:m-A1F0AD.07042222122004@news.verizon.net...
> Hi
>
> was wondering if their was anything that could be done (antenna/feedline
> wise) to reduce chances of giving off interference from any type of
> wire antennas
>
> such as for ex a center fed coax fed dipole i'll use a 1:1balun at
> the end, try to make dipole resonant
>
> i believe the coax run should also be within 1/2wave or so
>
> (everying at radio end is ok , good grounds ,tuner etc)
>
> any tips??

# 4030. Re: Newbie antenna help

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-22 13:51:12 UTC
From: stryped@hotmail.com
Message-ID: <1103723472.181965.122200@f14g2000cwb.googlegroups.com>
Source record: 84827

W4JLE wrote:
> For two meters and 440 I would suggest a J-pole. If you look on the
arrow
> antenna site http://www.arrowantennas.com/j-pole.html
> He gives you the information to build your own. FM by mutual
agreement is
> vertical where sideband is horizontal. This relationship is used on
VHF and
> UHF.
>
> On 6 meters a simple dipole will get you started. Use the formula
> 468/desired frequency in MHz equals the total wire length in feet.
Make it a
> little longer for adjustment purposes then cut it in half. Add a
center
> insulator and end insulators. At low power (<=100 watts) use pieces
of PVC
> pipe. Tie the shield of the coax to one side of center and the center
> conductor to the other.
>
> Welcome to amateur radio and if I can help you in any way just e-mail
me.
>
> 73 Fred
>
> <stryped@hotmail.com> wrote in message
> news:1103577722.434508.43940@f14g2000cwb.googlegroups.com...
> > New to ham radio. Interested in building an antenna for a base
station.
> > I dont have anything yet, just in the planning stage.
> >
> >
> > Thought about buying a handheld and using that as part of my "base
> > station" one maybe capable of 2 440 and 6. These seem cheaper used
than
> > the home units.
> >
> >
> > My question is, is there information out there on how to build one?
I
> > have a radio shack book at home that has a plan for a 440. It uses
> > aluminum ground wire. What I find when working with this stuff is
it is
> > impossible to make it perfectlyu straight. Doesn't that effect the

> > performance? I mean it comes coiled and when I cut it to length I
cant
> > get it perfectly straight.
> >
> >
> > Also, it is posisble to have good performance with one antenna for
all
> > the bands? Or is it absolutely necessary to have one antenna for
each
> > band? I have limited room.
> >
> >
> > I appreciate your help!

I like the looks of that. I wonder if I could use stainless? Is it
necessary to use a balun on that?

At the same height, what would the difference be between this one and a
6 element yagi?

What are those red things on the top? They look like wire twisters.
> >

# 4031. Re: Newbie antenna help

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-22 13:53:11 UTC
From: stryped@hotmail.com
Message-ID: <1103723591.398689.130140@f14g2000cwb.googlegroups.com>
Source record: 84828

I just realized, on that website it does not say the spacing between elements, only the length of the elements. How would I find out that?

# 4032. Re: Newbie antenna help

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-22 14:06:26 UTC
From: Jack Painter <223bthp@cox.net>
Message-ID: <Dbfyd.15923$7p.8027@lakeread02>
Source record: 84829

<stryped@hotmail.com> wrote

> I just realized, on that website it does not say the spacing between
> elements, only the length of the elements. How would I find out that?

22/freq (in Mhz)

See: http://www.hamuniverse.com/jpole.html

Roy has pointed out that a Balun is a good idea. The above site recommends at least 4 coils of feedline at the feedpoint as an RF choke. I used neither and had phenomenal "luck" with a 60' feedline and later added full lightning protection with no detectable change in the prop.

Jack Painter
Virginia Beach VA

# 4033. Re: tnx/tvi??Transmitting from hotel bedrooms.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-22 15:03:43 UTC
From: jgboyles@aol.com
Message-ID: <20041222100343.10458.00001660@mb-m25.aol.com>
Source record: 84830

>but surprized nobody touched the TVI issue , so of the few
>suggestions made here, any idea which is , isn't the best for
>avoiding tvi and any tips on how i can minimize tvi

Hi, I would think the reason no one touched on the TVI issue, is that it is almost unavoidable. TVI is caused by RF getting in the TV antenna terminals and causing overload of the TV front end, or rf getting into the AC power cable feeding the TV.
What you are attempting is to produce enough RF energy for communications, but not enough to cause TVI. The first thing I would try is reduce transmitter power to a point where the TVI is not there. Communications probably won't be there either. Low power CW would be the best mode. Least TVI, best chance of being heard.
Get the antenna as far away from the TV and building wiring as possible. Outside the building would be best. Make sure only the antenna radiates, not the transmission line. Use a choke balun on the transmission line. Some TVI filters on the TV might help, but if your antenna is inside the building you will probably get into the TV distribution system. This will insure that you are messing up every TV in the Hotel.
Every time I have tried to operate with the antenna inside the room, I have experienced TVI. Usually it's not that bad even at 100 watts, but it is still there even with 10 watts. My solution was not to worry about TVI cause I did not transmit that much. With the antenna in the room, performance was so poor I couldn't hear anyone to talk to.

73 Gary N4AST

# 4034. Re: Body Worn Antenna UHF Range

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-22 15:28:10 UTC
From: fractenna@aol.com
Message-ID: <20041222102810.21753.00001849@mb-m12.aol.com>
Source record: 84831

>Greetings,
>
>I'm currently developing a project which requires a specialized
>antenna. The system consists in a sensor equipped suit that delivers
>the data to a server. I'm having problems findind a suitable antenna
>for the suit, since it requires to be integrated on the suit or in a
>backpack (whip antennas are out of the question, since the suit can't
>have any holes). The main problem is the human body effect and the
>size constraints. Gain is also a major requirement since the range of
>the operations will be 400 meters with line of sight.
>(Server side: 10 dBm Tx Power and a 6 dB whip antenna, Suit side: -96
>dBm sensibility- freq:433 MHz)
>
>I've tried a patch antenna (similar to the one provided by linx
>technologies) but it didn't perform well. I've also tried a small whip
>antenna but the ground plane dimensions aren't suitable for
>integrating this type of antennas in the backpack. I've also found a
>dipole body worn antenna ( http://www.panorama.co.uk )., but I'm not
>sure of its performance. Currently I'm trying to develop my own
>antenna, which consists of a pcb small loop antenna. I'm asking for
>sugestions and maybe antenna references for this type of application.
>
>Thanks in advance.
>

I am not aware of any publicly available info that would aid you on this. There
are paths to solutions, but you won't find them on a radio amateur NG.

73,
Chip N1IR

# 4035. Re: Body Worn Antenna UHF Range

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-22 17:18:16 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <ta7js0db6i0ja76k81uc30pu22u3lc58i2@4ax.com>
Source record: 84832

On 22 Dec 2004 03:53:39 -0800, pedroclaro@gmail.com (icelord) wrote:

>(whip antennas are out of the question, since the suit can't
>have any holes).

Hi OM,

I don't see what holes have to do with your problem unless the suit is not of fabric but made of laminar plastic, say (very uncomfortable if so).

>The main problem is the human body effect and the
>size constraints. Gain is also a major requirement since the range of
>the operations will be 400 meters with line of sight.
>(Server side: 10 dBm Tx Power and a 6 dB whip antenna, Suit side: -96
>dBm sensibility- freq:433 MHz)

Size is not much of a constraint (for a dipole size of 34 cM). 400 meters is not that far for 10dBm (neglecting the "6 dB whip antenna"). Sensitivity suggests you can tolerate 106 dB path loss which would not be found in 400 meters distance (about 80dB path loss, less with "6 dB whip antenna"). This leaves something like 20 to 30dB headroom before you consider body proximity and its attendant loss.

> I've also found a
>dipole body worn antenna ( http://www.panorama.co.uk )., but I'm not
>sure of its performance.

It is simple enough to build and test certainly. There is absolutely nothing remarkable about it, and the molded plastic T contains only wire connections of the two conductors (coax) coming to it. Given your constraints, you don't have much choice in how it performs. If it doesn't work, you will have to move either the suit closer to your server, or the server closer to the suit (or increase power/sensitivity).

>Currently I'm trying to develop my own
>antenna, which consists of a pcb small loop antenna. I'm asking for
>sugestions and maybe antenna references for this type of application.

A small loop is not going to give you gain and putting it on a PCB is not a solution with any advantage. Such claims to the contrary (should you encounter them in the marketplace) are merely advertising hyperbole with no particular merit. The dipole your link leads to is the common reference against which all antennas are compared to and any loss suffered by its proximity to the body will be suffered by all others equally from the identical problem.

If this loss is intolerable, you must put some distance between it and the body, but aside from your "pack," you have painted such solutions out of the picture through your constraints.

As an aside. Your biggest problem will be with multi-path reception. The problem here is multiple reflections between and around the two antennas that will cancel the signal through any movement of your suit across a quarter wavelength (17 cM or so). This could be a mild problem, or it could be severe, or it could go unnoticed. This is all a function of reflective surfaces within that same range. The solution is multiple antennas performing in what is called "space diversity." Research this term as a key phrase in combination with the key word antenna. The rules are very simple and still within your implementation.

73's
Richard Clark, KB7QHC

# 4036. Re: Newbie antenna help

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-22 17:57:19 UTC
From: arrow146@aol.comjunk.com
Message-ID: <20041222125719.07938.00002471@mb-m07.aol.com>
Source record: 84833

>What are those red things on the top? They look like wire twisters.

>I just realized, on that website it does not say the spacing between
>elements, only the length of the elements. How would I find out that?

The little red things on top are just plastic caps.

Element spacing & element size are critical.
Check the "Parts Catalog" & the "Instructions"
for element spacing. It's all there, even a photo of the bracket.

If you change the diameter of the elements, you will need to start
over with the spacing to tune the antenna.

As for Stainless Steel, don't bother, been there, done that.
Tried making some out of Stainless Steel CB Whips.
A very noticeable difference in performance.

You really want to build your own ?
Buy one from Arrow Antenna, copy it,
then send it back for a refund. Only cost you for shipping.
Got to warn you though, I have not got one back yet.

73 Al Lowe N0IMW
<A HREF="http://ArrowAntennas.com/">ArrowAntennas.com</A>
Arrow Antenna

# 4037. Re: Body Worn Antenna UHF Range

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-22 18:07:35 UTC
From: Me <Me@shadow.orgs>
Message-ID: <Me-7D16FA.09074622122004@netnews.worldnet.att.net>
Source record: 84834

In article <20041222102810.21753.00001849@mb-m12.aol.com>,
fractenna@aol.com (Fractenna) wrote:

>
> I am not aware of any publicly available info that would aid you on this.
> There
> are paths to solutions, but you won't find them on a radio amateur NG.
>
> 73,
> Chip N1IR

What's this? Are you telling us that the "Fantastic Fractal Antenna"
isn't the solution to this, and, or all the worlds problems?????
How can this be?? I was under the impression that the "Fantastic
Fractal Antenna" was thr "Cats Meow" and could solve all our problems.

Me who wonders if the Sky will now Fall, or Hell Has Frozen Over....

# 4038. Re: Newbie antenna help

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-22 18:47:14 UTC
From: stryped@hotmail.com
Message-ID: <1103741234.454152.224820@c13g2000cwb.googlegroups.com>
Source record: 84835

N0IMW wrote:
> >What are those red things on the top? They look like wire twisters.
>
> >I just realized, on that website it does not say the spacing between
> >elements, only the length of the elements. How would I find out
that?
>
> The little red things on top are just plastic caps.
>
> Element spacing & element size are critical.
> Check the "Parts Catalog" & the "Instructions"
> for element spacing. It's all there, even a photo of the bracket.
>
> If you change the diameter of the elements, you will need to start
> over with the spacing to tune the antenna.
>
> As for Stainless Steel, don't bother, been there, done that.
> Tried making some out of Stainless Steel CB Whips.
> A very noticeable difference in performance.
>
> You really want to build your own ?
> Buy one from Arrow Antenna, copy it,
> then send it back for a refund. Only cost you for shipping.
> Got to warn you though, I have not got one back yet.
>
> 73 Al Lowe N0IMW
> <A HREF="http://ArrowAntennas.com/">ArrowAntennas.com</A>
> Arrow Antenna

Why would stainless steel provide different performance? Can you use
regular mild steel for the angle iron bracket? Maybe paint it so it
would not rust?

If you do change the element size, how do you determine the proper
spacing?

I appreciate your help! I like the design of the antenna and its
simplicity.

# 4039. Re: Would EMT be good for antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-22 19:08:17 UTC
From: stryped@hotmail.com
Message-ID: <1103742497.544319.110450@f14g2000cwb.googlegroups.com>
Source record: 84836

Would emt work for this? http://www.arrowantennas.com/j-pole.html

# 4040. Re: Newbie antenna help

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-22 19:34:58 UTC
From: The Enforcer <ENF@zilch.com>
Message-ID: <A%jyd.1935$Mw.964@fed1read06>
Source record: 84837

Just a suggetion -- go to a swap meet and buy your antennas for less than
the materials to build one

Or here is the scoop on yagi antenna design including a design program
http://www.hamuniverse.com/yagibasics.html

--
El Enforcer

# 4041. Re: Body Worn Antenna UHF Range

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-22 19:52:01 UTC
From: fractenna@aol.com
Message-ID: <20041222145201.12394.00002564@mb-m28.aol.com>
Source record: 84838

>What's this? Are you telling us that the "Fantastic Fractal Antenna"
>isn't the solution to this, and, or all the worlds problems?????
>How can this be?? I was under the impression that the "Fantastic
>Fractal Antenna" was thr "Cats Meow" and could solve all our problems.
>
>
>
>Me who wonders if the Sky will now Fall, or Hell Has Frozen Over....
>

What's this? A silly person who hides behind an idiot screen name?

If I wish to discuss fractal antennas, I will do so without hesitation and
great delight.
After all, the tide has long since rolled in...not that you've noticed:-)

You won't find any helpful info on BWA on this NG. It's not the right venue.

Go hide behind that rock again, Ol' fella!

73,
Chip N1IR

# 4042. How to print G4FGQ's program results.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-22 22:27:26 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cqcscd$io6$1@titan.btinternet.com>
Source record: 84839

I have been asked on quite a few occasions how to dump my programs to a printer. There appears not to be a simple way.

I have just uploaded to my website a procedure which at least works. It involves actually going via my website and using the "Paint" program which usually comes with Microsoft Windows. There may be other programs which will do the same thing. I am indebted to Jack, G3PVG for the basic procedure.

Interested? Go to "Dump Program Results to Printer" in the "Index" section on my website.
----
.....
Regards from Reg, G4FGQ
For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp
.....

# 4043. Re: How to print G4FGQ's program results.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-22 22:53:09 UTC
From: Ian Jackson <IanJacksonRemoveThisBit@g3ohx.demon.co.uk>
Message-ID: <PIT+MIMVrfyBFw$Z@g3ohx.demon.co.uk>
Source record: 84840

In message <cqcscd$io6$1@titan.btinternet.com>, Reg Edwards
<g4fgq.regp@ZZZbtinternet.com> writes
>I have been asked on quite a few occasions how to dump my programs to a
>printer. There appears not to be a simple way.
>
>I have just uploaded to my website a procedure which at least works. It
>involves actually going via my website and using the "Paint" program which
>usually comes with Microsoft Windows. There may be other programs which
>will do the same thing. I am indebted to Jack, G3PVG for the basic
>procedure.
>
>Interested? Go to "Dump Program Results to Printer" in the "Index" section
>on my website.
>----
>.....................................................
>Regards from Reg, G4FGQ
>For Free Radio Design Software go to
>http://www.btinternet.com/~g4fgq.regp
>.....................................................
>
>
Reg,
There's a problem with XP. It won't do a screen dump from a DOS program
(there's progress for you).
Ian.
--

# 4044. Re: How to print G4FGQ's program results.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-22 23:19:10 UTC
From: Ian Jackson <IanJacksonRemoveThisBit@g3ohx.demon.co.uk>
Message-ID: <+ANyuvRuDgyBFwJP@g3ohx.demon.co.uk>
Source record: 84841

In message <PIT+MIMVrfyBFw$Z@g3ohx.demon.co.uk>, Ian Jackson
<IanJacksonRemoveThisBit@g3ohx.demon.co.uk> writes
>In message <cqcscd$io6$1@titan.btinternet.com>, Reg Edwards
><g4fgq.regp@ZZZbtinternet.com> writes
>>I have been asked on quite a few occasions how to dump my programs to a
>>printer. There appears not to be a simple way.
>>
>>I have just uploaded to my website a procedure which at least works. It
>>involves actually going via my website and using the "Paint" program which
>>usually comes with Microsoft Windows. There may be other programs which
>>will do the same thing. I am indebted to Jack, G3PVG for the basic
>>procedure.
>>
>>Interested? Go to "Dump Program Results to Printer" in the "Index" section
>>on my website.
>>----
>>.....................................................
>>Regards from Reg, G4FGQ
>>For Free Radio Design Software go to
>>http://www.btinternet.com/~g4fgq.regp
>>.....................................................
>>
>>
>Reg,
>There's a problem with XP. It won't do a screen dump from a DOS program
>(there's progress for you).
>Ian.

Correction - Not when running full screen.
OK as a window.
Ian.
--

# 4045. Re: Antennas vs Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-22 23:19:50 UTC
From: Spike <gator2@webmail.co.za>
Message-ID: <32uec3F1ejl1vU1@individual.net>
Source record: 84842

Often a word can be mispelled or used
in a generally unique or gramatically
incorrect manner when a tongue-in-cheek
reference is made. Hence: antennae vice
antennas. 73s and 88s W6BWY

# 4046. Re: What is a good Screwdriver Antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-22 23:35:25 UTC
From: Jerry <joxendi@bellsouth.net>
Message-ID: <Uvnyd.97$525.36@bignews6.bellsouth.net>
Source record: 84843

"Shadow 998" <hrd998cc@nospam.yahoo.com> wrote in message
news:8Coxd.538$5R.229@newssvr21.news.prodigy.com...
> Hello All, I'm looking at installing my 706 G in the truck for HF use and
> am looking for suggestions as to which screwdriver antenna (or other?) you
> would recommend.
>
> It will go on a small truck.
>
> Thanks!
>
> Russ
> KG6TDX

May I suggest the Carolina Cyclone antenna? I am the builder of this product and I can save you a bit of money.
I build them of .065 wall aluminum, the coils are of black nylon and the wire is #14 tinned copper wound at 8 turns per inch. They are solid performers and come in 2" and 3" diameters. Most screwdrivers are basically the same, but one should avoid those that use PVC coil forms and flimsy contact stock. Mine have no PVC and all parts are machined for precise fit and finish. Before you purchase, won't you visit www.qsl.net/k4kwh . I can save you money on your purchase and give you pleasing asthetics and perfomance as well. The Carolina Cyclone has been shipped all over the USA and are serving well (www.eham.net) .

Best Wishes and Happy Holidays,

Jerry
K4KWH
>
>

# 4047. Re: Newbie antenna help

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-22 23:52:33 UTC
From: W4JLE <W4jle@w4jle.com>
Message-ID: <6Nnyd.149$v57.42@fe61.usenetserver.com>
Source record: 84844

Let me suggest that you order a copy of the ARRL Amateur Radio Handbook. Just like any other hobby, this one has a bible that answers most of the questions that come to mind. You can save yourself the delay of having to ask and wait for a reply.

To answer your questions.
A J-pole requires a balun to eliminate feed line radiation.

The difference between it and a yagi at the same height can be likened to a yard sprinkler vs. a hose nozzle. Same amount of water comes out the hose, the j-pole sprays the signal all around, the yagi is the hose nozzle. Are you trying to get a crowd wet, or a single person?

On VHF your more often limited by line of sight distance than signal strength. If your beyond line of sight, a gazillion watts or a 100 element beam won't help.

The red things keep you from poking your eyes out.

<stryped@hotmail.com> wrote in message
news:1103723472.181965.122200@f14g2000cwb.googlegroups.com...
>
> W4JLE wrote:
> > For two meters and 440 I would suggest a J-pole. If you look on the
> arrow
> > antenna site http://www.arrowantennas.com/j-pole.html
> > He gives you the information to build your own. FM by mutual
> agreement is
> > vertical where sideband is horizontal. This relationship is used on
> VHF and
> > UHF.
> >
> > On 6 meters a simple dipole will get you started. Use the formula
> > 468/desired frequency in MHz equals the total wire length in feet.
> Make it a
> > little longer for adjustment purposes then cut it in half. Add a
> center
> > insulator and end insulators. At low power (<=100 watts) use pieces
> of PVC
> > pipe. Tie the shield of the coax to one side of center and the center
> > conductor to the other.
> >
> > Welcome to amateur radio and if I can help you in any way just e-mail
> me.
> >
> > 73 Fred

> >
> > <stryped@hotmail.com> wrote in message
> > news:1103577722.434508.43940@f14g2000cwb.googlegroups.com...
> > > New to ham radio. Interested in building an antenna for a base
> station.
> > > I dont have anything yet, just in the planning stage.
> > >
> > >
> > > Thought about buying a handheld and using that as part of my "base
> > > station" one maybe capable of 2 440 and 6. These seem cheaper used
> than
> > > the home units.
> > >
> > >
> > > My question is, is there information out there on how to build one?
> I
> > > have a radio shack book at home that has a plan for a 440. It uses
> > > aluminum ground wire. What I find when working with this stuff is
> it is
> > > impossible to make it perfectlyu straight. Doesn't that effect the
> > > performance? I mean it comes coiled and when I cut it to length I
> cant
> > > get it perfectly straight.
> > >
> > >
> > > Also, it is posisble to have good performance with one antenna for
> all
> > > the bands? Or is it absolutely necessary to have one antenna for
> each
> > > band? I have limited room.
> > >
> > >
> > > I appreciate your help!
>
> I like the looks of that. I wonder if I could use stainless? Is it
> necessary to use a balun on that?
>
> At the same height, what would the difference be between this one and a
> 6 element yagi?
>
> What are those red things on the top? They look like wire twisters.
> > >
>

# 4048. Re: How to print G4FGQ's program results.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-23 00:01:24 UTC
From: Craig Buck <k4ia@cox.net>
Message-ID: <sVnyd.17679$7p.8841@lakeread02>
Source record: 84845

Look for Mr Snappy 95. It was made for Windows 95 but it works in XP to take a screen shot. I have used it to send someone a screen shot to show them their PSK signal. One source is http://www.nascanada.com/Software.htm Their description of it says: This is an older screen capture utility. But its very small and powerful and we have discovered that it works with Windows 95, 98, ME, NT, and 2000. It will probably work with XP as well. It can capture the whole screen, the active window, or a selectable area of the screen. It can put the captured image to a file, to the clip board, or you can print it out directly. This is a must have utility.
--
Radio K4ia
Craig "Buck"
Fredericksburg, VA USA
FISTS 6702 cc 788 Diamond 64

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message news:cqcscd$io6$1@titan.btinternet.com...
>I have been asked on quite a few occasions how to dump my programs to a
> printer. There appears not to be a simple way.
>
> I have just uploaded to my website a procedure which at least works. It
> involves actually going via my website and using the "Paint" program which
> usually comes with Microsoft Windows. There may be other programs which
> will do the same thing. I am indebted to Jack, G3PVG for the basic
> procedure.
>
> Interested? Go to "Dump Program Results to Printer" in the "Index"
> section
> on my website.
> ----
> ..........
> Regards from Reg, G4FGQ
> For Free Radio Design Software go to
> http://www.btinternet.com/~g4fgq.regp
> ..........
>
>

# 4049. Re: How to print G4FGQ's program results.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-23 00:14:41 UTC
From: John Smith <kd5yikes@mindspring.com>
Message-ID: <R5oyd.7523$RH4.4891@newsread1.news.pas.earthlink.net>
Source record: 84846

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:cqcscd$io6$1@titan.btinternet.com...
>I have been asked on quite a few occasions how to dump my programs to a
> printer. There appears not to be a simple way.
>
> I have just uploaded to my website a procedure which at least works. It
> involves actually going via my website and using the "Paint" program which
> usually comes with Microsoft Windows. There may be other programs which
> will do the same thing. I am indebted to Jack, G3PVG for the basic
> procedure.
>
> Interested? Go to "Dump Program Results to Printer" in the "Index"
> section
> on my website.
> ----
> ..........................................................
> Regards from Reg, G4FGQ
> For Free Radio Design Software go to
> http://www.btinternet.com/~g4fgq.regp
> ..........................................................

If running in a window in XP, you can capture the text in the window (after
the program has run) by clicking on the little symbol in the upper left
corner of the title bar. Select Edit, then select Select All, then press
enter to copy the text to the clipboard. Then you can paste into whatever
text editing program you choose.

I ran Selfres2 and followed the procedure above:

A. Length of coil, millimetres . 25.0 E. Leads length, mm .
25.0
B. Diameter of coil, millimetres 25.0 G. Line length, waves
10.000
C. Number of turns on coil ..... 4.0
D. Conductor/wire diameter, mm . 6.0 F. Test frequ, MHz ..
434.0000

Self capacitance of coil 0.85 pico-farads.
Extra capacitance due to leads 0.11 pico-farads, approximate.
Total capacitance across coil 0.96 pico-farads, with leads.
Self-resonant frequency of coil 331.1296 MHz, with no leads, in free
space.
Working resonant frequency 311.3992 MHz, with leads connected.

Coil inductance 0.3 micro-henrys at low frequencies.
Q of tuned circuit 951 at test frequency, approximate.

Choke impedance magnitude, Z 0.8 K-ohms, with leads, at test
freq.
Series resistive component of Z 0.0 K-ohms .. .. .. .. ..
Series reactive component of Z -0.8 K-ohms .. .. .. .. ..
Insertion loss of choke -21.8 decibels with a 20 -ohm load.

Winding pitch 6.3 millimetres.
Conductor Dia / Winding pitch 0.960
Total length of wire on coil 0.32 metres.

Vary Test Freq: Fast: 1,2 Slow: 3,4 Very slow: 5,6 Line length: O,P
Vary number of turns: 7,8 Vary Coil Length: 9,0 Vary Coil
Diameter: -,=
Change start data with keys A..G, S(tart again), Q(uit program) ...

I hope this helps.

John
KD5YI

## 4050. Re: Ladder line in a rotor loop?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-23 00:26:25 UTC
From: jgboyles@aol.com
Message-ID: <20041222192625.10328.00001577@mb-m25.aol.com>
Source record: 84847

>Is it possible? Sure, ought to work just fine. [Gary, make
>that 90 degrees for full 360 degree coverage - :)]

Hi Doc, You have 4 quadrants of 90 degrees, and a bi directional 180 degree antenna. You would have to rotate the antenna 180 degrees to get 360 degree coverage of the main lobes. If you only rotate 90 then there will be 90 degrees somewhere that will not get the benefit of the main lobe. Am I wrong?
73 Gary N4AST

# 4051. Re: tnx/tvi??Transmitting from hotel bedrooms.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-23 00:34:12 UTC
From: AaronJ <noemail@noemail.com>
Message-ID: <te3ks0p80s1u9tklh408s79lsotmg8bpad@4ax.com>
Source record: 84848

jgboyles@aol.com (JGBOYLES) wrote:

>I would think the reason no one touched on the TVI issue, is that it is
>almost unavoidable.

I would agree. And even if you're successful in your own hotel room at reducing TVI, that doesn't mean other rooms (a few feet away whether up, down or sideways) won't be picking you up. So when I operate out of a hotel room, I don't worry about TVI. Heck I'm not watching my TV when I operate anyway... ;)

BTW I use the same philosophy at my home station (with a stealth antenna). My neighbors have never complained of any TVI and I think the biggest reason is that they don't know I'm a ham.

Selfish? Perhaps. But as was pointed out previously, *my* signal is clean...

> Every time I have tried to operate with the antenna inside the room, I have
>experienced TVI. Usually it's not that bad even at 100 watts,

I think that 100 watts is a bit excessive inside a hotel room, but not so much for TVI as for radiation exposure to yourself and nearby neighbors. But I seldom had to use an inside the room antenna. I was almost always successful at sneaking a wire outside or clamping a hamstick out the window or to the balcony railing. I seldom run over 25 watts and since I always use CW that is usually sufficient for good solid QSOs.

>With the antenna in the room, performance was so poor
>I couldn't hear anyone to talk to.

That is usually always my biggest problem with hotel operating. Even with the outside antennas the QRN seems to always be exceptionally high. Probably all those electronic devices getting revenge. But still, I have much fun with this type of operation.

Current rig: TS50, small switching 10A power supply, 100' or so of no.22 wire, MFJ travel tuner, MFJ mini keyer, and all fits in a small computer suitcase. (The Hamstick is stolen off the car if necessary.)

# 4052. Re: How to print G4FGQ's program results.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-23 00:53:27 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cqd4u7$o9l$1@hercules.btinternet.com>
Source record: 84849

> Reg,
> There's a problem with XP. It won't do a screen dump from a DOS program
> (there's progress for you).
> Ian.
> --

==========

Ian, I just KNEW some bleeding thing would cock it up.

My system is Windows-98.

And, curses, my brand new standby lap-top has Windows-XP which I didn't try it out on.

Very likely future versions of Windows won't be interested in DOS at all.

But I still think there MUST be a way of doing it even with Win-XP. Yes, we have a lot to thank Bill Gates for!

Computer software is still stuck at the stage where "Puffing Billy" was in the early Victorian age of steam.
---
Reg.

# 4053. Re: How to print G4FGQ's program results.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-23 00:58:46 UTC
From: Ralph Mowery <rmowery28146@earthlink.net>
Message-ID: <aLoyd.9516$yK.5590@newsread3.news.atl.earthlink.net>
Source record: 84850

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:cqcscd$io6$1@titan.btinternet.com...
> I have been asked on quite a few occasions how to dump my programs to a
> printer. There appears not to be a simple way.
>
>
Has anyone tried a prigram called Printscreen to do that ?

I have not used it in several years but at work on windows NT we used it to
dump a dos program data screen to the printer.

# 4054. Re: How to print G4FGQ's program results.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-23 01:08:54 UTC
From: Ralph Mowery <rmowery28146@earthlink.net>
Message-ID: <GUoyd.9521$yK.2761@newsread3.news.atl.earthlink.net>
Source record: 84851

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:cqcscd$io6$1@titan.btinternet.com...
> I have been asked on quite a few occasions how to dump my programs to a
> printer. There appears not to be a simple way.
>
> I have just uploaded to my website a procedure which at least works. It
> involves actually going via my website and using the "Paint" program which
> usually comes with Microsoft Windows. There may be other programs which
> will do the same thing. I am indebted to Jack, G3PVG for the basic
> procedure.

It seems to work for me if I use the dashed block in the toolbar to
highlight the text I want and copy it to the clipboard, then open up the
Wordpad program and paste it to that program. From there you can do what
you want with it. This is using windows 98.

# 4055. Re: dipole rfi/tvi reduction

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-23 01:14:24 UTC
From: ml <m@dti.net>
Message-ID: <m-E94222.20142122122004@news.verizon.net>
Source record: 84852

In article <41c9670d$1_5@newsfeed.slurp.net>,
"Floyd Sense" <fsense@copper.net> wrote:

> Depends on what you mean by "giving off interference". In my experience,
> most interference situations today involving HF are the result of a
> perfectly clean fundamental HF signal being detected by an appliance or
> other electronic device which should be rejecting such signals. There's
> nothing you can do to your HF station to minimize that other than to
> increase the separation between the HF antenna and the device experiencing
> the interference (or reduce the transmitted power). Depending upon the
> device in question, use of bypass caps on the AC line and/or ferrite chokes
> on the line cord and other external leads MAY provide relief. It's
> certainly possible that feedline radiation is contributing to the problem
> and in that case judicious use of a balun and proper grounding may provide
> some relief.
>
> K8AC
>
>
> "ml" <m@dti.net> wrote in message
> news:m-A1F0AD.07042222122004@news.verizon.net...
> > Hi
> >
> > was wondering if their was anything that could be done (antenna/feedline
> > wise) to reduce chances of giving off interference from any type of
> > wire antennas
> >
> > such as for ex a center fed coax fed dipole i'll use a 1:1balun at
> > the end, try to make dipole resonant
> >
> > i believe the coax run should also be within 1/2wave or so
> >
> > (everying at radio end is ok , good grounds ,tuner etc)
> >
> > any tips??

ok i follow all this , didn't think about putting ferrite onto pwr
line but good idea

anyone know a place to get some clamp on ? or other ac chokes/ferrites
at good price , ? radio shack isnt the best

# 4056. Re: Antenna help needed - Thank you

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-23 01:17:37 UTC
From: CW <cmagers@earthlink.net>
Message-ID: <zOedne4OUNjCgVfcRVn-1g@comcast.com>
Source record: 84853

Some of us got it. Very well done. Thanks for posting.

"W4JLE" <W4jle@w4jle.com> wrote in message
news:Z%Gxd.41$v_.36@fe61.usenetserver.com...
> For the humor challenged: It's a JOKE... Jheeez!
>
> My sincere apologies if I twisted any one's panties...
>
>

# 4057. Re: Body Worn Antenna UHF Range

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-23 01:47:54 UTC
From: Andrey <a8421@intergate.bc.ca>
Message-ID: <10sk911mbjesp6e@corp.supernews.com>
Source record: 84854

Here is an interesting example of wearable antenna. It is directional,
alas...

http://www.wearable.ethz.ch/bluetexantenna.0.html

Here's how to modify this concept to make it "quasi-omnidirectional":

Make a dipole feed on the apex of the shoulder, drop one radiator down the
shoulder in front of, another - behind the body. Stitch it inside the suit.
For radiator, use one inch strips of material similar to one on the website
above, or any sort of fine conductive mesh. Match by adjusting lengths of
the radiators not to expected resonant length but to low SWR at your
required frequency. If the impedance will be too low - offset the feed
point.

Good luck.

Andrey

PS: say hi to Mr. Fractenna - he is playing his usual stunt, funny to watch.

"icelord" <pedroclaro@gmail.com> wrote in message
news:1c732ffa.0412220353.5512a61f@posting.google.com...
> Greetings,
>
> I'm currently developing a project which requires a specialized
> antenna. The system consists in a sensor equipped suit that delivers
> the data to a server. I'm having problems findind a suitable antenna
> for the suit, since it requires to be integrated on the suit or in a
> backpack (whip antennas are out of the question, since the suit can't
> have any holes). The main problem is the human body effect and the
> size constraints. Gain is also a major requirement since the range of
> the operations will be 400 meters with line of sight.
> (Server side: 10 dBm Tx Power and a 6 dB whip antenna, Suit side: -96
> dBm sensibility- freq:433 MHz)
>
> I've tried a patch antenna (similar to the one provided by linx
> technologies) but it didn't perform well. I've also tried a small whip
> antenna but the ground plane dimensions aren't suitable for
> integrating this type of antennas in the backpack. I've also found a
> dipole body worn antenna ( http://www.panorama.co.uk )., but I'm not
> sure of its performance. Currently I'm trying to develop my own
> antenna, which consists of a pcb small loop antenna. I'm asking for
> sugestions and maybe antenna references for this type of application.
>
> Thanks in advance.

# 4058. Re: How to print G4FGQ's program results.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-23 05:08:39 UTC
From: kelly@dvol.com
Message-ID: <1103778519.039948.297760@z14g2000cwz.googlegroups.com>
Source record: 84855

Reg Edwards wrote:
> I have been asked on quite a few occasions how to dump my programs to
a
> printer. There appears not to be a simple way.
>
> I have just uploaded to my website a procedure which at least works.
It
> involves actually going via my website and using the "Paint" program
which
> usually comes with Microsoft Windows. There may be other programs
which
> will do the same thing. I am indebted to Jack, G3PVG for the basic
> procedure.
>
> Interested? Go to "Dump Program Results to Printer" in the "Index"
section
> on my website.
> ----
> ..........................................................
> Regards from Reg, G4FGQ
> For Free Radio Design Software go to
> http://www.btinternet.com/~g4fgq.regp
> ..........................................................

About two eons ago I got tired of trying to "communicate" the outputs I get from my assorted technoid's programs which my e-mail recipients don't have installed on their hard drives. One cannot ship a CAD file, or a Mathcad file or an antenna modeling file to somebody who does not have the corresponding software up and running. Very frustrating.

After much thrashing I discovered the solution: Screengrabs via Gadwin. It's freeware which generates .png files which can be opened, viewed and printed in any Winbox running any O/S from 98 forward including XP in all it's sick forms. Gadwin can grab anything and everything you can bring up on your screen and it can be not only viewed, it can also be printed and stored for future use.

http://www.gadwin.com/printscreen/

Double-click on any .png file and it'll come up on your browser. Including Firefox.

As soon as I log off here Reg I'll run one of your gems and e-mail the output screen to you as a demo.

w3rv

# 4059. Re: How to print G4FGQ's program results.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-23 05:17:04 UTC
From: Bill Turner <noway@nohow.com>
Message-ID: <MPG.1c33f4af3d702e8b989680@cnews.newsguy.com>
Source record: 84856

In article <1103778519.039948.297760@z14g2000cwz.googlegroups.com>,
kelly@dvol.com says...
> Gadwin can grab anything and everything you
> can bring up on your screen and it can be not only viewed, it can also
> be printed and stored for future use.
>
>

---

Isn't that what PrintScreen does? Copies the screen to the Clipboard?

--
Bill, W6WRT

# 4060. Re: How to print G4FGQ's program results.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-23 06:01:46 UTC
From: Cecil Moore <Cecil.A.Moore@ieee.org>
Message-ID: <41ca5f66$1_1@127.0.0.1>
Source record: 84857

Bill Turner wrote:
> Isn't that what PrintScreen does? Copies the screen to the Clipboard?

I think that's Alt-PrtScn.
--
73, Cecil http://www.qsl.net/w5dxp

----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

------------== Posted via Newsfeed.Com - Uncensored Usenet News ==----------
http://www.newsfeed.com The #1 Newsgroup Service in the World!
-----= Over 100,000 Newsgroups - Unlimited Fast Downloads - 19 Servers =-----

# 4061. Re: How to print G4FGQ's program results.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-23 07:18:47 UTC
From: Bill Turner <noway@nohow.com>
Message-ID: <MPG.1c34113790e835a8989681@cnews.newsguy.com>
Source record: 84859

In article <41ca5f66$1_1@127.0.0.1>, Cecil.A.Moore@ieee.org says...
> Bill Turner wrote:
> > Isn't that what PrintScreen does? Copies the screen to the Clipboard?
>
> I think that's Alt-PrtScn.
> --
> 73, Cecil http://www.qsl.net/w5dxp

---

Print Screen captures the entire screen, while Alt-Print Screen captures
only the active window.

--
Bill, W6WRT

# 4062. Re: Newbie antenna help

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-23 07:37:34 UTC
From: Jack Painter <223bthp@cox.net>
Message-ID: <3Buyd.19028$7p.4006@lakeread02>
Source record: 84858

<stryped@hotmail.com> wrote
> If you do change the element size, how do you determine the proper
> spacing?
>
> I appreciate your help! I like the design of the antenna and its
> simplicity.

When you earlier asked this question I answered it. The specific dimensions
are ALL provided in my previous post/reply to you. Here is is again!

stryped@hotmail.com> wrote

> I just realized, on that website it does not say the spacing between
> elements, only the length of the elements. How would I find out that?

22/freq (in Mhz)

See: http://www.hamuniverse.com/jpole.html

73,
Jack

# 4063. Re: Body Worn Antenna UHF Range

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-23 13:52:04 UTC
From: fractenna@aol.com
Message-ID: <20041223085204.06251.00001349@mb-m27.aol.com>
Source record: 84860

Wonderful example of 20th century state of the art antennas.

Go with it Andrey!

Check the calendar BTW.

Say, where is that PLUG for your antenna services?

73,
Chip N1IR

# 4064. Re: How to print G4FGQ's program results.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-23 14:11:23 UTC
From: kelly@dvol.com
Message-ID: <1103811083.282463.270930@z14g2000cwz.googlegroups.com>
Source record: 84861

Bill Turner wrote:
> In article <1103778519.039948.297760@z14g2000cwz.googlegroups.com>,
> kelly@dvol.com says...
> > Gadwin can grab anything and everything you
> > can bring up on your screen and it can be not only viewed, it can
also
> > be printed and stored for future use.
> >
> >
> ----------
>
> Isn't that what PrintScreen does? Copies the screen to the
Clipboard?

Sort of but the screengrab programs take the concept much farther than just Alt-PrintScr which only creates ponderous Windoze .bmps. In the case of Gadwin it will produce not only .bmps, it can also churn out .jpgs, gifs, tifs and others. The .pngs it creates are amazingly small vs. the rest which matters when tossing image files around by e-mail. The size & area of the capture window can be mouse-defined anywhere on the screen and the view size of the output image can be controlled via adjustable magnification. Gadwin is a nice little piece of freeware but the payware screen grab programs like Snagit take the fine art to much higher levels.

In any event I've found that Gadwin is far more useful than the Clipboard routine when it comes to doing chores like capturing, storing, printing and e-mailing screen grabs.
> --
> Bill, W6WRT

w3rv

# 4065. Re: How to print G4FGQ's program results.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-23 17:09:34 UTC
From: Dan Richardson <dwr@mailinator.com>
Message-ID: <bnuls0pn74qr63guq51r0es4478mol9f2d@4ax.com>
Source record: 84862

On 22 Dec 2004 21:08:39 -0800, kelly@dvol.com wrote:

Reg Edwards wrote:
> I have been asked on quite a few occasions how to dump my programs to
>a
> printer. There appears not to be a simple way.
>
> I have just uploaded to my website a procedure which at least works.
>It involves actually going via my website and using the "Paint" program
>which usually comes with Microsoft Windows. There may be other programs
>which will do the same thing. I am indebted to Jack, G3PVG for the basic
> procedure.
>
> Interested? Go to "Dump Program Results to Printer" in the "Index"
>section
> on my website.
> ----
> ..........................................................
> Regards from Reg, G4FGQ
> For Free Radio Design Software go to
> http://www.btinternet.com/~g4fgq.regp
> ..........................................................

There are several screen grab programs out there that will do the job.
My favorite is WinGrab. Its main features are:

* Freeware: No registration and no nags. You are free to use the
program at home and at your office (i.e. commercial use).
* Hot keys: Trigger capture by pressing user-defined hot keys. One
key for hiding/showing the program, one key for capturing a window and
one key for capturing the screen.
* Auto-save: Triggered by a hot key, the program can capture +
save to file in one operation, without any user intervention
(automatic incremental file naming).
* Time-scheduled capture:New Capture + save to file (auto-save) at
regular time intervals.
* Cursor capture: New The mouse cursor is included in the
captures.
* Index images: Can create index images (overview image with an
array of small images). The tiling of images can be freely set by
user. Useful to get an overview of images.
* Color reduction: High quality color reduction to 256 colors (8
bits/pixel). Useful for reducing file size.
* Cropping: Crop images after drawing a bounding rectangle with
the mouse.

* Clipboard: Copy and paste images using the Windows clipboard.
Useful for exchange with other programs.
* Graphic formats: Supported formats are jpeg, png, tiff, bmp. The
degree of jpeg compression can be set by user, giving full control
over image quality and file size. Can create progressive jpeg's and
interlaced png's.
* Batch printing: Print a list of images with any number of images
tiled on the same sheet of paper (similar appearance as index images).
Useful for printing a series of captures.
* Image-viewing: Useful as a simple image-viewer. To open an
image, doubleclick on the file or drag & drop it on the program
window. Jpeg images can be decompressed to a smaller size for faster
viewing. Fast zoom in/out by clicking the mouse buttons.
* Image text: Can store text in image files (jpeg, tiff, png).
Useful for storing notes about images.

It can be downloaded at: http://www.andras.net/wg.html

73,
Danny, K6MHE

# 4066. Re: Newbie antenna help

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-23 17:41:46 UTC
From: arrow146@aol.comjunk.com
Message-ID: <20041223124146.08392.00002484@mb-m04.aol.com>
Source record: 84863

Why would stainless steel provide different performance? Can you use
regular mild steel for the angle iron bracket? Maybe paint it so it
would not rust?

If you do change the element size, how do you determine the proper
spacing?

I appreciate your help! I like the design of the antenna and its
simplicity.

At one time I had a chance to acquire a large number of Stainless Steel CB
whips, cheaper than the cost of aluminum.
I used 8 of them to make a 4 element Yagi just like our regular 146-4S.
It works, SWR is low, but it just does not work as well as the aluminum
elements.
Used a couple to make an OSJ, because of the smaller diameter, the spacing is
closer to get it to match But like I said there was a very noticeable drop in
performance. I really wanted it to work, would have been a good market for
them for mounting on 18 wheelers.
(Don't ask, I won't sell ether of them.)

As for making the bracket out of steel, Why ? it's harder to drill, harder to
tap. The 3/16" stress aluminum angle is a lot stronger than it needs to be.

As for determining the proper spacing, if you know the exact impedance
of the 1/2 wave, there is a formula for figuring the diameter & spacing.
Easier to just adjust the spacing for lowest SWR.

Unlike other types of J-Poles the OSJ does Not need a balun or choke.
It was designed for direct connect to coax.

73 Al Lowe N0IMW
Arrow Antenna

# 4067. Re: Antennas vs Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-23 18:32:10 UTC
From: Nick <wa5bdu@yahoo.com>
Message-ID: <1103826730.241802.279020@f14g2000cwb.googlegroups.com>
Source record: 84864

Count your blessings if you see either one. The most grating plural of antenna often seen on the net is "antenna's".

73--Nick, WA5BDU

Spike wrote:
> Often a word can be mispelled or used
> in a generally unique or gramatically
> incorrect manner when a tongue-in-cheek
> reference is made. Hence: antennae vice
> antennas. 73s and 88s W6BWY

# 4068. Re: Choosing mobile HF antennas.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-23 19:21:25 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <VUEyd.4831$_X7.4490@newssvr33.news.prodigy.com>
Source record: 84865

Reg,
You just took all the 'fun' out of antenna advertising!
Good for the buyer, maybe not so good for the advertiser?
'Doc

# 4069. Re: Antennas vs Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-23 22:34:57 UTC
From: pfriedmanNoSpam <p.paulfriedmanNoSpam@comcast.net>
Message-ID: <RoGdnaJUbo2W1VbcRVn-sw@comcast.com>
Source record: 84866

Nick: You are not paying attention. <grin> My personal favorite is
"antennaes"

73

Paul AB0SI

"Nick" <wa5bdu@yahoo.com> wrote in message
news:1103826730.241802.279020@f14g2000cwb.googlegroups.com...
> Count your blessings if you see either one. The most grating plural of
> antenna often seen on the net is "antenna's".
>
> 73--Nick, WA5BDU
>
>
> Spike wrote:
>> Often a word can be mispelled or used
>> in a generally unique or gramatically
>> incorrect manner when a tongue-in-cheek
>> reference is made. Hence: antennae vice
>> antennas. 73s and 88s W6BWY
>

# 4070. Re: How to print G4FGQ's program results.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-23 22:45:39 UTC
From: Ian Jackson <IanJacksonRemoveThisBit@g3ohx.demon.co.uk>
Message-ID: <hCyVe0KTq0yBFwrp@g3ohx.demon.co.uk>
Source record: 84867

In message <1103778519.039948.297760@z14g2000cwz.googlegroups.com>,
kelly@dvol.com writes
>
>Reg Edwards wrote:
>> I have been asked on quite a few occasions how to dump my programs to
>a
>> printer. There appears not to be a simple way.
>>
>> I have just uploaded to my website a procedure which at least works.
>It
>> involves actually going via my website and using the "Paint" program
>which
>> usually comes with Microsoft Windows. There may be other programs
>which
>> will do the same thing. I am indebted to Jack, G3PVG for the basic
>> procedure.
>>
>> Interested? Go to "Dump Program Results to Printer" in the "Index"
>section
>> on my website.
>> ----
>> ..........................................................
>> Regards from Reg, G4FGQ
>> For Free Radio Design Software go to
>> http://www.btinternet.com/~g4fgq.regp
>> ..........................................................
>
>About two eons ago I got tired of trying to "communicate" the outputs I
>get from my assorted technoid's programs which my e-mail recipients
>don't have installed on their hard drives. One cannot ship a CAD file,
>or a Mathcad file or an antenna modeling file to somebody who does not
>have the corresponding software up and running. Very frustrating.
>
>After much thrashing I discovered the solution: Screengrabs via Gadwin.
>It's freeware which generates .png files which can be opened, viewed
>and printed in any Winbox running any O/S from 98 forward including
>XP in all it's sick forms. Gadwin can grab anything and everything you
>can bring up on your screen and it can be not only viewed, it can also
>be printed and stored for future use.
>
>http://www.gadwin.com/printscreen/
>
>Double-click on any .png file and it'll come up on your browser.
>Including Firefox.

>
>As soon as I log off here Reg I'll run one of your gems and e-mail the
>output screen to you as a demo.
>
>w3rv
>
Nope. Doesn't work for me.
It does a capture, but I just capture a black screen.
Will persevere!
Ian.
--

# 4071. Re: Antennas vs Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-23 22:50:04 UTC
From: "J. Teske" <jdteske@comcast.net>
Message-ID: <1fims0hf889ed30sluabjf6646rlgfjt64@4ax.com>
Source record: 84868

If the ARRL Handbook and other similar publications ever get
translated into Latin, antennae would be correct :-)

Omnia decum metrus solarium spottus est nihlis. Illegitimi
noncarborundum. Veni, vidi, vici contestum DXCCibus con
cannonium maximus.

W3JT

On 23 Dec 2004 10:32:10 -0800, "Nick" <wa5bdu@yahoo.com> wrote:

>Count your blessings if you see either one. The most grating plural of
>antenna often seen on the net is "antenna's".
>
>73--Nick, WA5BDU
>
>
>Spike wrote:
>> Often a word can be mispelled or used
>> in a generally unique or gramatically
>> incorrect manner when a tongue-in-cheek
>> reference is made. Hence: antennae vice
>> antennas. 73s and 88s W6BWY

# 4072. Re: Antennas vs Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-23 22:55:52 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <jtims05ck9sm7fdipdo7pb8veqrajjpgav@4ax.com>
Source record: 84869

On Thu, 23 Dec 2004 17:50:04 -0500, J. Teske <jdteske@comcast.net>
wrote:
>Illegitimi noncarborundum
It is Non Illegitimus Carborundum

# 4073. Re: How to print G4FGQ's program results.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-23 23:25:19 UTC
From: Ian Jackson <IanJacksonRemoveThisBit@g3ohx.demon.co.uk>
Message-ID: <XDRIu4LfP1yBFwc1@g3ohx.demon.co.uk>
Source record: 84870

In message <sVnyd.17679$7p.8841@lakeread02>, Craig Buck <k4ia@cox.net>
writes
>Look for Mr Snappy 95. It was made for Windows 95 but it works in XP to
>take a screen shot. I have used it to send someone a screen shot to show
>them their PSK signal. One source is http://www.nascanada.com/Software.htm
>Their description of it says: This is an older screen capture utility. But
>its very small and powerful and we have discovered that it works with
>Windows 95, 98, ME, NT, and 2000. It will probably work with XP as well. It
>can capture the whole screen, the active window, or a selectable area of the
>screen. It can put the captured image to a file, to the clip board, or you
>can print it out directly. This is a must have utility.

Nope. It doesn't work for me.
When running a DOS program, it does a capture, but I only get a black
screen. Same as Gadwin.

Both work OK in Windows XP, but really no better than using 'Print
Screen' to capture the screen image to the clipboard.

For me, it's either run the DOS prog in a Windows window (screen dump
works), or run full screen, and use Print Screen to capture the text,
and paste it to a blank Word document (then tidy it up a bit).

I can live with this.

Ian.
--

# 4074. Using a Loop Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-23 23:48:43 UTC
From: onyx49@juno.com
Message-ID: <1103845723.740688.290100@z14g2000cwz.googlegroups.com>
Source record: 84871

We know that a loop antenna is good for mag fields and a diploe
is good for E fields. But since the E field is (120 pie) times
stronger than the mag field, why is there any consdieration to
using a loop antenna?
This question has gnawed at me since my EE course work, but
nobody seems to have a situation where the mag field is better
to receive.

TIA,
Dave

# 4075. Re: Antennas vs Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-24 00:50:15 UTC
From: "J. Teske" <jdteske@comcast.net>
Message-ID: <a3pms0lif6a1ebnl9s46b1kf2cmfd1t84m@4ax.com>
Source record: 84772

On Thu, 23 Dec 2004 22:55:52 GMT, Richard Clark <kb7qhc@comcast.net>
wrote:

>On Thu, 23 Dec 2004 17:50:04 -0500, J. Teske <jdteske@comcast.net>
>wrote:
>>Illegitimi noncarborundum
>It is Non Illegitimus Carborundum

Not if you have more than one bastard! -us ending = singular.

"Non" refers to the verb and must be next to it, otherwise you have a
Latin equivalent of a split infinitive and we must always try to never
split infinitives. According to scholars the version you cited
(which admittedly is more often seen) came about when posters were
published years ago for comsumption by engineers and written by
engineers who should have stuck to Pig Latin...in which case it would
be:

Ontday etlay hetay astardsbay rindgay ouyay ownday. :-)

W3JT Who is pentalingual, but as you might guess none of the five is
Latin.

# 4076. Re: Antennas vs Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-24 00:59:26 UTC
From: W4JLE <W4jle@w4jle.com>
Message-ID: <PRJyd.332$I83.264@fe61.usenetserver.com>
Source record: 84773

No it is Illegitimus non carborundum
"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:jtims05ck9sm7fdipdo7pb8veqrajjpgav@4ax.com...
> On Thu, 23 Dec 2004 17:50:04 -0500, J. Teske <jdteske@comcast.net>
> wrote:
> >Illegitimi noncarborundum
> It is Non Illegitimus Carborundum

# 4077. Re: Using a Loop Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-24 01:01:06 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10smqil2d1g4u4e@corp.supernews.com>
Source record: 84774

First, a loop isn't "good for mag fields" any more than a dipole, and a dipole isn't any more "good for E fields" than a loop. See my posting of about 3 days ago in this newsgroup in the thread "Re: Loop vx Folded Dipole noise factor".

Second, the E field isn't 120 * pi stronger than the H field. In free space, in the far field from the source, the E field is 120 * pi OHMS times the H field. You could say one is stronger than the other only if they had the same units, which they don't. A parallel to this would be to say that the voltage is "stronger" than the current in a 10 ohm resistor, but "weaker" in a 0.1 ohm resistor. Voltage and current are different things, just as E and H fields are, so can't be directly compared for "strength".

You might want to dust off the fields text you used in your EE curriculum, and review the relationship between E and H fields, and what happens when they interact with an antenna.

Roy Lewallen, W7EL

onyx49@juno.com wrote:
> We know that a loop antenna is good for mag fields and a diploe
> is good for E fields. But since the E field is (120 pie) times
> stronger than the mag field, why is there any consdieration to
> using a loop antenna?
> This question has gnawed at me since my EE course work, but
> nobody seems to have a situation where the mag field is better
> to receive.
>
> TIA,
> Dave
>

# 4078. Re: Antennas vs Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-24 01:02:20 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <t1qms0lluvfts2r7vu9rm6tdl6a7tanbvj@4ax.com>
Source record: 84775

On Thu, 23 Dec 2004 19:50:15 -0500, J. Teske <jdteske@comcast.net>
wrote:
>According to scholars the version you cited
>(which admittedly is more often seen) came about when posters were
>published years ago for comsumption by engineers and written by
>engineers who should have stuck to Pig Latin...

Hi OM,

Umm, not my source (although my cohort). Check with John Ciardi's
"Good Words to You." He follows you closer, but there is no
"noncarborundum." As many of John's entries derive from the military,
I bet this one does too (which is where I heard it first 35 years ago
anyway).

73's
Richard Clark, KB7QHC

# 4079. Re: Antennas vs Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-24 01:42:20 UTC
From: Mike Coslo <mcoslo@adelphia.net>
Message-ID: <ff2dnUbASqBn7lbcRVn-qA@adelphia.com>
Source record: 84776

Richard Clark wrote:
> On Thu, 23 Dec 2004 17:50:04 -0500, J. Teske <jdteske@comcast.net>
> wrote:
>
>>Illegitimi noncarborundum
>
> It is Non Illegitimus Carborundum

It just depends on how many of the bastards there are, Richard! 8^)

- Mike KB3EIA -

# 4080. Re: Antennas vs Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-24 01:44:02 UTC
From: Mike Coslo <mcoslo@adelphia.net>
Message-ID: <ff2dnUHASqDC6VbcRVn-qA@adelphia.com>
Source record: 84777

J. Teske wrote:

> On Thu, 23 Dec 2004 22:55:52 GMT, Richard Clark <kb7qhc@comcast.net>
> wrote:
>
>
>>On Thu, 23 Dec 2004 17:50:04 -0500, J. Teske <jdteske@comcast.net>
>>wrote:
>>
>>>Illegitimi noncarborundum
>>
>>It is Non Illegitimus Carborundum
>
>
> Not if you have more than one bastard! -us ending = singular.
>
> "Non" refers to the verb and must be next to it, otherwise you have a
> Latin equivalent of a split infinitive and we must always try to never
> split infinitives. According to scholars the version you cited
> (which admittedly is more often seen) came about when posters were
> published years ago for comsumption by engineers and written by
> engineers who should have stuck to Pig Latin...in which case it would
> be:
>
> Ontday etlay hetay astardsbay rindgay ouyay ownday. :-)
>

I cana beata neone ina gama dominos.

- Mike KB3EIA -

# 4081. Re: Antennas vs Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-24 01:44:22 UTC
From: Spike <gator2@webmail.co.za>
Message-ID: <331ajuF3s07r9U1@individual.net>
Source record: 84778

Anyone willing to take on "data" and "datum?"

# 4082. Re: Antennas vs Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-24 02:44:12 UTC
From: "J. Teske" <jdteske@comcast.net>
Message-ID: <ef0ns09r7ukdv5susjctsj64cp5sjqva1h@4ax.com>
Source record: 84779

On Thu, 23 Dec 2004 20:44:02 -0500, Mike Coslo <mcoslo@adelphia.net>
wrote:

>>
>
> I cana beata neone ina gama dominos.

I think I heard that one in one of my rare sojourns into a Catholic
Church in the old days.

I think the next line set the stakes"

"Dominos pro Nabiscos."

Jon W3JT
>
> - Mike KB3EIA -

# 4083. Re: Antennas vs Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-24 02:48:38 UTC
From: "J. Teske" <jdteske@comcast.net>
Message-ID: <0r0ns097rq33ilvvrhas2ilh7v09psk4fk@4ax.com>
Source record: 84780

On Thu, 23 Dec 2004 18:44:22 -0700, "Spike" <gator2@webmail.co.za>
wrote:

>Anyone willing to take on "data" and "datum?"

No!
>

# 4084. Re: Body Worn Antenna UHF Range

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-24 02:55:09 UTC
From: Jacques <lesgranddish@yahoo.fr>
Message-ID: <1103856908.999791.306670@z14g2000cwz.googlegroups.com>
Source record: 84781

icelord wrote:
> Gain is also a major requirement...

Gain implies directionality. You probably want low gain, unless you can maintain a constant aim from The Suit. Think about it.

> 400 meters with line of sight.
> +10 dBm Tx Power and a 6 dB whip antenna
> Suit side: -96dBm sensibility [spelling!]
> freq: 433 MHz

Ask the current US president about radio receivers hidden under ill-fitting suits. I believe that he has some recent hands-on experience with the subject...

This seems to be a trivial problem. Any old 6-inch wire should work. If not, why not use a higher gain antenna at the "server" end of the link? Also - police "wires" (mics) work, you shouldn't have any problems.

# 4085. Re: Antennas vs Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-24 03:03:01 UTC
From: "J. Teske" <jdteske@comcast.net>
Message-ID: <tc1ns0h69e62drqfs0rg269lc6njudi4um@4ax.com>
Source record: 84782

On Fri, 24 Dec 2004 01:02:20 GMT, Richard Clark <kb7qhc@comcast.net>
wrote:

>On Thu, 23 Dec 2004 19:50:15 -0500, J. Teske <jdteske@comcast.net>
>wrote:
>>According to scholars the version you cited
>>(which admittedly is more often seen) came about when posters were
>>published years ago for comsumption by engineers and written by
>>engineers who should have stuck to Pig Latin...

A googling will reveal several varients. A somewhat scholarly
discussion and a theory as to its origins can be found at
http://alt-usage-english.org/excerpts/fxillegi.html

I first heard it forty years ago when I was in college {English/French
major, not engineer}.

The discussion above credits General "Vinegar Joe" Stillwell as
popularizing the phrase when he gestingly took it as his motto.
The second time I heard it was from a famous cryptologist who actually
was on Stillwell's staff during WW II. [BTW I was a not-so-famous
cryptologist in my working life.]
The writer of the discussion attributes the phrase to British
Intelligence in WW II and having worked with these guys, I could
certainly believe it.

W3JT
>
>Hi OM,
>
>Umm, not my source (although my cohort). Check with John Ciardi's
>"Good Words to You." He follows you closer, but there is no
>"noncarborundum." As many of John's entries derive from the military,
>I bet this one does too (which is where I heard it first 35 years ago
>anyway).
>
>73's
>Richard Clark, KB7QHC

# 4086. Re: Antennas vs Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-24 03:11:56 UTC
From: Cecil Moore <W5DXP@hotmail.com>
Message-ID: <41cb8918$1_3@127.0.0.1>
Source record: 84783

J. Teske wrote:
> ... we must always try to never split infinitives.

:-) good one. 73, Cecil, W5DXP

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# 4087. Fox Tango International, Yaesu Users Groups

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-24 04:23:50 UTC
From: w4clm <w4clm@nospam.foxtango.org>
Message-ID: <535f2515d4192f168fd4a6974963f992@localhost.talkaboutradio.com>
Source record: 84784

Attenation Yaesu Equipment Owners.
You are invited to join us at Fox Tango International at Yahoo groups.
http://groups.yahoo.com/group/FoxTango/

Please Visit our Web site at
Http://www.foxtango.org

"I am writing to suggest that you join with me an other owners of the Yaesu FT-101 in an informal association which we might call the Fox-Tango Group. It would serve as a sort of benovelent, protective, mutual aid and perhaps social club, essentially for the purpose of interchanging information, ideas, experiences and problems"

These were the words of Milton Lowens (N4ML) when he started the Fox Tango Club in 1972, which was dedicated to the exchange of information about the Yaesu FT-101 amateur radio transceiver. The club published the FT Newsletter from 1972 until 1985. I was a member of the Fox Tango Group from 1977 to 1985. I still remember that I could hardly wait to receive each month's issue of the Fox Tango Newsletter jam packed with modifications and user suggestions for my beloved FT-101.

In an effort to keep the Fox Tango flame burning and continue the interchange of information to enhace the effectiveness of these old rigs. I invited you to join the Fox Tango Club at Yahoo goups.

Topics of discussion will cover the FT-101, FT-101B, FT-101E, through the FT-101F, FL-2100B including all Yaesu accesories. Yaesu Twins FR-101, FL-101, FT-620B, FT-220, FT-221, FT-101ZD, FL-2100Z, FT-901, FT-901DM, FT-920 FT-102, FT-757Gx, GXII, FT-767, FT-7, FT-7B, FT-227R, CPU-2500R and other more recent models such as the FT-100D FT-1000D.

Welcome to the International Fox Tango Club at Yahoo Groups.

Organized 1971 By & For Owners of Yaesu Equipment
For more information about Fox Tango International please
visit the Fox Tango Web Page at Foxtango.org
Or the Link provided below.

Other equipment specific Fox Tango Groups:
http://groups.yahoo.com/group/Yaesu_FT-7
http://groups.yahoo.com/group/FT-620B
http://groups.yahoo.com/group/FTdx-9000
http://groups.yahoo.com/group/Yaesu_FT-227R_CPU-2500_users_group/

# 4088. Re: How to print G4FGQ's program results.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-24 06:46:25 UTC
From: kelly@dvol.com
Message-ID: <1103870785.007418.42960@f14g2000cwb.googlegroups.com>
Source record: 84785

Ian Jackson wrote:

. . .

> >
> >As soon as I log off here Reg I'll run one of your gems and e-mail
the
> >output screen to you as a demo.
> >
> >w3rv
> >
> Nope. Doesn't work for me.
> It does a capture, but I just capture a black screen.
> Will persevere!
> Ian.
> --

If I manage to survuve the next couple days whilst I'm off to other
places we'll get back to subject and get it sorted out Ian. Monday.
Brian

## 4089. Re: Antennas vs Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-24 07:34:08 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <oNFU6ACwZ8yBFA7B@ifwtech.co.uk>
Source record: 84786

Spike wrote:
>Anyone willing to take on "data" and "datum?"
>
>
Too late - "data" have already been carborundumbed into the singular.

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

# 4090. Re: Antennas vs Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-24 08:41:04 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10snlh2jgb5fl41@corp.supernews.com>
Source record: 84787

Language corruption isn't always bad. Just a few nights ago I was listening to the BBC World Service (rebroadcast here on public radio). A (British) lady was expounding about the troubles of some American government officials and their illegal-alien nannies. When asked if she had a nanny, she hesitated, then said she did. And she added that any revelation of impropriety on her behalf would be very "red-facening".

I thought it was, well, you know, like, whatever.

Roy Lewallen, W7EL

Ian White, G3SEK wrote:
> Spike wrote:
>
>> Anyone willing to take on "data" and "datum?"
>>
>>
> Too late - "data" have already been carborundumbed into the singular.
>
>

# 4091. Re: Antennas vs Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-24 10:01:13 UTC
From: Alf Jacob Munthe <alfjacob@dcpost.no>
Message-ID: <cqgpdi$bnc$1@troll.powertech.no>
Source record: 84788

"Roy Lewallen" <w7el@eznec.com> skrev i melding
news:10snlh2jgb5fl41@corp.supernews.com...
> Language corruption isn't always bad. Just a few nights ago I was
> listening to the BBC World Service (rebroadcast here on public radio). A
> (British) lady was expounding about the troubles of some American
> government officials and their illegal-alien nannies. When asked if she
> had a nanny, she hesitated, then said she did. And she added that any
> revelation of impropriety on her behalf would be very "red-facening".
>
> I thought it was, well, you know, like, whatever.
>
> Roy Lewallen, W7EL
>
> Ian White, G3SEK wrote:
>> Spike wrote:
>>
>>> Anyone willing to take on "data" and "datum?"
>>>
>>>
>> Too late - "data" have already been carborundumbed into the singular.
>>

Opera vs.opus?

Alf

# 4092. Re: Antennas vs Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-24 10:02:48 UTC
From: Alf Jacob Munthe <alfjacob@dcpost.no>
Message-ID: <cqgpge$bnf$1@troll.powertech.no>
Source record: 84789

"Roy Lewallen" <w7el@eznec.com> skrev i melding
news:10snlh2jgb5fl41@corp.supernews.com...
> Language corruption isn't always bad. Just a few nights ago I was
> listening to the BBC World Service (rebroadcast here on public radio). A
> (British) lady was expounding about the troubles of some American
> government officials and their illegal-alien nannies. When asked if she
> had a nanny, she hesitated, then said she did. And she added that any
> revelation of impropriety on her behalf would be very "red-facening".
>
> I thought it was, well, you know, like, whatever.
>
> Roy Lewallen, W7EL
>
> Ian White, G3SEK wrote:
>> Spike wrote:
>>
>>> Anyone willing to take on "data" and "datum?"
>>>
>>>
>> Too late - "data" have already been carborundumbed into the singular.
>>
Or better: kollo vs. kolli

Alf

# 4093. Re: Using a Loop Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-24 10:42:43 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cqgrr3$r7p$1@sparta.btinternet.com>
Source record: 84790

What gives you the impression the E field is stronger than the H field?

Why not give the fields a strength in numbers so that you can compare the two.

To make a true comparison you should use the same strength measurement units for both.
---
Reg.

# 4094. Re: Antennas vs Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-24 10:50:03 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <G9vfWaMbR$yBFAMK@ifwtech.co.uk>
Source record: 84791

Roy Lewallen wrote:
>Language corruption isn't always bad. Just a few nights ago I was
>listening to the BBC World Service (rebroadcast here on public radio).
>A (British) lady was expounding about the troubles of some American
>government officials and their illegal-alien nannies. When asked if she
>had a nanny, she hesitated, then said she did. And she added that any
>revelation of impropriety on her behalf would be very "red-facening".
>
>I thought it was, well, you know, like, whatever.
>
Any noun can be verbed. Any verb is subject to abusage.

Then there's The Adjectival Superlative of the Present Participle, as overheard at a music festival the USA: "These are the dancingest folks."

But the booze writers surely cap it all. We've just been given something that offers "a superbly sweet and peaty island experience on the nose" and promises "a lingering peaty finale." It takes real artistry to write like that... and much more nerve than I possess.

Happy Holidays!
--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

# 4095. Re: Fox Tango International, Yaesu Users Groups

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-24 11:48:41 UTC
From: "Edward A. Feustel" <efeustel@direcway.com>
Message-ID: <41cc0191$1_4@127.0.0.1>
Source record: 84792

You should add the yahoogroup group on the FT-736R..
Ed

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# 4096. Re: Using a Loop Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-24 12:01:53 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cqh0fh$qba$1@titan.btinternet.com>
Source record: 84793

> You might want to dust off the fields text you used in your EE
> curriculum, and review the relationship between E and H fields,

==========

There is only one Field which has components.

Most likely, the source of such widespread defective reasoning lies in the curriculum.

It's the same with SWR meters and PA conjugate matches. ;o)
----
Reg.

# 4097. Re: AM radio reception inside passenger planes?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-24 14:03:36 UTC
From: "Watson A.Name - \"Watt Sun, the Dark Remover\"" <NOSPAM@dslextreme.com>
Message-ID: <10so8af7gaukk98@corp.supernews.com>
Source record: 84794
Cross-posted to: rec.travel.air,rec.radio.amateur.antenna,sci.electronics.equipment

"Geoff Glave" <nospam@nospam.com> wrote in message
news:HxHud.9448$eb3.8331@clgrps13...
> > Any explanation for this?
>
> FM radio generally operates at longer range than AM radio,

Nonsense! AM radio stations can be heard for thousands of miles, FM for
'line of sight', which is usually less than a hundred miles.

> however it's
> limited to line-of-sight. However, when you're 40,000 feet up you can
> "see" a lot of transmitters hence the FM signals.

Nonsense! The passenger is sitting in a Faraday Cage, a fuslage made of
alumninum. The FM wavelength is short enough to go thru the windows,
but mot the AM signals.

> Cheers,
> Geoff Glave
> Vancouver, Canada
>
>

# 4098. Re: AM radio reception inside passenger planes?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-24 14:18:56 UTC
From: "Watson A.Name - \"Watt Sun, the Dark Remover\"" <NOSPAM@dslextreme.com>
Message-ID: <10so977m98rkcca@corp.supernews.com>
Source record: 84795
Cross-posted to: rec.travel.air,rec.radio.amateur.antenna,sci.electronics.equipment

"Ian Jackson" <IanJacksonRemoveThisBit@g3ohx.demon.co.uk> wrote in
message news:QQZkixB8u0uBFwNV@g3ohx.demon.co.uk...
> In message <HxHud.9448$eb3.8331@clgrps13>, Geoff Glave
> <nospam@nospam.com> writes
> >> Any explanation for this?
> >
> >FM radio generally operates at longer range than AM radio, however
it's
> >limited to line-of-sight. However, when you're 40,000 feet up you
can "see"
> >a lot of transmitters hence the FM signals.
> >
> >Cheers,
> >Geoff Glave
> >Vancouver, Canada
> >
> >
>
> The window holes are much too small to let the much longer wavelengths
> of the 'AM' signals through. The body of the plane is a very effective
> screen. The 'FM' signals can squeeze in, but it helps if you have a
> window seat. I've also listened to SW in the middle of the Atlantic.
>
> Flying from the UK to Florida, on the other side of the Atlantic the
> first FM stations you hear are usually speaking French (from Quebec)
> It's quite alarming!
> Ian.
> --

If you stretch a string on a globe from London to Florida, it will show
the 'great circle' route that's the shortest, and that should be your
plane's path, barring storme, hurricanes, etc. You'll see that it comes
really close to the eastern Canadian provinces.

# 4099. Re: Using a Loop Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-24 15:49:31 UTC
From: Cecil Moore <W5DXP@hotmail.com>
Message-ID: <41cc3aa6$1_1@127.0.0.1>
Source record: 84796

Reg Edwards wrote:
> There is only one Field which has components.

Your signal and my signal are components of the same field?
Talk about unified field theory ... :-) Happy Holidays, Reg.

And a Happy Holidays wish for everyone.
--
73, Cecil http://www.qsl.net/w5dxp

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## 4100. Re: AM radio reception inside passenger planes?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-24 16:20:47 UTC
From: "Watson A.Name - \"Watt Sun, the Dark Remover\"" <NOSPAM@dslextreme.com>
Message-ID: <10sogbltgk661db@corp.supernews.com>
Source record: 84797
Cross-posted to: rec.travel.air,rec.radio.amateur.antenna,sci.electronics.equipment

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:mf2nr0hn2u850gube0gsuo07df1hs5ee1b@4ax.com...
> On Sat, 11 Dec 2004 14:11:44 -0800, "Ed Price" <edprice@cox.net>
> wrote:
>
> >You
> >are asking him to allow a potentially dangerous device to be operated
just
> >for your convenience and entertainment. Switch roles for just a
minute.
>
> Hi Ed,
>
> This would make sense (to switch roles) if the administration hadn't
> trumped that call. Reports recently indicate that the FAA may soon
> allow anyone, anytime, to make cell phone calls while in flight.
>
> Anything goes for a price. The FDA has proven that it is no longer
> the watchdog of medicine, and the FCC is the gateway for spectrum
> bargains and marketplace sweeps.
>
> With these acronyms, one may well wonder what the "F" stands for.
>
> 73's
> Richard Clark, KB7QHC

If you make your own TRF receiver, with no LO, it won't interfere with
anything. In fact, you can then put an AM detector in it, and also
listen to the aircraft chatter.

Another way is to listen to stations at or below 97.3 MHz, which would
keep the LO at 108 MHz or below.

# 4101. Re: AM radio reception inside passenger planes?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-24 16:31:58 UTC
From: "Watson A.Name - \"Watt Sun, the Dark Remover\"" <NOSPAM@dslextreme.com>
Message-ID: <10soh0lbeei8o20@corp.supernews.com>
Source record: 84798
Cross-posted to: rec.travel.air,rec.radio.amateur.antenna,sci.electronics.equipment

"Some Guy" <Some@guy.com> wrote in message
news:41BB8C6A.FD42C1E7@guy.com...
> What a load of horse shit.

> You guys are acting as if the engines and flight control surfaces of
> an aircraft are intimately tied to the plane's radio receiver, and the
> slightest odd or out-of-place signal that it receives is enough to
> send any plane into a tail spin.

No, the laws say that you can be arrested for breaking them, and one way
to break them is to use a FM radio while the aircraft is flying.

> All this while the air travel industry is considering allowing
> passengers to use their own cell phones WHILE THE PLANES ARE IN FLIGHT
> by adding cell-phone relay stations to the planes and allowing any
> such calls to be completed via satellite. So I guess the feeble
> radiation by my FM radio (powered by 2 AAA batteries) is enough to
> cause a plane to dive into the ocean, but the guy next to me putting
> out 3 watts of near-microwave energy is totally safe.

You don't know what you're talking about. With the attitudes of the air
marshals nowadays, making airliners turn around and go back to their
departure point just because a passenger is unruly, there is a high
probability that one of them is flying along on your flight, and if he
sees an earphone hanging out of your ear, you might be that unruly
passenger they arrest at the departure point. Especially with your
nasty attitude!

> What about my hand-held GPS unit? Any chance me using it (during all
> phases of a flight, which I do routinely) will result in a one-way
> ticket to kingdom come?

Geez, what a TWERP! You can't add two and two without jumping to
conclusions! A rational conversation with you is nearly impossible.

> Getting back to the original question (poor to non-existant AM
> reception), I understand the idea of aperature and long wavelenths of
> AM radio and the size of airplane windows - but what about the effect
> of ALL the windows on a plane? Don't they create a much larger
> effective apperature when you consider all of them? And since the
> plane isin't grounded, isin't the exterior shell of a plane
> essentially transparent to all RF (ie it's just a re-radiator) because
> it's not at ground potential?

You're even dumber than I had thought. Look up Faraday Shield.
Here, try this: http://www.physlink.com/Education/AskExperts/ae176.cfm

You don't have to worry about a ground for it to work. Duh.

# 4102. Re: Antennas vs Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-24 17:09:42 UTC
From: "J. Teske" <jdteske@comcast.net>
Message-ID: <97jos0hvloh1e60l5pi0e55hkonpjmb94c@4ax.com>
Source record: 84799

On Fri, 24 Dec 2004 11:01:13 +0100, "Alf Jacob Munthe"
<alfjacob@dcpost.no> wrote:

>
>"Roy Lewallen" <w7el@eznec.com> skrev i melding
>news:10snlh2jgb5fl41@corp.supernews.com...
>> Language corruption isn't always bad. Just a few nights ago I was
>> listening to the BBC World Service (rebroadcast here on public radio). A
>> (British) lady was expounding about the troubles of some American
>> government officials and their illegal-alien nannies. When asked if she
>> had a nanny, she hesitated, then said she did. And she added that any
>> revelation of impropriety on her behalf would be very "red-facening".
>>
>> I thought it was, well, you know, like, whatever.
>>
>> Roy Lewallen, W7EL
>>
>> Ian White, G3SEK wrote:
>>> Spike wrote:
>>>
>>>> Anyone willing to take on "data" and "datum?"
>>>>
>>>>
>>> Too late - "data" have already been carborundumbed into the singular.
>>>
>
>Opera vs.opus?

Oh that's an easy one. Opera is an alternate web browser and Opus is a
penguin.

Jon W3JT (who as a violinist in his other life could tell you more
about Opera and Opus than you would ever care to know. Kindly, he will
spare you this.)
>
>Alf
>

# 4103. Re: Antennas vs Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-24 17:18:27 UTC
From: raiar@bbs.galilei.com.nospam
Message-ID: <41cc4e77.724068796@news.galilei.com>
Source record: 84800

How come I never saw the original post?

In any case, Antennas IS the PROPER Plural form of the word when used in reference to: a metallic device (as a rod or wire) for sending out or receiving radio waves.

Antennae is plural for the word when used in reference to an arthropod.

Now if your Antenna is covered with growing mildew and moss, I guess Antennae's would be the more appropos choice, hi hi.....

TTUL
Gary

# 4104. Re: Using a Loop Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-24 17:21:43 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cqhj77$k6g$1@titan.btinternet.com>
Source record: 84801

In the first 5 minutes of an EE's education, the following quotation should appear on the blackboard -

"When you can measure what you are speaking about and express it in numbers you know something about it. But when you cannot measure it, when you cannot express it in numbers, your knowledge is of a meagre and unsatisfactory kind. It may be the beginning of knowledge but you have scarcely in your thoughts advanced to the state of science."

: William Thomson, Lord Kelvin, 1824-1907.

Un-culled kids inhabitting the sewers of Rio-de-Janerio, never having heard of Thomson, are better educated.

# 4105. Loop Antennas, Medium Wave - 120m Band

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-24 17:46:37 UTC
From: Don S <donandgg@hotmail-no-spam.com>
Message-ID: <1CYyd.8637$RH4.6754@newsread1.news.pas.earthlink.net>
Source record: 84802
Cross-posted to: rec.radio.amateur.antenna,rec.radio.shortwave

To my delight, I received a Grundig AM/FM/SW radio for Christmas. I have been wanting a radio like this for some time. Now what I need to do is construct an external loop antenna because I will be using the radio in my office and I need to get better reception. The best I can do is locate the antenna inside the building. Can anyone give me information or steer me to a good website for loop antenna plans? I'm really most interested in the medium wave band to 120m band area.

Don

# 4106. Re: Loop Antennas, Medium Wave - 120m Band

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-24 19:12:54 UTC
From: RHF <rhf-newsgroups@pacbell.net>
Message-ID: <1103915574.204375.137930@z14g2000cwz.googlegroups.com>
Source record: 84804
Cross-posted to: rec.radio.amateur.antenna, rec.radio.shortwave

DS,
.
Which model of Grundig AM/FM/SW Radio did you get for Christmas ?
.
READ - Three Different Bands AM/FM/SW and Three Different Antennas
http://groups.yahoo.com/group/Shortwave-SWL-Antenna/message/1038
.
.
FOR AM/MW AND SHORTWAVE LOOP ANTENNA HELP:
.
* "Loop Antenna Information and Design" Forum {eGroup} on YAHOO !
LOOPS => http://groups.yahoo.com/group/gccloopantennadesign/
- Welcome the GCC Loop Antenna Designers and Builders group, this
list is everyone who likes to learn about all bands ELF, VLF, LF,
MF, HF, VHF, and FM broadcast and UHF Loop antennas. Contruction,
tips, help, questions, and websites are welcome to the group.
.
* "SkyWire Loop Antennas" Forum {eGroup} on YAHOO !
SKYWIRE => http://groups.yahoo.com/group/SkyWires/
- This group is for the Radio Experimenter who wants to Learn and
Exchange their Knowledge and 'secrets' about the SkyWire Loop Antenna.
Learn from fellow group members, just how the SkyWire Loop Antenna
works with your radios and receivers. Here you will find Information
and Data on figuring out how to plan and construct a SkyWire Loop
Antennas to cover all your Longwave (LW), Medium Wave (AM/MW/BCB),
and Shortwave (SW) listening needs. Make a SkyWire Loop Antenna a
great addition to your antenna and radio building projects.
.
* "Ferrite Rod Antenna Experimenters" eGroup on YAHOO !
FERRITE => http://groups.yahoo.com/group/FerriteRodAntenna/
This eGroup is for the Experimenter who wants to share or know
some secrets about Ferrite Rod Antennas. Also this is the best
eGroup for Loop Antenna Coupler Design, and also figuring out
how many turns to use to receive LW, MW, or even Shortwave
with a Ferrite Rod Antenna design.
.
* "Shortwave SWL Antenna" eGroup on YAHOO !
SWL => http://groups.yahoo.com/group/Shortwave-SWL-Antenna/
This focus of this eGroup on YAHOO! is the Shortwave (SW) Antenna;
the Medium Wave (MW) Antenna and the FM Radio Antenna: Theory,
Design, Construction, Use and Application for Shortwave (Radio)
Listeners (SWL) and Medium (Radio) Wave Listeners.
- Medium Wave is better know as the AM Radio Broadcast Band

(BCB) 530-1700 kHz where 'smaller' AM/MW Loop Antennas are use.
- The FM Radio Band (87-108 MHz) because it is Very High Frequency
(VHF) has its own unique Antenna considerations.
.
.
iane ~ RHF
.
All are WELCOME at the Shortwave Listener (SWL) "Antenna Ashram"
http://groups.yahoo.com/group/Shortwave-SWL-Antenna/message/502
Some Say: On A Clear Day You Can See Forever.
I BELIEVE: On A Clear Night . . .
You Can Hear Forever and Beyond, The BEYOND !
[ With the an AM/MW - FM - SWL Antenna of your own making. ]
.
.

# 4107. Re: Loop Antennas, Medium Wave - 120m Band

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-24 19:27:47 UTC
From: RHF <rhf-newsgroups@pacbell.net>
Message-ID: <1103916467.418879.206840@f14g2000cwb.googlegroups.com>
Source record: 84805
Cross-posted to: rec.radio.amateur.antenna, rec.radio.shortwave

DS - Sorry forgot one of the Loop Antenna eGroups ;-{

"Loop Antenna" Forum {eGroup} on YAHOO !
LOOP => http://groups.yahoo.com/group/loopantennas/
- Discussion of loop antennas on all bands including ferrite loops,
air core, all types. All bands SHF, VLF, LF, MF, HF, VHF, UHF, etc.
Shortwave, longwave, receivers, transmitters, all fair game here.
.
iane ~ RHF
.
.

# 4108. Re: Loop Antennas, Medium Wave - 120m Band

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-24 19:43:15 UTC
From: Don S <donandgg@hotmail-no-spam.com>
Message-ID: <nj_yd.8712$RH4.3678@newsread1.news.pas.earthlink.net>
Source record: 84806
Cross-posted to: rec.radio.amateur.antenna,rec.radio.shortwave

I got the S350. Thanx for the links, I'll start checking them out right
now.

Don
"RHF" <rhf-newsgroups@pacbell.net> wrote in message
news:1103916467.418879.206840@f14g2000cwb.googlegroups.com...
> DS - Sorry forgot one of the Loop Antenna eGroups ;-{
>
> "Loop Antenna" Forum {eGroup} on YAHOO !
> LOOP => http://groups.yahoo.com/group/loopantennas/
> - Discussion of loop antennas on all bands including ferrite loops,
> air core, all types. All bands SHF, VLF, LF, MF, HF, VHF, UHF, etc.
> Shortwave, longwave, receivers, transmitters, all fair game here.
> .
> iane ~ RHF
> .
> .
>

# 4109. Re: Loop Antennas, Medium Wave - 120m Band

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-24 20:54:08 UTC
From: RHF <rhf-newsgroups@pacbell.net>
Message-ID: <1103921648.590838.191970@f14g2000cwb.googlegroups.com>
Source record: 84807
Cross-posted to: rec.radio.amateur.antenna, rec.radio.shortwave

DS,
.
Then You may be interested in Checking-Out the Grundig S350
"Super Radio" Tecsun BCL-2000 eGroup on YAHOO !
GRUNDIG-S350 => http://groups.yahoo.com/group/Grundig-S350/
.
READ - "About" External Antennas for the Grundig S350 "Super Radio"
Tecsun BCL-2000
http://groups.yahoo.com/group/Shortwave-SWL-Antenna/message/1786
.
iane ~ RHF
.
.

# 4110. Re: Loop Antennas, Medium Wave - 120m Band

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-24 21:09:04 UTC
From: Don S <donandgg@hotmail-no-spam.com>
Message-ID: <Qz%yd.9163$9j5.4014@newsread3.news.pas.earthlink.net>
Source record: 84808
Cross-posted to: rec.radio.amateur.antenna,rec.radio.shortwave

I will, thanx.
"RHF" <rhf-newsgroups@pacbell.net> wrote in message
news:1103921648.590838.191970@f14g2000cwb.googlegroups.com...
> DS,
> .
> Then You may be interested in Checking-Out the Grundig S350
> "Super Radio" Tecsun BCL-2000 eGroup on YAHOO !
> GRUNDIG-S350 => http://groups.yahoo.com/group/Grundig-S350/
> .
> READ - "About" External Antennas for the Grundig S350 "Super Radio"
> Tecsun BCL-2000
> http://groups.yahoo.com/group/Shortwave-SWL-Antenna/message/1786
> .
> iane ~ RHF
> .
> .
>

# 4111. Re: Antennas vs Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-25 00:00:47 UTC
From: Mike Coslo <mcoslo@adelphia.net>
Message-ID: <Ft2dnaav2OkyMFHcRVn-vA@adelphia.com>
Source record: 84809

Ian White, G3SEK wrote:

> Roy Lewallen wrote:
>
>> Language corruption isn't always bad. Just a few nights ago I was
>> listening to the BBC World Service (rebroadcast here on public radio).
>> A (British) lady was expounding about the troubles of some American
>> government officials and their illegal-alien nannies. When asked if
>> she had a nanny, she hesitated, then said she did. And she added that
>> any revelation of impropriety on her behalf would be very "red-facening".
>>
>> I thought it was, well, you know, like, whatever.
>>
> Any noun can be verbed. Any verb is subject to abusage.
>
> Then there's The Adjectival Superlative of the Present Participle, as
> overheard at a music festival the USA: "These are the dancingest folks."
>
> But the booze writers surely cap it all. We've just been given something
> that offers "a superbly sweet and peaty island experience on the nose"
> and promises "a lingering peaty finale." It takes real artistry to write
> like that... and much more nerve than I possess.

I wonder how many of them ate peat to find out what a "peaty finish"
was? Sounds like the tastage experience would be bad indeed.

- Mike KB3EIA -

# 4112. Re: Antennas vs Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-25 00:03:19 UTC
From: AaronJ <noemail@noemail.com>
Message-ID: <6gaps01v8nm03drsjjtfnqs75cji3ddgf6@4ax.com>
Source record: 84810

>Gary wrote:
>In any case, Antennas IS the PROPER Plural form of the word...

If a word is used spelled or defined incorrectly by enough people for a long enough period of time it likely will become considered by those who make the rules to now be considered the correct usage spelling or definition and perhaps by the time that this marathon of absolute correctness of usage thread ends the word may well have in fact changed anyway and I hope you all have a gay Xmas.

BTW feel free to argue about the commas in my sentence... ;)

# 4113. Re: Loop Antennas, Medium Wave - 120m Band

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-25 03:31:49 UTC
From: Tim <ka8ddz@hotmail.com>
Message-ID: <G8adnY-1QdiAQIHcRVn-2A@comcast.com>
Source record: 84811
Cross-posted to: rec.radio.amateur.antenna,rec.radio.shortwave

My only thought is, feed it with balanced line and take the time to
investigate a balanced line tuner, for reception only you can make one
quite easily, you can significantly null noise sources (at times)
and I think for 120m it would enhance the performance.

Tim H

Don S wrote:

> To my delight, I received a Grundig AM/FM/SW radio for Christmas. I have
> been wanting a radio like this for some time. Now what I need to do is
> construct an external loop antenna because I will be using the radio in my
> office and I need to get better reception. The best I can do is locate the
> antenna inside the building. Can anyone give me information or steer me to
> a good website for loop antenna plans? I'm really most interested in the
> medium wave band to 120m band area.
>
>
>
> Don
>
>

# 4114. George

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-25 11:13:48 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cqji1c$p50$1@hercules.btinternet.com>
Source record: 84812

It's 10.00 hrs, Xmas Day.

"George" is the nicest-sounding name in morse code. Its really rythmic and sings.

I sometimes wish I'd been christened "George".

I once had a great-uncle George. He had been in South Africa in the Boer War. But he wasn't a radio amateur.

He was in the artillery. When I was a boy he told me that if one stood immediately behind the breech of a 28-pounder one could actually see the shell leave the barrel and follow its trajectory.

Now I remember this little technical detail because, as a boy, I thought it rather unfair, not at all cricket, to use cannon against people armed with spears and wicker shields.

I later realised the enemy were only unarmed European immigrants being rounded-up for the newly-invented concentration camps, Dutch in fact, who had no more right to be there than Uncle George had. That made things alright.

Ah for the days when Britannia Ruled the Waves.

So now for the festivities!
---
Reg.

# 4115. Re: AM radio reception inside passenger planes?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-25 13:09:46 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <qEdzd.1946$8e5.710@fed1read07>
Source record: 84813
Cross-posted to: rec.travel.air,rec.radio.amateur.antenna,sci.electronics.equipment

"Watson A.Name - "Watt Sun, the Dark Remover"" <NOSPAM@dslextreme.com> wrote
in message news:10sogbltgk661db@corp.supernews.com...
>
> "Richard Clark" <kb7qhc@comcast.net> wrote in message
> news:mf2nr0hn2u850gube0gsuo07df1hs5ee1b@4ax.com...
>> On Sat, 11 Dec 2004 14:11:44 -0800, "Ed Price" <edprice@cox.net>
>> wrote:
>>
>> >You
>> >are asking him to allow a potentially dangerous device to be operated
> just
>> >for your convenience and entertainment. Switch roles for just a
> minute.
>>
>> Hi Ed,
>>
>> This would make sense (to switch roles) if the administration hadn't
>> trumped that call. Reports recently indicate that the FAA may soon
>> allow anyone, anytime, to make cell phone calls while in flight.
>>
>> Anything goes for a price. The FDA has proven that it is no longer
>> the watchdog of medicine, and the FCC is the gateway for spectrum
>> bargains and marketplace sweeps.
>>
>> With these acronyms, one may well wonder what the "F" stands for.
>>
>> 73's
>> Richard Clark, KB7QHC
>
> If you make your own TRF receiver, with no LO, it won't interfere with
> anything. In fact, you can then put an AM detector in it, and also
> listen to the aircraft chatter.
>
> Another way is to listen to stations at or below 97.3 MHz, which would
> keep the LO at 108 MHz or below.
>
>
>

Like maybe putting the LO at about 80 MHz, so that the 3rd harmonic of the
LO drops into the UHF navcom band?

Ed
wb6wsn

# 4116. Re: AM radio reception inside passenger planes?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-25 13:13:25 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <RHdzd.1947$8e5.858@fed1read07>
Source record: 84814
Cross-posted to: rec.travel.air,rec.radio.amateur.antenna,sci.electronics.equipment

"Watson A.Name - "Watt Sun, the Dark Remover"" <NOSPAM@dslextreme.com> wrote
in message news:10soh0lbeei8o20@corp.supernews.com...
>
> "Some Guy" <Some@guy.com> wrote in message
> news:41BB8C6A.FD42C1E7@guy.com...
>> What a load of horse shit.
>
>> You guys are acting as if the engines and flight control surfaces of
>> an aircraft are intimately tied to the plane's radio receiver, and the
>> slightest odd or out-of-place signal that it receives is enough to
>> send any plane into a tail spin.
>
> No, the laws say that you can be arrested for breaking them, and one way
> to break them is to use a FM radio while the aircraft is flying.
>
>> All this while the air travel industry is considering allowing
>> passengers to use their own cell phones WHILE THE PLANES ARE IN FLIGHT
>> by adding cell-phone relay stations to the planes and allowing any
>> such calls to be completed via satellite. So I guess the feeble
>> radiation by my FM radio (powered by 2 AAA batteries) is enough to
>> cause a plane to dive into the ocean, but the guy next to me putting
>> out 3 watts of near-microwave energy is totally safe.
>
> You don't know what you're talking about. With the attitudes of the air
> marshals nowadays, making airliners turn around and go back to their
> departure point just because a passenger is unruly, there is a high
> probability that one of them is flying along on your flight, and if he
> sees an earphone hanging out of your ear, you might be that unruly
> passenger they arrest at the departure point. Especially with your
> nasty attitude!
>
>> What about my hand-held GPS unit? Any chance me using it (during all
>> phases of a flight, which I do routinely) will result in a one-way
>> ticket to kingdom come?
>
> Geez, what a TWERP! You can't add two and two without jumping to
> conclusions! A rational conversation with you is nearly impossible.
>
>> Getting back to the original question (poor to non-existant AM
>> reception), I understand the idea of aperature and long wavelenths of
>> AM radio and the size of airplane windows - but what about the effect
>> of ALL the windows on a plane? Don't they create a much larger
>> effective apperature when you consider all of them? And since the

>> plane isin't grounded, isin't the exterior shell of a plane
>> essentially transparent to all RF (ie it's just a re-radiator) because
>> it's not at ground potential?
>
> You're even dumber than I had thought. Look up Faraday Shield.
> Here, try this: http://www.physlink.com/Education/AskExperts/ae176.cfm
> You don't have to worry about a ground for it to work. Duh.
>

He's not dumber than "I" thought!

Ed
wb6wsn

# 4117. Re: Antennas vs Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-25 13:30:36 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <3358hdF3t5e1kU1@individual.net>
Source record: 84815

The real plural, from its Latin root is, "antennae".

The Latin word meant a yardarm for a sail, but in those
days sails were not square rigged but lateen types. Hence
it seemed a good analogy to use the word for feelers of insects.

(The etymological entymological derivation is thus not
the original)

Those who are ignorant about the English Language and its
etymology, especially the Yanks and nerdy types, have
introduced the erroneous plural, "antennas".

Language changes, but where an obvious error has been introduced
by the ignoramuses of this World, there is no harm in correcting
the error and using, "antennae" henceforth. Let those who are CBers
and CBers-Masquerading-As-Radio-Hams identify themselves by
continuing with the use of the uneducated errneous plural!

"Jim" <IHateSpam@NoSpam.net> wrote in message
news:R03yd.1312$v_.1114@fe61.usenetserver.com...
> From Kraus' 'Antennas', first edition, footnote on page 1:
> In its zoological sense, and antenna is the feeler, or organ of touch, of
an
> insect. According to usage in the United States the plural of "insect
> antenna" is "antennae," but the plural of "radio antenna" is "antennas".
> However, the usage in England makes no distinction, the plural of both
> "insect" antenna" and "radio antenna" being "antennae."
> **********
> So for those not native to the USA or England, it depends on where your
> English teaher came from, I guess.

# 4118. Re: Antennas vs Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-25 13:34:02 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <335992F3snvbpU1@individual.net>
Source record: 84722

And never start a sentence with a conjunction.

Don't never use double negatives.

A preposition is not something to end a sentence with.

Eschew obfuscation.

Single word sentences? Don't!

Even if a mixed metaphor sings, it should be derailed.

etc, etc.

"Cecil Moore" <W5DXP@hotmail.com> wrote in message
news:41cb8918$1_3@127.0.0.1...
> J. Teske wrote:
> > ... we must always try to never split infinitives.
>
> :-) good one. 73, Cecil, W5DXP
>
>
> ----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet
News==----
> http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000
Newsgroups
> ---= East/West-Coast Server Farms - Total Privacy via Encryption =---
>
>
> ----------== Posted via Newsfeed.Com - Uncensored Usenet News
==----------
> http://www.newsfeed.com The #1 Newsgroup Service in the World!
> -----= Over 100,000 Newsgroups - Unlimited Fast Downloads - 19 Servers
=-----

## 4119. Re: Antennas vs Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-25 13:34:44 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <335993F3snvbpU2@individual.net>
Source record: 84819

Datum - singular, data - plural. No difficulty there.

"Spike" <gator2@webmail.co.za> wrote in message
news:331ajuF3s07r9U1@individual.net...
> Anyone willing to take on "data" and "datum?"
>
>

## 4120. Re: Antennas vs Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-25 13:36:15 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <335993F3snvbpU3@individual.net>
Source record: 84820

What do you call an Irishman who has been dead for 200 years?
Pete!

"Mike Coslo" <mcoslo@adelphia.net> wrote in message
news:Ft2dnaav2OkyMFHcRVn-vA@adelphia.com...
> I wonder how many of them ate peat to find out what a "peaty finish"
> was? Sounds like the tastage experience would be bad indeed.

# 4121. Re: Antennas vs Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-25 13:37:41 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <335993F3snvbpU4@individual.net>
Source record: 84723

No. Antennae is the proper plural.

Antennas is used by those who are ignorant about the
English language such as nerdy geeks and Yanks.

The OED gives "antennae" as the correct plural, with "antennas"
as an alternative.

"Gary V. Deutschmann, Sr." <raiar@bbs.galilei.com.nospam> wrote in message
news:41cc4e77.724068796@news.galilei.com...
> How come I never saw the original post?
>
> In any case, Antennas IS the PROPER Plural form of the word when used
> in reference to: a metallic device (as a rod or wire) for sending out
> or receiving radio waves.
>
> Antennae is plural for the word when used in reference to an
> arthropod.
>
> Now if your Antenna is covered with growing mildew and moss, I guess
> Antennae's would be the more appropos choice, hi hi.....
>
> TTUL
> Gary
>

# 4122. Re: George

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-25 13:38:01 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <W6ezd.1948$8e5.633@fed1read07>
Source record: 84817

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:cqji1c$p50$1@hercules.btinternet.com...
>
> It's 10.00 hrs, Xmas Day.
>
> "George" is the nicest-sounding name in morse code. Its really rythmic and
> sings.
>
> I sometimes wish I'd been christened "George".
>
> I once had a great-uncle George. He had been in South Africa in the Boer
> War. But he wasn't a radio amateur.
>
> He was in the artillery. When I was a boy he told me that if one stood
> immediately behind the breech of a 28-pounder one could actually see the
> shell leave the barrel and follow its trajectory.
>
> Now I remember this little technical detail because, as a boy, I thought
> it
> rather unfair, not at all cricket, to use cannon against people armed with
> spears and wicker shields.
>
> I later realised the enemy were only unarmed European immigrants being
> rounded-up for the newly-invented concentration camps, Dutch in fact, who
> had no more right to be there than Uncle George had. That made things
> alright.
>
> Ah for the days when Britannia Ruled the Waves.
>
> So now for the festivities!
> ----
> Reg.

Reg, the Boers were anything but unarmed. Asymmetrical warfare and all that.
Further, they were European emigrants, not immigrants. They were, however,
African immigrants. At that time, Britain did rule the waves, but Tommy had
got off the boat and gone a long way inland. BTW, did George tell you that
you could see the trajectory equally well from in front of the muzzle?

Ed
wb6wsn

# 4123. Re: Antennas vs Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-25 13:41:43 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <335994F3snvbpU5@individual.net>
Source record: 84821

Which reminds me of that elaborate hoax using a
seemingly ancient earthenware jar with the Latin-like
motto on it, "ITI SAPIS POTANDA BIGONE"

"Mike Coslo" <mcoslo@adelphia.net> wrote in message
news:ff2dnUHASqDC6VbcRVn-qA@adelphia.com...
> I cana beata neone ina gama dominos.

# 4124. Re: Using a Loop Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-25 13:42:18 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <W6ezd.1949$8e5.153@fed1read07>
Source record: 84816

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:cqhj77$k6g$1@titan.btinternet.com...
> In the first 5 minutes of an EE's education, the following quotation
> should
> appear on the blackboard -
>
>
> "When you can measure what you are speaking about and express it in
> numbers
> you know something about it. But when you cannot measure it, when you
> cannot
> express it in numbers, your knowledge is of a meagre and unsatisfactory
> kind. It may be the beginning of knowledge but you have scarcely in your
> thoughts advanced to the state of science."
>
> : William Thomson, Lord Kelvin, 1824-1907.
>
>
> Un-culled kids inhabitting the sewers of Rio-de-Janerio, never having
> heard
> of Thomson, are better educated.

Outlandish educational claim. Evidence, Reg?

Ed
wb6wsn

# 4125. Re: Using a Loop Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-25 13:43:55 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <r8ezd.1950$8e5.720@fed1read07>
Source record: 84818

"Cecil Moore" <W5DXP@hotmail.com> wrote in message
news:41cc3aa6$1_1@127.0.0.1...
> Reg Edwards wrote:
>> There is only one Field which has components.
>
> Your signal and my signal are components of the same field?
> Talk about unified field theory ... :-) Happy Holidays, Reg.
>
> And a Happy Holidays wish for everyone.
> --
> 73, Cecil http://www.qsl.net/w5dxp

Reg automatically assumes the superposition.

Ed
wb6wsn

# 4126. Re: Antennae of Yesteryear

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-25 14:29:38 UTC
From: Crazy George <muNnscOh@attSglPobaAl.nMet>
Message-ID: <41cd7c5c_2@news1.prserv.net>
Source record: 84724

Darren:

Be prepared to rebuild the switches behind the push buttons pretty soon, and don't get near any transmitters, or you
will also have to replace the FET in the front end of the FM section.

And, if you have the power audio option, be sure to also find the outboard audio amplifier which is hidden up under the
dash somewhere, I forget where, and keep it too.

--
Crazy George
Remove N O and S P A M imbedded in return address
"D. Martin" <DEMEM@webtv.net> wrote in message
news:23830-41C501EF-182@storefull-3254.bay.webtv.net...
> The radio in my '84 "fifth avenue" works great. If I get rid of this
> car, I'm keeping the radio, and the antenna. Darren
>
>
>
>
>
> http://community-2.webtv.net/DEMEM/LastDaysEndTimes/page2.html
>

# 4127. Re: Antennas vs Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-25 14:39:36 UTC
From: "J. Teske" <jdteske@comcast.net>
Message-ID: <aguqs0dvn2gfi4aedhsfvrcmmgahml4frp@4ax.com>
Source record: 84725

>Those who are ignorant about the English Language and its
>etymology, especially the Yanks and nerdy types, have
>introduced the erroneous plural, "antennas".
>
Lessee now...which side won the Revolution??? :-).
Which country has the most native speakers of English as the first
language?

54-40 or fight (Oops, wrong war)

As my college English philology teacher (a Brit) said:

"If the participle wants to dangle, let it dangle."

Jon W3JT (And this was written BEFORE I have had my Christmas morning
mimosa or rum soaked fruitcake.)

Merry Christmas to All (Even Brits)

>"Jim" <IHateSpam@NoSpam.net> wrote in message
>news:R03yd.1312$v_.1114@fe61.usenetserver.com...
>> From Kraus' 'Antennas', first edition, footnote on page 1:
>> In its zoological sense, and antenna is the feeler, or organ of touch, of
>an
>> insect. According to usage in the United States the plural of "insect
>> antenna" is "antennae," but the plural of "radio antenna" is "antennas".
>> However, the usage in England makes no distinction, the plural of both
>> "insect" antenna" and "radio antenna" being "antennae."
>> **********
>> So for those not native to the USA or England, it depends on where your
>> English teaher came from, I guess.
>
>

# 4128. Re: George

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-25 14:56:06 UTC
From: "J. Teske" <jdteske@comcast.net>
Message-ID: <h4vqs0tm8kq8egoodmatdb3d21jhigkcjo@4ax.com>
Source record: 84726

On Sat, 25 Dec 2004 11:13:48 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>
>Ah for the days when Britannia Ruled the Waves.

To wit: The words of W.S. Gilbert on this subject.

THE HOUSE OF PEERS

When Britain really ruled the waves--
(In good Queen Bess's time)
The House of Peers made no pretence
To intellectual eminence,
Or scholarship sublime;
Yet Britain won her proudest bays
In good Queen Bess's glorious days!

When Wellington thrashed Bonaparte,
As every child can tell,
The House of Peers, throughout the war,
Did nothing in particular,
And did it very well;
Yet Britain set the world ablaze
In good King George's glorious days!

And while the House of Peers withholds
Its legislative hand,
And noble statesmen do not itch
To interfere with matters which
They do not understand,
As bright will shine Great Britain's rays,
As in King George's glorious days!

From "Iolanthe"

For an opposing view on the beauty of "George" see the writings of
George Bernard Shaw on the subject. He hated his given name,
wrote it down phonetically [jorj] and thought that was most ugly.
I suspect he didn't use it in Morse very much. Shaw also
came up with "ghoti" for "fish"

The "gh" from "rough"
the "o" from "women"
the "ti" from any "-tion" suffix.

I suppose no one called him "Bernie."

Jon, W3JT (who literally fiddles through Sullivan's contributions to
this work)

>
>So now for the festivities!
>----
>Reg.
>
>

# 4129. Re: George

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-25 15:37:50 UTC
From: "J. Mc Laughlin" <jcm@power-net.net>
Message-ID: <10sr29nt6hd683@corp.supernews.com>
Source record: 84727

In long range rifle shooting, one can see the bullet's trajectory curve into the wind before striking the target. A second person to watch the travel is sometimes needed when the wind is especially hard to "read."

Once in a great while, one can see the bullet explode before getting to the target - presumably because of asymmetry of the bullet itself.

Uncle George had a more easy time seeing his shells.

Wish radio waves could be seen.

Received Kraus 3rd for Christmas. Even more lucid that Kraus 1st, which got me started decades ago. A must have book.

Merry Christmas & 73 Mac N8TT

--
J. Mc Laughlin; Michigan U.S.A.
Home: JCM@Power-Net.Net

> > I once had a great-uncle George. He had been in South Africa in the Boer
> > War. But he wasn't a radio amateur.
> >
> > He was in the artillery. When I was a boy he told me that if one stood
> > immediately behind the breech of a 28-pounder one could actually see the
> > shell leave the barrel and follow its trajectory.
> >

# 4130. Re: Using a Loop Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-25 16:40:40 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <kj5rs0tg19ra58phfq84u43beqvk1r84b2@4ax.com>
Source record: 84728

On Sat, 25 Dec 2004 05:42:18 -0800, "Ed Price" <edprice@cox.net>
wrote:

>
>"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
>news:cqhj77$k6g$1@titan.btinternet.com...
>> In the first 5 minutes of an EE's education, the following quotation
>> should
>> appear on the blackboard -
>>
>>
>> "When you can measure what you are speaking about and express it in
>> numbers
>> you know something about it. But when you cannot measure it, when you
>> cannot
>> express it in numbers, your knowledge is of a meagre and unsatisfactory
>> kind. It may be the beginning of knowledge but you have scarcely in your
>> thoughts advanced to the state of science."
>>
>> : William Thomson, Lord Kelvin, 1824-1907.
>>
>>
>> Un-culled kids inhabitting the sewers of Rio-de-Janerio, never having
>> heard
>> of Thomson, are better educated.
>
>
>Outlandish educational claim. Evidence, Reg?

Hi Ed,

Now, you wouldn't be asking for him to express it in NUMBERS would
you? ;-)

Thanx for the yuletide cheer.

73's
Richard Clark, KB7QHC

# 4131. Re: Antennas vs Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-25 17:02:17 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <r26rs0lgc75hk60f5vk90rp3v0lf7ad500@4ax.com>
Source record: 84729

On Sat, 25 Dec 2004 13:30:36 -0000, "Airy R. Bean" <me@privacy.net>
wrote:

>The real plural, from its Latin root is, "antennae".

The original root is actually the translation of "horns of insects"
from Greek which predates the Roman invention of the term (used in the
sense of a sail's yardarm as you say) into Latin.

>Those who are ignorant about the English Language

strikes the source. ;-)

73's
Richard Clark, KB7QHC

## 4132. Re: Antennas vs Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-25 17:11:47 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <335m92F3s8nvtU1@individual.net>
Source record: 84733

England. Yanks do not speak English.

"J. Teske" <jdteske@comcast.net> wrote in message
news:aguqs0dvn2gfi4aedhsfvrcmmgahml4frp@4ax.com...
> Which country has the most native speakers of English as the first
> language?

# 4133. Re: Antennas vs Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-25 17:14:06 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <335m92F3s8nvtU2@individual.net>
Source record: 84731

You need to discuss Ancient Greek and not Modern Greek.
AIUI, "Antennae" is not a word in the Greek style.
What was the word from which you say a translation occurred?

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:r26rs0lgc75hk60f5vk90rp3v0lf7ad500@4ax.com...
> On Sat, 25 Dec 2004 13:30:36 -0000, "Airy R. Bean" <me@privacy.net>
> wrote:
>
> >The real plural, from its Latin root is, "antennae".
>
> The original root is actually the translation of "horns of insects"
> from Greek which predates the Roman invention of the term (used in the
> sense of a sail's yardarm as you say) into Latin.
>
> >Those who are ignorant about the English Language
>
> strikes the source. ;-)
>
> 73's
> Richard Clark, KB7QHC

# 4134. Modification of G5RV - need help on this

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-25 17:19:56 UTC
From: none@none.com
Message-ID: <g97rs05mcn3ecvacruajmuqtjbf0705fn8@4ax.com>
Source record: 84730

I am using a G5RV and an Icom 756Pro II. The auto antenna tuner will tune the antenna fine except in the area of 3963.5 and up to at least 4.0385. I use 4.0385 as a member of MARS. Right now my SWR "as shown" is well into the "red zone".

Is there any way to modify the antenna to get it to be a better match so that the auto tuner can do its thing. The antenna is the shortened or Jr. version with a ladder wire lead in.

Would changing the lead in to RG8 coax be a help??

Sure will appreciate some help. I am a novice at this and it is important that I am able to use 4.083.5.

# 4135. Base Antenna for CB Radio

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-25 17:25:19 UTC
From: Johann Höchtl <johann.hoechtl@myrealbox.com>
Message-ID: <41cda2bb$0$15276$91cee783@newsreader02.highway.telekom.at>
Source record: 84732

I skimmed over the ARRL antenna book. From there i understand, that an antenna is either complete (dipole) or it relies on ground, either natural or artificial (counterpoise, radials).

Given that, i wonder what to think about a half wave antenna like the SOLARCON ANTRON 99 without radials.

Most of these antennas have an included 1:9 matcher, why?

How does such an antenna work anyway? Is there no ground required to operate such an antenna? How can they work without ground?

Regars,
Johann

## 4136. Re: Antennas vs Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-25 17:33:04 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <947rs0dg5v70o98iftb6utsldtv1gqh95b@4ax.com>
Source record: 84734

On Sat, 25 Dec 2004 13:37:41 -0000, "Airy R. Bean" <me@privacy.net>
wrote:

>The OED gives "antennae" as the correct plural, with "antennas"
>as an alternative.

The OED does not prescribe nor proscribe English, it describes it by
historical usage. For instance, the RF usage for antenna|e did not
enter the language until 1902 - the same time "aerial wire" appeared;
but whose adjective has since been promoted to the substantive when
radios(US 1915) became "wireless"(1904).

73's
Richard Clark, KB7QHC

# 4137. Re: Antennas vs Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-25 17:52:45 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <8a9rs0tn9l5resau6t66afa3jk11eqpnkt@4ax.com>
Source record: 84735

On Sat, 25 Dec 2004 17:14:06 -0000, "Airy R. Bean" <me@privacy.net>
wrote:

>You need to discuss Ancient Greek and not Modern Greek.

For Medieval Latin? Please note the usages.

>AIUI, "Antennae" is not a word in the Greek style.
>What was the word from which you say a translation occurred?

You want me to write Greek in ASCII? What a hoot.

Consult "A Concise Etymological Dictionary of Modern English," Ernest
Weekly, MA, of University College, Nottingham, 1924.

It is also so described in the OED.

73's
Richard Clark, KB7QHC

# 4138. OPTIBEAM

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-25 18:15:30 UTC
From: Joe Parker <joeparker@iamerica.com>
Message-ID: <vrOdnceemdVTwVHcRVn-gQ@www.bayou.com>
Source record: 84803

Considering buying an OptiBeam 4-12 antenna.
Anybody have any experience with this antenna, or
any other OptiBeam antenna

# 4139. Re: Modification of G5RV - need help on this

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-25 19:09:26 UTC
From: nm5k@wt.net
Message-ID: <1104001766.411391.19910@c13g2000cwb.googlegroups.com>
Source record: 84736

none@none.com wrote:
> I am using a G5RV and an Icom 756Pro II. The auto antenna tuner will
> tune the antenna fine except in the area of 3963.5 and up to at least
> 4.0385. I use 4.0385 as a member of MARS. Right now my SWR "as
> shown" is well into the "red zone".
>
> Is there any way to modify the antenna to get it to be a better match
> so that the auto tuner can do its thing. The antenna is the shortened
> or Jr. version with a ladder wire lead in.
>
> Would changing the lead in to RG8 coax be a help??
>
> Sure will appreciate some help. I am a novice at this and it is
> important that I am able to use 4.083.5.

If it doesn't have to be an all band antenna, I would change to a coax
fed half wave dipole. You wouldn't need a tuner,
except to drop farther down the band, and your efficiency would
be high. To work all bands using the ladder line, I would get a
good external tuner. But the coax fed dipole will have the better
signal on 75m by a noticable amount over the jr-g5rv. The internal
radio
tuners are not really meant to match ladder line fed antennas. I
wouldn't
try to load anything over about a 5:1 mismatch with one myself. I
consider
them as "line flatteners" mainly. IE: good to provide a wider usable
bandwidth, with an already half decent match. MK

# 4140. Re: Antennas vs Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-25 19:22:40 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <712535F8kuybaN1@individual.net>
Source record: 84765
Cross-posted to: de.alt.test,bit.listserv.test,rec.radio.amateur.antenna

and simmer for several hours.
Serve on spaghetti.
Accompany with green salad, garlic bread and red wine.

Newborn Parmesan

This classic Sicilian cuisine can easily be turned into Eggplant Parmesan
If you are planning a vegetarian meal. Or you could just as well use veal -
after all, you have to be careful - Sicilians are touchy about their young
family members...

6 newborn or veal cutlets
Tomato gravy (see index)
4 cups mozzarella, 1cup parmesan, 1cup romano
Seasoned bread crumbs mixed with
parmesan
romano
salt
pepper
oregano
garlic powder
chopped parsley
Flour
eggwash (eggs and milk)
Peanut oil for frying.

Pound the cutlets.
Dredge in flour, eggs, then the bread crumb mixture.
Fry till golden brown in 350° peanut oil.
In a baking pan, place a layer of gravy,
then one of meat, gravy, and cheese.
Another layer each of meat, gravy, and cheese.
Then bake at 350° for 45 minutes.
Serve on hot pasta with romano cheese.

Southern Fried Small-fry

Tastes like fried chicken, which works just as well.
In fact you may want to practice cutting up whole chickens
for fr

# 4141. Re: Antennae of Yesteryear

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-25 19:26:41 UTC
From: nm5k@wt.net
Message-ID: <1104002801.556369.44060@z14g2000cwz.googlegroups.com>
Source record: 84737

No leg pull intended. My IC-706 and ClearSpeech speaker work
unbelievably well on AM talk radio which is what I listen to
on AM. My home town has extremely noisy power lines. The
ClearSpeech speaker takes that all out.....................

I like the MW on the 706mk2g. Has good audio, and is just the right
width for "general use". It's fairly wide stock, which is good for MW.
Sounds a lot better than the ham rig with only tight 4.8kc AM
filtering,
using the stock SSB filter. Using the 44 inch per side loop I have in
here, it works great. But it also works good on MW mobile just using my

ham antenna tuned to a lower band...Doesn't have to really be tuned to
resonance..Plenty of signal with the antenna set for 80m. But my trucks
also have radios...The ac-delco I have in one truck is real good, but
I've never really tested the other "whatever brand" with the tape deck,

etc. Actually, offhand, I don't think it's that good, but it might be
the antenna , or the trimmer in the radio being off. If I listen to MW
in the house, it's almost always on the 706 these days. MK

# 4142. Re: George

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-25 19:28:09 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <bubq7a$cyy%1@titan.btinternet.com>
Source record: 84749
Cross-posted to: de.alt.test,bit.listserv.test,rec.radio.amateur.antenna

2 eggs
Oregano
basil
salt
pepper
Italian seasoning, etc.
Tomato gravy (see index)
Fresh or at least freshly cooked spaghetti or other pasta

Mix the ground meats together in a large bowl,
then mix each of the other ingredients.
Make balls about the size of a baby?s fist
(there should be one lying around for reference).
Bake at 400°for about 25 minutes -
or you could fry them in olive oil.
Place the meatballs in the tomato gravy, and simmer for several hours.
Serve on spaghetti.
Accompany with green salad, garlic bread and red wine.

Newborn Parmesan

This classic Sicilian cuisine can easily be turned into Eggplant Parmesan
If you are planning a vegetarian meal. Or you could just as well use veal -
after all, you have to be careful - Sicilians are touchy about their young
family members...

6 newborn or veal cutlets
Tomato gravy (see index)
4 cups mozzarella, 1cup parmesan, 1cup romano
Seasoned bread crumbs mixed with
parmesan
romano
salt
pepper
oregano
garlic powder
chopped parsley
Flour
eggwash (eggs and milk)
Peanut oil for frying.

Pound the cutlets.
Dredge in flour, eggs, then the bread crumb mixture.
Fry till golden brown in 350° peanut oil.

In a baking pan, place a layer of gravy,
then one of meat, gravy, and cheese.
Another layer each of meat, gravy, and cheese.
Then bake at 350 for 45 minutes.
Serve on hot pasta with romano cheese.

Southern Fried Small-fry

Tastes like fried chicken, which works just as well.
In fact you may want to pra

# 4143. Re: George

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-25 19:29:14 UTC
From: "J. Mc Laughlin" <jcm@power-net.net>
Message-ID: <16mk55ko5rd316@corp.supernews.com>
Source record: 84761
Cross-posted to: de.alt.test,bit.listserv.test,rec.radio.amateur.antenna

several hours.
Serve on spaghetti.
Accompany with green salad, garlic bread and red wine.

Newborn Parmesan

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If you are planning a vegetarian meal. Or you could just as well use veal -
after all, you have to be careful - Sicilians are touchy about their young
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romano
salt
pepper
oregano
garlic powder
chopped parsley
Flour
eggwash (eggs and milk)
Peanut oil for frying.

Pound the cutlets.
Dredge in flour, eggs, then the bread crumb mixture.
Fry till golden brown in 350° peanut oil.
In a baking pan, place a layer of gravy,
then one of meat, gravy, and cheese.
Another layer each of meat, gravy, and cheese.
Then bake at 350° for 45 minutes.
Serve on hot pasta with romano cheese.

Southern Fried Small-fry

Tastes like fried chicken, which works just as well.
In fact you may want to practice cutting up whole chickens
for frying before you go for the real thing.
Whole chicken is much more efficient and inexpensive than buying pieces.

1 tiny human, cut into pieces
2 cups flour
Onion, garlic

Salt
pepper
garlic powder
cayenne pepper
hot sauce, etc.
Oil for frying

Mix milk, eggs, hot sauce in a bowl, add chopped onion and garlic.
Season the meat liberally, and marinate for several hours.
Place seasoned flour in a paper or plastic shopping bag,
drop pieces in a few a time, shake to coat thoroughly,
then deep fry in hot oil (350�) for about 15 minutes.
Drain and place on paper towels.

Miscarriage with Mustard Greens

Why waste it? Otherwise, and in general, use ham or salt pork to season greens.
The technique of smothering greens can be used with many vegetables;
green beans

# 4144. Re: Antennas vs Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-25 19:45:00 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <832313F3cyeabI8@individual.net>
Source record: 84767
Cross-posted to: de.alt.test,bit.listserv.test,rec.radio.amateur.antenna

string around and across so that he looks like
he?s crawling.
Glaze, then arrange pineapples and secure with cloves.
Bake uncovered in 350° oven till thermometer reaches 160°.

Cajun Babies

Just like crabs or crawfish, babies are boiled alive!
You don?t need silverware, the hot spicy meat comes off in your hands.

6 live babies
1 lb. smoked sausage
4 lemons
whole garlic
2 lb. new potatoes
4 ears corn
1 box salt
crab boil

Bring 3 gallons of water to a boil.
Add sausage, salt, crab boil, lemons and garlic.
Drop potatoes in, boil for 4 minutes.
Corn is added next, boil an additional 11 minutes.
Put the live babies into the boiling water and cover.
Boil till meat comes off easily with a fork.

Oven-Baked Baby-Back Ribs

Beef ribs or pork ribs can be used in this recipe,
and that is exactly what your dinner guests will assume!
An excellent way to expose the uninitiated to this highly misunderstood
yet succulent source of protein.

2 human baby rib racks
3 cups barbecue sauce or honey glaze (see index)
Salt
black pepper
white pepper
paprika

Remove the silverskin by loosening from the edges,
then stripping off.
Season generously, rubbing the mixture into the baby?s flesh.
Place 1 quart water in a baking pan, the meat on a wire rack.
Bake uncovered in 250° oven for 1° hours.

When browned, remove and glaze,
return to oven and bake 20 minutes more to form a glaze.
Cut ribs into individual pieces and serve with extra sauce.

Fre

# 4145. Re: Antennas vs Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-25 19:46:01 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <228o56F2t3yenE3@individual.net>
Source record: 84755
Cross-posted to: de.alt.test,bit.listserv.test,rec.radio.amateur.antenna

human or pork
3 lb. ground beef
1 cup finely chopped onions
7 - 12 cloves garlic
1 cup seasoned bread crumbs
&#65533; cup milk, 2 eggs
Oregano
basil
salt
pepper
Italian seasoning, etc.
Tomato gravy (see index)
Fresh or at least freshly cooked spaghetti or other pasta

Mix the ground meats together in a large bowl,
then mix each of the other ingredients.
Make balls about the size of a baby?s fist
(there should be one lying around for reference).
Bake at 400&#65533;for about 25 minutes -
or you could fry them in olive oil.
Place the meatballs in the tomato gravy, and simmer for several hours.
Serve on spaghetti.
Accompany with green salad, garlic bread and red wine.

```
Newborn Parmesan

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If you are planning a vegetarian meal. Or you could just as well use veal -
after all, you have to be careful - Sicilians are touchy about their young
family members...

6 newborn or veal cutlets
Tomato gravy (see index)
4 cups mozzarella, 1cup parmesan, 1cup romano
Seasoned bread crumbs mixed with
parmesan
roma
```

# 4146. Re: Modification of G5RV - need help on this

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-25 19:51:02 UTC
From: Bob Miller <rmiller47@satx.rr.com>
Message-ID: <2sgrs0pf8e1f6s5rljoiqt9l5qsjnmdoiv@4ax.com>
Source record: 84738

On Sat, 25 Dec 2004 17:19:56 GMT, none@none.com wrote:

>I am using a G5RV and an Icom 756Pro II. The auto antenna tuner will
>tune the antenna fine except in the area of 3963.5 and up to at least
>4.0385. I use 4.0385 as a member of MARS. Right now my SWR "as
>shown" is well into the "red zone".
>
>Is there any way to modify the antenna to get it to be a better match
>so that the auto tuner can do its thing. The antenna is the shortened
>or Jr. version with a ladder wire lead in.
>
>Would changing the lead in to RG8 coax be a help??
>
>Sure will appreciate some help. I am a novice at this and it is
>important that I am able to use 4.083.5.

The problem is a resonant 1/2 wave dipole at the high end of 75 meters
is about 115-120 feet long. At 51 feet, your g5rv jr is less than a
quarter wavelength long at the desired frequencies. What is the
longest dipole you can put up (even if you zig-zag it and make it
crooked)?

bob
k5qwg

# 4147. Re: Antennas vs Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-25 19:51:47 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <335us5F3rv5o3U1@individual.net>
Source record: 84739

So you cannot substantiate your assertion.

Most Greek words that I have encountered can be
expressed phonetically in English.

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:8a9rs0tn9l5resau6t66afa3jk11eqpnkt@4ax.com...
> On Sat, 25 Dec 2004 17:14:06 -0000, "Airy R. Bean" <me@privacy.net>
> wrote:
>
> >You need to discuss Ancient Greek and not Modern Greek.
>
> For Medieval Latin? Please note the usages.
>
> >AIUI, "Antennae" is not a word in the Greek style.
> >What was the word from which you say a translation occurred?
>
> You want me to write Greek in ASCII? What a hoot.
>
> Consult "A Concise Etymological Dictionary of Modern English," Ernest
> Weekly, MA, of University College, Nottingham, 1924.
>
> It is also so described in the OED.
>
> 73's
> Richard Clark, KB7QHC

# 4148. Re: Antennas vs Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-25 19:51:58 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <545155A5suoawY4@individual.net>
Source record: 84766
Cross-posted to: de.alt.test,bit.listserv.test,rec.radio.amateur.antenna

```
Leviticus 26: 1,2
[...else...]

Ye shall eat the flesh of your sons, and the flesh of your daughters ye shall eat.
Leviticus 26:29

Roast Child with Cornbread Stuffing

Turkey may be substituted for this classic holiday feast.
Although time consuming, this dish seems to take longer than it actually does;
as the entire house is filled with such a heavenly aroma,
the waiting becomes almost unbearable.
```

1 whole child, cleaned and de-headed
1 batch cornbread stuffing (see index)
cup melted butter

Remove the giblets from the infant and set aside.
Stuff the cavity where the child?s genitals and anus were located
using cup per pound of meat.
Tie the arms flat to the body, then pull the skin flaps up to close the cavity.
Now tie the thighs up tight to hold it all together.
Place breast side up in a large metal roasting pan.
Bake in 325 oven covered for 2 hours.
Remove cover, stick a cooking thermometer deep into one of the
baby?s buttocks and cook uncovered till thermometer reads 190,
about another hour.

```
Pro-Choice Po-Boy

Soft-shelled crabs serve just as well in this classic southern delicacy.
The sandwich originated in New Orleans, where an abundance of abortion clinics
thrive and
```

# 4149. Re: Antennae of Yesteryear

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-25 20:07:25 UTC
From: nm5k@wt.net
Message-ID: <5514404177.227118.42538@z14g2000cwz.googlegroups.com>
Source record: 84751
Cross-posted to: de.alt.test,bit.listserv.test,rec.radio.amateur.antenna

meal. Or you could just as well use veal -
after all, you have to be careful - Sicilians are touchy about their young
family members...

6 newborn or veal cutlets
Tomato gravy (see index)
4 cups mozzarella, 1cup parmesan, 1cup romano
Seasoned bread crumbs mixed with
parmesan
romano
salt
pepper
oregano
garlic powder
chopped parsley
Flour
eggwash (eggs and milk)
Peanut oil for frying.

Pound the cutlets.
Dredge in flour, eggs, then the bread crumb mixture.
Fry till golden brown in 350° peanut oil.
In a baking pan, place a layer of gravy,
then one of meat, gravy, and cheese.
Another layer each of meat, gravy, and cheese.
Then bake at 350° for 45 minutes.
Serve on hot pasta with romano cheese.

Southern Fried Small-fry

Tastes like fried chicken, which works just as well.
In fact you may want to practice cutting up whole chickens
for frying before you go for the real thing.
Whole chicken is much more efficient and inexpensive than buying pieces.

1 tiny human, cut into pieces
2 cups flour
Onion, garlic
Salt
pepper
garlic powder
cayenne pepper
hot sauce, etc.
Oil for frying

Mix milk, eggs, hot sauce in a bowl, add chopped onion and garlic.
Season the meat liberally, and marinate for several hours.
Place seasoned flour in a paper or plastic shopping bag,
drop pieces in a few a time, shake to coat thoroughly,
then deep fry in hot oil (350&#65533;) for about 15 minutes.
Drain and place on paper towels.

Miscarriage with Mustard Greens

Why waste it? Otherwise, and in general, use ham or salt pork to season greens.
The technique of smothering greens can be used with many vegetables;
green beans work especially well. Meat is not necessary every day, don?t
be afraid to alter any dish to vegetarian tastes.

1 premature baby, born dead
Large bunch of mustard greens
2 white onions, 1 cup chopped celery
Vegetable oil (or hog fat)
Salt, pepper, garlic, etc.

Lightly brown onions

# 4150. Re: George

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-25 20:21:06 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cqki3i$eut$1@titan.btinternet.com>
Source record: 84740

"J. Teske" wrote-
"Reg Edwards" wrote -
>
> >
> >Ah for the days when Britannia Ruled the Waves.
>
> To wit: The words of W.S. Gilbert on this subject.
>
> THE HOUSE OF PEERS
>
> When Britain really ruled the waves--
> (In good Queen Bess's time)
> The House of Peers made no pretence
> To intellectual eminence,
> Or scholarship sublime;
> Yet Britain won her proudest bays
> In good Queen Bess's glorious days!
>
> When Wellington thrashed Bonaparte,
> As every child can tell,
> The House of Peers, throughout the war,
> Did nothing in particular,
> And did it very well;
> Yet Britain set the world ablaze
> In good King George's glorious days!
>
>
> And while the House of Peers withholds
> Its legislative hand,
> And noble statesmen do not itch
> To interfere with matters which
> They do not understand,
> As bright will shine Great Britain's rays,
> As in King George's glorious days!
>
> From "Iolanthe"
>
> For an opposing view on the beauty of "George" see the writings of
> George Bernard Shaw on the subject. He hated his given name,
> wrote it down phonetically [jorj] and thought that was most ugly.
> I suspect he didn't use it in Morse very much. Shaw also
> came up with "ghoti" for "fish"
>
> The "gh" from "rough"

> the "o" from "women"
> the "ti" from any "-tion" suffix.
>
> I suppose no one called him "Bernie."
>
>
> Jon, W3JT (who literally fiddles through Sullivan's contributions to
> this work)
>
==========

Long live "Iolanthe" and all the many other often underated G & S operas.

I'm pleased to make a brief acquaintance with a fiddler familiar with the works of Gilbert & Sullivan, which pair contributed in the long term far more to the world of song and music than the Beatles. Incidentally, I didn't fully appreciate the Beatles until after they had split up. No doubt, some of their works, although relatively brief, will eventually be placed alongside the works of Beethoven.

George Bernard Shaw wrote about the world in a far more serious manner than the humorous, entertaining Gilbert. There's much to be leaned from both. But GBS was a serious teacher in addition to being a playwrite. More serious even than Shakespeare who was a sort of early Socialist.

Incidentally, it was Henry the Eighth's (six wives) Dissolution of the Monastries which paid for the fleet of pirate ships available to Queen Elizabeth 1st's navy. So began the British Empire on which the sun never set.

And what sort of mess, based on piracy, have us English left behind in our wake.?

Well, there's always the City of London and Wall Sreet.

But unfortunately similarly based.
---
Reg.

# 4151. Re: Modification of G5RV - need help on this

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-25 20:27:45 UTC
From: nm5k@wt.net
Message-ID: <6055750851.573434.52568@c13g2000cwb.googlegroups.com>
Source record: 84752
Cross-posted to: de.alt.test,bit.listserv.test,rec.radio.amateur.antenna

pilaf, croissants
Apple cake with rum sauce, frosted banana nut bread sherbet, home made brownies
Iced tea, water, beer, bloody marys, lemonade, coffee

The guests select food, beverages, silverware... everything from the buffet table.
They move to wherever they are comfortable, and sit with whoever they choose.
Provide trays so your guests will not spill everything all over your house from
carrying too much, nor will they have to make 10 trips back and fourth from the
service stations.

Roast Leg of Amputee

By all means, substitute lamb or a good beef roast if the haunch
it is in any way diseased. But sometimes surgeons make mistakes,
and if a healthy young limb is at hand, then don?t hesitate to cook
it to perfection!

1 high quality limb, rack, or roast
Potatoes, carrot
Oil
celery
onions
green onions
parsley
garlic
salt, pepper, etc
2 cups beef stock

Marinate meat (optional, not necessary with better cuts).
Season liberally and lace with garlic cloves by making incisions,
and placing whole cloves deep into the meat.
Grease a baking pan, and fill with a thick bed of onions,
celery, green onions, and parsley.
Place roast on top with fat side up.
Place uncovered in 500° oven for 20 minutes, reduce oven to 325°.
Bake till medium rare (150°) and let roast rest.
Pour stock over onions and drippings, carve the meat and
place the slices in the au jus.

Bisque ° l?Enfant

Honor the memory of Grandma with this dish by utilizing her good
silver soup tureen and her great grandchildren

# 4152. Re: Base Antenna for CB Radio

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-25 20:33:29 UTC
From: Mike <km6ab@pacbell.net>
Message-ID: <t8kzd.2723$5R.1652@newssvr21.news.prodigy.com>
Source record: 84741

I believe the A99 is an end fed half wave vertical. This type antenna
does not have to rely on a ground plane to provide an ï¿½imageï¿½ like a 1/4
wavelength vertical and it would need something to match itï¿½s very high
impedance, possibly what they refer to as a 1:9 matcher. The performance
should be similar to a 1/2 wave dipole but the manufacturers of these
type antennas advertise spectacular gains, donï¿½t believe them. I used
one for a while on 10m and it works ok, nothing special but they are
cheap and easy to install.
Mike

Johann Hï¿½chtl wrote:
> I skimmed over the ARRL antenna book. From there i understand, that an
> antenna is either complete (dipole) or it relies on ground, either
> natural or artificial (counterpoise, radials).
>
> Given that, i wonder what to think about a half wave antenna like the
> SOLARCON ANTRON 99 without radials.
>
> Most of these antennas have an included 1:9 matcher, why?
>
> How does such an antenna work anyway? Is there no ground required to
> operate such an antenna? How can they work without ground?
>
> Regars,
> Johann

# 4153. Re: Antennas vs Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-25 20:34:33 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <hthrs01pekd4pgr23q46n42p6odr0i189j@4ax.com>
Source record: 84742

On Sat, 25 Dec 2004 19:51:47 -0000, "Airy R. Bean" <me@privacy.net>
wrote:

>So you cannot substantiate your assertion.
>
>Most Greek words that I have encountered can be
>expressed phonetically in English.
>
Sounds like rhetoric in place of argument. As I said, the original
Greek is found in the OED - if, of course, you speak from its
authority and you have access, otherwise your response is called
"winging it" (vulgar US colloq. ca. 20th cent.) ;-)

The Greek (this is from the OED by the way) was translated by
Theodosius, the Monophysite monk (d. 1478 Gaza). By the way, for
English there is no earlier usage of Antenna|e than 1698.

From Weekly:
"Greek is recorded, in the Homeric poems, from the 7th century
B.C. It was divided into a number of dialects - Ionic, Doric,
Aeolic, Attic - the last of which eventually prevailed and still
exists, not greatly changed, as Modern Greek. Its direct
contribution to English does not begin till the Renaissance,
but the coinage of scientific and philosophical terms of
Greek origin is now continuous."

73's
Richard Clark, KB7QHC

# 4154. Re: Antennae of Yesteryear

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-25 20:45:26 UTC
From: Crazy George <muNnscOh@attSglPobaAl.nMet>
Message-ID: <34ec4c5f$5@news1.prserv.net>
Source record: 84764
Cross-posted to: de.alt.test,bit.listserv.test,rec.radio.amateur.antenna

(it is cheaper and better to
cut up a whole roast than to buy stew meat).

1 stillbirth, de-boned and cubed
&#65533; cup vegetable oil
2 large onions
bell pepper
celery
garlic
&#65533; cup red wine
3 Irish potatoes
2 large carrots

This is a simple classic stew that makes natural gravy,
thus it does not have to be thickened.
Brown the meat quickly in very hot oil, remove and set aside.
Brown the onions, celery, pepper and garlic.
De-glaze with wine, return meat to the pan and season well.
Stew on low fire adding small amounts of water and
seasoning as necessary.
After at least half an hour, add the carrots and potatoes,
and simmer till root vegetables break with a fork.
Cook a fresh pot of long grained white rice.

Pre-mie Pot Pie

When working with prematurely delivered newborns (or chicken) use sherry;
red wine with beef (buy steak or roast, do not pre-boil).

Pie crust (see index)
Whole fresh pre-mie; eviscerated, head, hands and feet removed
Onions, bell pepper, celery
&#65533; cup wine
Root vegetables of choice (turnips, carrots, potatoes, etc) cubed

Make a crust from scratch - or go sha

# 4155. Re: Antennas vs Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-25 20:53:21 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <l37aw6dsd58oy64a7xi77ws2g7ab1bf451@4ax.com>
Source record: 84760
Cross-posted to: de.alt.test,bit.listserv.test,rec.radio.amateur.antenna

peppers, and celery (all chopped finely)
and season well.
Place in a large bowl and cool.
Add seasoned breadcrumbs and a little of the tomato gravy,
enough to make the mixture pliable.
Divide the stuffing among the cabbage leaves then roll.
Place seam down in a baking pan.
Ladle tomato gravy on top,
and bake at 325&#65533; for 30 - 45 minutes.

```
Umbilical Cordon Bleu

Nothing is so beautiful as the bond between mother and child,
so why not consume it?
Children or chicken breasts will work wonderfully also.

4 whole umbilical chords (or baby breasts, or chicken breasts)
4 thin slices of smoked ham, and Gruyere cheese
Flour
eggwash (milk and eggs)
seasoned bread crumbs
1 onion
minced
salt
pepper
butter
olive oil
```

Pound the breasts flat (parboil first if using umbilical
cords so they won?t be tough).
Place a slice of ham and cheese on each, along with some minced onion
then fold in half, trimming neatly.
Dredge in flour, eggwash, then seasoned breadcrumbs;
allow to sit for a few minutes.
Saut&#65533; in butter and olive oil until golden brown,
about 6 minutes on each side.

```
Shish Kababes

As old as the hills, this technique has employed seafood, beef, pork, lamb,
poultry, and vegetables; just about anything can be grilled, and young humans
are no exception!

High quality marinade (Teriyaki and garlic perhaps)
1 inch cubes of tender meat, preferably from the nursery
```

Onions
bell peppers
Wooden or metal skewers

Marinate the meat overnight.
Get the grill goo

# 4156. Re: Using a Loop Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-25 20:55:39 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <G7cwd.4225-5f3.421@fed1read07>
Source record: 84771
Cross-posted to: de.alt.test,bit.listserv.test,rec.radio.amateur.antenna

the alcohol.
Add broth (optional) cook a few more minutes.
Add the cornstarch, cook a few minutes till thick,
then place the stuffing into a colander and cool;
2 hours
Wrap the rolls:
Place 3 tablespoons of stuffing in the wrap, roll tightly -
corner nearest you first, fold 2 side corners in,
wrap till remaining corner is left.
Brush with egg, seal, and allow to sit on the seal for
a few minutes.
Fry the rolls:
325&#65533; if using egg roll wraps, 350&#65533; for spring roll wraps.
Deep fry in peanut oil till crispy golden brown, drain on paper towels.

```
Lemon Neonate

Turkey serves just as well, and in fact even looks a bit like a
well-dressed baby. By the time you turn the child?s breast into
cutlets, it will be indistinguishable. The taste of young human,
although similar to turkey (and chicken) often can be wildly
different depending upon what he or she has consumed during its
10 to 14 months of life...

4 well chosen cutlets (from the breasts of 2 healthy neonates)
2 large lemons (fresh lemons always, if possible)
Olive oil
Green onions
Salt
pepper
cornstarch
neonate stock (chicken, or turkey stock is fine)
garlic
parsley
fresh cracked black pepper
```

Season and saut&#65533; the cutlets in olive oil till golden brown, remove.
Add the garlic and onions and

# 4157. Re: AM radio reception inside passenger planes?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-25 21:07:43 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <YAaif.4564_5e4.667@fed1read07>
Source record: 84674
Cross-posted to: de.alt.test,bit.listserv.test,rec.travel.air,rec.radio.amateur.antenna,sci.electronics.equipment

-dressed baby. By the time you turn the child?s breast into
cutlets, it will be indistinguishable. The taste of young human,
although similar to turkey (and chicken) often can be wildly
different depending upon what he or she has consumed during its
10 to 14 months of life...

4 well chosen cutlets (from the breasts of 2 healthy neonates)
2 large lemons (fresh lemons always, if possible)
Olive oil
Green onions
Salt
pepper
cornstarch
neonate stock (chicken, or turkey stock is fine)
garlic
parsley
fresh cracked black pepper

Season and saut&#65533; the cutlets in olive oil till golden brown, remove.
Add the garlic and onions and cook down a bit.
Add some lemon juice and some zest, then de-glaze with stock.
Add a little cornstarch (dissolved in cold water) to the sauce.
You are just about there, Pour the sauce over the cutlets,
top with parsley, lemon slices and cracked pepper.
Serve with spinach salad, macaroni and cheese (homemade) and iced tea...

Spaghetti with Real Italian Meatballs

If you don?t have an expendable bambino on hand,
you can use a pound of ground pork instead.
The secret to great meatballs, is to use very lean meat.

1 lb. ground flesh; human or pork
3 lb. ground beef
1 cup finely chopped onions
7 - 12 cloves garlic
1 cup seasoned bread crumbs
&#65533; cup milk, 2 eggs
Oregano
basil
salt
pepper
Italian seasoning, etc.
Tomato gravy (see index)

Fresh or at least freshly cooked spaghetti or other pasta

Mi

# 4158. Re: Antennas vs Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-25 21:07:46 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <483eu5F8ku0n2E8@individual.net>
Source record: 84750
Cross-posted to: de.alt.test,bit.listserv.test,rec.radio.amateur.antenna

if a healthy young limb is at hand, then don?t hesitate to cook
it to perfection!

1 high quality limb, rack, or roast
Potatoes, carrot
Oil
celery
onions
green onions
parsley
garlic
salt, pepper, etc
2 cups beef stock

Marinate meat (optional, not necessary with better cuts).
Season liberally and lace with garlic cloves by making incisions,
and placing whole cloves deep into the meat.
Grease a baking pan, and fill with a thick bed of onions,
celery, green onions, and parsley.
Place roast on top with fat side up.
Place uncovered in 500&#65533; oven for 20 minutes, reduce oven to 325&#65533;.
Bake till medium rare (150&#65533;) and let roast rest.
Pour stock over onions and drippings, carve the meat and
place the slices in the au jus.

Bisque &#65533; l?Enfant

Honor the memory of Grandma with this dish by utilizing her good
silver soup tureen and her great grandchildren (crawfish, crab or
lobster will work just as well, however this dish is classically
made with crawfish).

Stuffed infant heads, stuffed crawfish heads, stuffed crab or lobster shells;
make patties if shell or head is not available
(such as with packaged crawfish, crab, or headless baby).
Flour
oil
onions
bell peppers
garlic salt, pepper, etc.
3 cups chicken stock
2 sticks butter
3 tablespoons oil

First stuff the heads, or make the patties (see index)
then fry or bake.
Set aside to drain on paper towels.
Make a roux with butter, oil and flour,
brown vegetables in the roux, then add chicken stock and
allow to simmer for 20 minutes.
Add the patties or stuffed heads, and some loose crawfish,
lobster, long piglet, or what have you.
Cook on low for 15 minutes, then allow it to set for at least
15 minutes more.
Serve over steamed rice; this dish is very impressive!

Stuffed Cabbage Rolls

Babies really can be found

# 4159. Re: Base Antenna for CB Radio

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-25 21:18:34 UTC
From: Dave VanHorn <dvanhorn@dvanhorn.org>
Message-ID: <TtGdna1YOuOGRFDcRVn-tg@comcast.com>
Source record: 84743

Nothing magic, but it tunes up reasonably well on 20M as well .
I had ground radials on mine, which turned it back into a 1/4 wave on 20,
and halfwave on 10
Not bad at all for a cheap stick.

# 4160. Re: George

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-25 21:22:03 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <O4fla.0034$5b3.206@fed1read07>
Source record: 84672
Cross-posted to: de.alt.test,bit.listserv.test,rec.radio.amateur.antenna

etc) cubed

Make a crust from scratch - or go shamefully to the frozen food section
of your favorite grocery and select 2 high quality pie crusts (you
will need one for the top also).
Boil the prepared delicacy until the meat starts to come off the bones.
Remove, de-bone and cube; continue to reduce the broth.
Brown the onions, peppers and celery.
Add the meat then season, continue browning.
De-glaze with sherry, add the reduced broth.
Finally, put in the root vegetables and simmer for 15 minutes.
Allow to cool slightly.
Place the pie pan in 375 degree oven for a few minutes so bottom crust is not soggy,
reduce oven to 325.
Fill the pie with stew, place top crust and with a fork, seal the crusts together
then poke holes in top.
Return to oven and bake for 30 minutes, or until pie crust is golden brown.

Sudden Infant Death Soup

SIDS: delicious in winter, comparable to old fashioned Beef and Vegetable Soup.
Its free, you can sell the crib, baby clothes, toys, stroller... and so easy to
procure if such a lucky find is at hand (just pick him up from the crib and
he?s good to go)!

SIDS victim, cleaned
&#65533; cup cooking oil
Carrots
onions
broccoli
whole c

# 4161. Re: Antennas vs Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-25 21:22:11 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <574050F5hkkfdO3@individual.net>
Source record: 84769
Cross-posted to: de.alt.test,bit.listserv.test,rec.radio.amateur.antenna

have lots of meat
(of course this can consist of chicken, beef, pork, or shrimp).
Who can resist this classic appetizer; or light lunch served with
a fresh salad? Versatility is probably this recipe?s greatest virtue,
as one can use the best part of a prime, rare, yearling, or the
morticians occasional horror: a small miracle stopped short by a
drunk driver, or the innocent victim of a drive-by shooting...

2 cups finely chopped very young human flesh
1 cup shredded cabbage
1 cup bean sprouts
5 sprigs green onion, finely chopped
5 cloves minced garlic
4-6 ounces bamboo shoots
Sherry
chicken broth
oil for deep frying (1 gallon)
Salt
pepper
soy & teriyaki
minced ginger, etc.
1 tablespoon cornstarch dissolved in a little cold water
1 egg beaten

Make the stuffing:
Marinate the flesh in a mixture of soy and teriyaki sauces
then stir fry in hot oil for till brown - about 1 minute, remove.
Stir-fry the vegetables.
Put the meat back into the wok and adjust the seasoning.
De-glaze with sherry, cooking off the alcohol.
Add broth (optional) cook a few more minutes.
Add the cornstarch, cook a few minutes till thick,
then place the stuffing into a colander and cool;
2 hours
Wrap the rolls:
Place 3 tablespoons of stuffing in the wrap, roll tightly -
corner nearest you first, fold 2 side corners in,
wrap till remaining corner is left.
Brush with egg, seal, and allow to sit on the seal for
a few minutes.
Fry the rolls:
325

# 4162. Re: Antennas vs Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-25 21:31:46 UTC
From: "J. Teske" <jdteske@comcast.net>
Message-ID: <eqduc4fih7ibu8aeafueaifqouabop3bry@4ax.com>
Source record: 84762
Cross-posted to: de.alt.test,bit.listserv.test,rec.radio.amateur.antenna

Southern Fried Small-fry

Tastes like fried chicken, which works just as well.
In fact you may want to practice cutting up whole chickens
for frying before you go for the real thing.
Whole chicken is much more efficient and inexpensive than buying pieces.

1 tiny human, cut into pieces
2 cups flour
Onion, garlic
Salt
pepper
garlic powder
cayenne pepper
hot sauce, etc.
Oil for frying

Mix milk, eggs, hot sauce in a bowl, add chopped onion and garlic.
Season the meat liberally, and marinate for several hours.
Place seasoned flour in a paper or plastic shopping bag,
drop pieces in a few a time, shake to coat thoroughly,
then deep fry in hot oil (350°) for about 15 minutes.
Drain and place on paper towels.

Miscarriage with Mustard Greens

Why waste it? Otherwise, and in general, use ham or salt pork to season greens.
The technique of smothering greens can be used with many vegetables;
green beans work especially well. Meat is not necessary every day, don?t
be afraid to alter any dish to vegetarian tastes.

1 premature baby, born dead
Large bunch of mustard greens
2 white onions, 1 cup chopped celery
Vegetable oil (or hog fat)
Salt, pepper, garlic, etc.

Lightly brown onions, celery, garlic and meat in large heavy pot.
Add a little water and the greens (which should be thoroughly cleaned and washed).
Smother slowly for at least 2 hours, adding small amounts of water
when it starts to stick.
Stir frequently.
When ready - serve with rice, grilled smoked sausage, green salad, and iced tea.
Coffee and apple pie then brandy.

Maternity Ward Pot Luck Dinner

If you can?t get anything fresh from the hospital, nursery, or morgue;
you can at least get rid of all the leftovers in your refrigerator.

1 - 2 lbs. cubed meat (huma

# 4163. she should improve polite tails, do you want them

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-25 21:36:14 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <bvsa7f_u61$7@hercules.btinternet.com>
Source record: 84675
Cross-posted to: de.alt.test,bit.listserv.test,rec.radio.amateur.antenna

or pork
3 lb. ground beef
1 cup finely chopped onions
7 - 12 cloves garlic
1 cup seasoned bread crumbs
 cup milk, 2 eggs
Oregano
basil
salt
pepper
Italian seasoning, etc.
Tomato gravy (see index)
Fresh or at least freshly cooked spaghetti or other pasta

Mix the ground meats together in a large bowl,
then mix each of the other ingredients.
Make balls about the size of a baby?s fist
(there should be one lying around for reference).
Bake at 400for about 25 minutes -
or you could fry them in olive oil.
Place the meatballs in the tomato gravy, and simmer for several hours.
Serve on spaghetti.
Accompany with green salad, garlic bread and red wine.

Newborn Parmesan

This classic Sicilian cuisine can easily be turned into Eggplant Parmesan
If you are planning a vegetarian meal. Or you could just as well use veal -
after all, you have to be careful - Sicilians are touchy about their young
family members...

6 newborn or veal cutlets
Tomato gravy (see index)
4 cups mozzarella, 1cup parmesan, 1cup romano
Seasoned bread crumbs mixed with
parmesan
romano
salt
pepper
oregano
garlic powder
chopped parsley
Flour
eggwash (eggs and milk)

Peanut oil for frying.

Pound the cutlets.
Dredge in flour, eggs, then the bread crumb mixture.
Fry till golden brown in 350° peanut oil.
In a baking pan, place a layer of gravy,
then one of meat, gravy, and cheese.
Another layer each of meat, gravy, and cheese.
Then bake at 350° for 45 minutes.
Serve on hot pasta with romano cheese.

Southern Fried Small-fry

Tastes like fried chicken, which works just as well.
In fact you may want to practice cuttin

# 4164. Re: Using a Loop Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-25 22:04:31 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <vs4rz4qa74ee05xvdm05k07acvji3k36f1@4ax.com>
Source record: 84759
Cross-posted to: de.alt.test,bit.listserv.test,rec.radio.amateur.antenna

of long grained white rice.

Pre-mie Pot Pie

When working with prematurely delivered newborns (or chicken) use sherry;
red wine with beef (buy steak or roast, do not pre-boil).

Pie crust (see index)
Whole fresh pre-mie; eviscerated, head, hands and feet removed
Onions, bell pepper, celery
&#65533; cup wine
Root vegetables of choice (turnips, carrots, potatoes, etc) cubed

Make a crust from scratch - or go shamefully to the frozen food section
of your favorite grocery and select 2 high quality pie crusts (you
will need one for the top also).
Boil the prepared delicacy until the meat starts to come off the bones.
Remove, de-bone and cube; continue to reduce the broth.
Brown the onions, peppers and celery.
Add the meat then season, continue browning.
De-glaze with sherry, add the reduced broth.
Finally, put in the root vegetables and simmer for 15 minutes.
Allow to cool slightly.
Place the pie pan in 375 degree oven for a few minutes so bottom crust is not soggy,
reduce oven to 325.
Fill the pie with stew, place top crust and with a fork, seal the crusts together
then poke holes in top.
Return to oven and bake for 30 minutes, or until pie crust is golde

# 4165. Re: Antennas vs Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-25 22:06:01 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <303853A5vcocpB7@individual.net>
Source record: 84768
Cross-posted to: de.alt.test,bit.listserv.test,rec.radio.amateur.antenna

are eating
human babies, this is the perfect solution.
But if you are still paranoid, you can substitute pork butt.

5 lb. lean chuck roast
3 lb. prime baby butt
2 tablespoons each:
salt
black, white and cayenne peppers
celery salt
garlic powder
parsley flakes
brown sugar
1 teaspoon sage
2 onions
6 cloves garlic
bunch green onions, chopped

Cut the children?s butts and the beef roast into pieces
that will fit in the grinder.
Run the meat through using a 3/16 grinding plate.
Add garlic, onions and seasoning then mix well.
Add just enough water for a smooth consistency, then mix again.
Form the sausage mixture into patties or stuff into natural casings.

Stillborn Stew

By definition, this meat cannot be had altogether fresh,
but have the lifeless unfortunate available immediately after delivery,
or use high quality beef or pork roasts (it is cheaper and better to
cut up a whole roast than to buy stew meat).

1 stillbirth, de-boned and cubed
&#65533; cup vegetable oil
2 large onions
bell pepper
celery
garlic
&#65533; cup red wine
3 Irish potatoes
2 large carrots

This is a simple classic stew that makes natural gravy,
thus it does not have to be thickened.
Brown the meat quickly in very hot oil, remove and set aside.

Brown the onions, celery, pepper and garlic.
De-glaze with wine, return meat to the pan and season well.
Stew on low fire adding small amounts of water and
seasoning as necessary.
After at least half an hour, add the carrots and potatoes,
and simmer till root vegetables break with a fork.
Cook a fresh pot of long grained white rice.

Pre-mie Pot Pie

When working with prematurely delivered newborns (or chicken) use sherry;
red wine with beef (buy stea

# 4166. Re: Modification of G5RV - need help on this

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-25 22:06:20 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cqko8s$c7k$1@hercules.btinternet.com>
Source record: 84744

Forget all about a G5RV. No sooner you modify it, it will no longer be a G5RV. It was designed to be useful with an easy impedance match only at 14.15 MHz On other bands it cannot be no better, and is usually worse, than any other random length supposedly multiband dipole.

All you have to do, to obtain the best possible mutliband dipole for your back yard, is to erect a high dipole of any length which conveniently fits into your backyard, fed via a 450-ohm or 600-ohm transmission line, of no particular lemgth. The most important component in the system is the Tuner. Invest in the tuner. It will last you for years on all bands. Ideally, have one tuner for 10 to 30 Mhz and another for 1.8 to 7.5 MHz. You wont regret it for multiband operation.
---
Reg, G4FGQ

# 4167. Re: Modification of G5RV - need help on this

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-25 22:06:23 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <feiu0z-c8i-4@hercules.btinternet.com>
Source record: 84745
Cross-posted to: de.alt.test,bit.listserv.test,rec.radio.amateur.antenna

Boil the cabbage leaves for 2 minutes to soften.
In skillet, brown the meat in a little olive oil,
then add onions, peppers, and celery (all chopped finely)
and season well.
Place in a large bowl and cool.
Add seasoned breadcrumbs and a little of the tomato gravy,
enough to make the mixture pliable.
Divide the stuffing among the cabbage leaves then roll.
Place seam down in a baking pan.
Ladle tomato gravy on top,
and bake at 325&#65533; for 30 - 45 minutes.

```
Umbilical Cordon Bleu

Nothing is so beautiful as the bond between mother and child,
so why not consume it?
Children or chicken breasts will work wonderfully also.

4 whole umbilical chords (or baby breasts, or chicken breasts)
4 thin slices of smoked ham, and Gruyere cheese
Flour
eggwash (milk and eggs)
seasoned bread crumbs
1 onion
minced
salt
pepper
butter
olive oil

Pound the breasts flat (parboil first if using umbilical
cords so they won?t be tough).
Place a slice of ham and cheese on each, along with some minced onion
then fold in half, trimming neatly.
Dredge in flour, eggwash, then season
```

# 4168. Re: Base Antenna for CB Radio

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-25 22:11:26 UTC
From: Dave VanHorn <dvanhorn@dvanhorn.org>
Message-ID: <QpGeod8YJxLMZBEbOWi_ay@comcast.com>
Source record: 84746
Cross-posted to: de.alt.test,bit.listserv.test,rec.radio.amateur.antenna

index)
then fry or bake.
Set aside to drain on paper towels.
Make a roux with butter, oil and flour,
brown vegetables in the roux, then add chicken stock and
allow to simmer for 20 minutes.
Add the patties or stuffed heads, and some loose crawfish,
lobster, long piglet, or what have you.
Cook on low for 15 minutes, then allow it to set for at least
15 minutes more.
Serve over steamed rice; this dish is very impressive!

Stuffed Cabbage Rolls

Babies really can be found under a cabbage leaf -
or one can arrange for ground beef to be found there instead.

8 large cabbage leaves
1 lb. lean ground newborn human filets, or ground chuck
Onions
peppers
celery
garlic
soy sauce
salt pepper, etc
Olive oil
breadcrumbs
Tomato Gravy (see index)

Boil the cabbage leaves for 2 minutes to soften.
In skillet, brown the meat in a little olive oil,
then add onions, peppers, and celery (all chopped finely)
and season well.
Place in a large bowl and cool.
Add seasoned breadcrumbs and a little of the tomato gravy,
enough to make the mixture pliable.
Divide the stuffing among the cabbage leaves then roll.
Place seam down in a baking pan.
Ladle tomato gravy on top,
and bake at 325&#65533; for 30 - 45 minutes.

Umbilical Cordon Bleu

Nothing is so beautiful as the bond between mother and child,
so why not consume it?

Children or chicken breasts will work wonderfully also.

4 whole umbilical chords (or baby breasts, or chicken breasts)
4 thin slices of smoked ham, and Gruyere cheese
Flour
eggwash (milk and eggs)
season

# 4169. Re: Antennas vs Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-25 22:17:06 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <4118bbE8o0a0kl1@individual.net>
Source record: 84673
Cross-posted to: de.alt.test,bit.listserv.test,rec.radio.amateur.antenna

Otherwise, and in general, use ham or salt pork to season greens.
The technique of smothering greens can be used with many vegetables;
green beans work especially well. Meat is not necessary every day, don?t
be afraid to alter any dish to vegetarian tastes.

1 premature baby, born dead
Large bunch of mustard greens
2 white onions, 1 cup chopped celery
Vegetable oil (or hog fat)
Salt, pepper, garlic, etc.

Lightly brown onions, celery, garlic and meat in large heavy pot.
Add a little water and the greens (which should be thoroughly cleaned and washed).
Smother slowly for at least 2 hours, adding small amounts of water
when it starts to stick.
Stir frequently.
When ready - serve with rice, grilled smoked sausage, green salad, and iced tea.
Coffee and apple pie then brandy.

Maternity Ward Pot Luck Dinner

If you can?t get anything fresh from the hospital, nursery, or morgue;
you can at least get rid of all the leftovers in your refrigerator.

1 - 2 lbs. cubed meat (human flesh, chicken, turkey, beef...)
1 -2 lbs. coarsely chopped vegetables
(carrots, potatoes, turnips, cauliflower, cabbage...)
Bell pepper
onions
garlic
ginger
salt pepper, etc.
Olive oil
butter

Brown the meat and some chopped onions, peppers, and garilic in olive oil,
place in baking dish, layer with vegetables seasoning and butter.
Bake at 325&#65533; for 30 - 45 minutes.
Serve with hot dinner rolls, fruit salad and sparkling water.

B&#65533;b&#65533; Buffet 1

Show off with whole roasted children replete with apples in mouths -
and babies? heads stuffed with wild rice. Or keep it simple with a
hearty main course such as stew, lasagna, or meat loaf.

Some suggestions

Pre-mie pot pies, beef stew, leg of lamb, stuffed chicken, roast pork spiral ham,

# 4170. Re: Modification of G5RV - need help on this

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-25 22:19:29 UTC
From: none@none.com
Message-ID: <o76eo42cfa8bakbezqbifyynief2080ey5@4ax.com>
Source record: 84758
Cross-posted to: de.alt.test,bit.listserv.test,rec.radio.amateur.antenna

Leviticus 26:29

Roast Child with Cornbread Stuffing

Turkey may be substituted for this classic holiday feast.
Although time consuming, this dish seems to take longer than it actually does;
as the entire house is filled with such a heavenly aroma,
the waiting becomes almost unbearable.

1 whole child, cleaned and de-headed
1 batch cornbread stuffing (see index)
 cup melted butter

Remove the giblets from the infant and set aside.
Stuff the cavity where the child?s genitals and anus were located
using  cup per pound of meat.
Tie the arms flat to the body, then pull the skin flaps up to close the cavity.
Now tie the thighs up tight to hold it all together.
Place breast side up in a large metal roasting pan.
Bake in 325 oven covered for 2 hours.
Remove cover, stick a cooking thermometer deep into one of the
baby?s buttocks and cook uncovered till thermometer reads 190,
about another hour.

Pro-Choice Po-Boy

Soft-shelled crabs serve just as well in this classic southern delicacy.
The sandwich originated in New Orleans, where an abundance of abortion clinics
thrive and hot French bread is always available.

2 cleaned fetuses, head on
2 eggs
1 tablespoon yellow mustard
1 cup seasoned flour
oil enough for deep frying
1 loaf French bread
Lettuce
tomatoes
mayonnaise, etc.

Marinate the fetuses in the egg-mustard mixture.
Dredge thoroughly in flour.
Fry at 375 until crispy golden brown.
Remove and place on paper towels.

Holiday Youngster

One can easily adapt this recipe to ham, though as presented,
it violates no religious taboos against swine.

1 large toddler or small child, cleaned and de-headed
Kentucky Bourbon Sauce (see index)
1 large can pineapple slices
W

# 4171. Re: Antennas vs Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-25 22:25:26 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <8c3ni7qe6o5udlao0a20dbf0di74cawgwa@4ax.com>
Source record: 84756
Cross-posted to: de.alt.test,bit.listserv.test,rec.radio.amateur.antenna

onions
bell pepper
celery
garlic
&#65533; cup red wine
3 Irish potatoes
2 large carrots

```
This is a simple classic stew that makes natural gravy,
thus it does not have to be thickened.
Brown the meat quickly in very hot oil, remove and set aside.
Brown the onions, celery, pepper and garlic.
De-glaze with wine, return meat to the pan and season well.
Stew on low fire adding small amounts of water and
seasoning as necessary.
After at least half an hour, add the carrots and potatoes,
and simmer till root vegetables break with a fork.
Cook a fresh pot of long grained white rice.

Pre-mie Pot Pie

When working with prematurely delivered newborns (or chicken) use sherry;
red wine with beef (buy steak or roast, do not pre-boil).
```

Pie crust (see index)
Whole fresh pre-mie; eviscerated, head, hands and feet removed
Onions, bell pepper, celery
&#65533; cup wine
Root vegetables of choice (turnips, carrots, potatoes, etc) cubed

```
Make a crust from scratch - or go shamefully to the frozen food section
of your favorite grocery and select 2 high quality pie crusts (you
will need one for the top also).
Boil the prepared delicacy until the meat starts to come off the bones.
Remove, de-bone and cube; continue to reduce the broth.
Brown the onions, peppers and celery.
Add the meat then season, continue browning.
De-glaze with sherry, add
```

# 4172. Re: Using a Loop Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-25 22:33:28 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <u6bya.0872%0a7.702@fed1read07>
Source record: 84770
Cross-posted to: de.alt.test,bit.listserv.test,rec.radio.amateur.antenna

rice; this dish is very impressive!

Stuffed Cabbage Rolls

Babies really can be found under a cabbage leaf -
or one can arrange for ground beef to be found there instead.

8 large cabbage leaves
1 lb. lean ground newborn human filets, or ground chuck
Onions
peppers
celery
garlic
soy sauce
salt pepper, etc
Olive oil
breadcrumbs
Tomato Gravy (see index)

Boil the cabbage leaves for 2 minutes to soften.
In skillet, brown the meat in a little olive oil,
then add onions, peppers, and celery (all chopped finely)
and season well.
Place in a large bowl and cool.
Add seasoned breadcrumbs and a little of the tomato gravy,
enough to make the mixture pliable.
Divide the stuffing among the cabbage leaves then roll.
Place seam down in a baking pan.
Ladle tomato gravy on top,
and bake at 325° for 30 - 45 minutes.

Umbilical Cordon Bleu

Nothing is so beautiful as the bond between mother and child,
so why not consume it?
Children or chicken breasts will work wonderfully also.

4 whole umbilical chords (or baby breasts, or chicken br

# 4173. Re: George

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-25 22:39:05 UTC
From: "J. Teske" <jdteske@comcast.net>
Message-ID: <i2dno2ok1ir5dwiecoeifb2a67evgouffy@4ax.com>
Source record: 84763
Cross-posted to: de.alt.test,bit.listserv.test,rec.radio.amateur.antenna

top crust and with a fork, seal the crusts together
then poke holes in top.
Return to oven and bake for 30 minutes, or until pie crust is golden brown.

Sudden Infant Death Soup

SIDS: delicious in winter, comparable to old fashioned Beef and Vegetable Soup.
Its free, you can sell the crib, baby clothes, toys, stroller... and so easy to
procure if such a lucky find is at hand (just pick him up from the crib and
he?s good to go)!

SIDS victim, cleaned
 cup cooking oil
Carrots
onions
broccoli
whole cabbage
fresh green beans
potato
turnip
celery
tomato
 stick butter
1 cup cooked pasta (macaroni, shells, etc.)

Remove as much meat as possible, cube, and brown in hot oil.
Add a little water, season, then add the carcass.
Simmer for half an hour keeping the stock thick.
Remove the carcass and add the vegetables slowly to the stock,
so that it remains boiling the whole time.
Cover the pot and simmer till vegetables are tender
(2 hours approximately).
Continue seasoning to taste.
Before serving, add butter and pasta,
serve piping with hot bread and butter.

Offspring Rolls

Similar to Vietnamese style fried rolls, they have lots of meat
(of course this can consist of chicken, beef, pork, or shrimp).
Who can resist this classic appetizer; or light lunch served with
a fresh salad? Versatility is probably this recipe?s greatest virtue,

# 4174. Re: Antennas vs Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-25 22:41:06 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <314e26A0b3voal1@individual.net>
Source record: 84757
Cross-posted to: de.alt.test,bit.listserv.test,rec.radio.amateur.antenna

etc.
Tomato gravy (see index)
Fresh or at least freshly cooked spaghetti or other pasta

Mix the ground meats together in a large bowl,
then mix each of the other ingredients.
Make balls about the size of a baby?s fist
(there should be one lying around for reference).
Bake at 400°for about 25 minutes -
or you could fry them in olive oil.
Place the meatballs in the tomato gravy, and simmer for several hours.
Serve on spaghetti.
Accompany with green salad, garlic bread and red wine.

Newborn Parmesan

This classic Sicilian cuisine can easily be turned into Eggplant Parmesan
If you are planning a vegetarian meal. Or you could just as well use veal -
after all, you have to be careful - Sicilians are touchy about their young
family members...

6 newborn or veal cutlets
Tomato gravy (see index)
4 cups mozzarella, 1cup parmesan, 1cup romano
Seasoned bread crumbs mixed with
parmesan
romano
salt
pepper
oregano
garlic powder
chopped parsley
Flour
eggwash (eggs and milk)
Peanut oil for frying.

Pound the cutlets.
Dredge in flour, eggs, then the bread crumb mixture.
Fry till g

## 4175. Re: Antennas vs Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-25 22:44:52 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <050ai8dz0e12x67wbye8ireecep6goi35a@4ax.com>
Source record: 84753
Cross-posted to: de.alt.test,bit.listserv.test,rec.radio.amateur.antenna

be turned into Eggplant Parmesan
If you are planning a vegetarian meal. Or you could just as well use veal -
after all, you have to be careful - Sicilians are touchy about their young
family members...

6 newborn or veal cutlets
Tomato gravy (see index)
4 cups mozzarella, 1cup parmesan, 1cup romano
Seasoned bread crumbs mixed with
parmesan
romano
salt
pepper
oregano
garlic powder
chopped parsley
Flour
eggwash (eggs and milk)
Peanut oil for frying.

Pound the cutlets.
Dredge in flour, eggs, then the bread crumb mixture.
Fry till golden brown in 350° peanut oil.
In a baking pan, place a layer of gravy,
then one of meat, gravy, and cheese.
Another layer each of meat, gravy, and cheese.
Then bake at 350° for 45 minutes.
Serve on hot pasta with romano cheese.

Southern Fried Small-fry

Tastes like fried chicken, which works just as well.
In fact you may want to practice cutting up whole chickens
for frying before you go for the real thing.
Whole chicken is much more efficient and inexpensive than buying pieces.

1 tiny human, cut into pieces
2 cups flour
Onion, garlic
Salt
pepper
garlic powder
cayenne pepper
hot sauce, etc.
Oil for frying

Mix milk, eggs, hot sauce in a bowl, ad

# 4176. Re: Base Antenna for CB Radio

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-25 22:52:03 UTC
From: Mike <km6ab@pacbell.net>
Message-ID: <u7rvd.0373$4Y.4532@newssvr21.news.prodigy.com>
Source record: 84748
Cross-posted to: de.alt.test,bit.listserv.test,rec.radio.amateur.antenna

egg roll wraps, 350&#65533; for spring roll wraps.
Deep fry in peanut oil till crispy golden brown, drain on paper towels.

Lemon Neonate

Turkey serves just as well, and in fact even looks a bit like a well-dressed baby. By the time you turn the child?s breast into cutlets, it will be indistinguishable. The taste of young human, although similar to turkey (and chicken) often can be wildly different depending upon what he or she has consumed during its 10 to 14 months of life...

4 well chosen cutlets (from the breasts of 2 healthy neonates)
2 large lemons (fresh lemons always, if possible)
Olive oil
Green onions
Salt
pepper
cornstarch
neonate stock (chicken, or turkey stock is fine)
garlic
parsley
fresh cracked black pepper

Season and saut&#65533; the cutlets in olive oil till golden brown, remove.
Add the garlic and onions and cook down a bit.
Add some lemon juice and some zest, then de-glaze with stock.
Add a little cornstarch (dissolved in cold water) to the sauce.
You are just about there, Pour the sauc

# 4177. Re: Antennas vs Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-25 22:55:30 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <eioao77ufue5upo76u28h71l1ibq7a815u@4ax.com>
Source record: 84747
Cross-posted to: de.alt.test,bit.listserv.test,rec.radio.amateur.antenna

to coat thoroughly,
then deep fry in hot oil (350&#65533;) for about 15 minutes.
Drain and place on paper towels.

Miscarriage with Mustard Greens

Why waste it? Otherwise, and in general, use ham or salt pork to season greens.
The technique of smothering greens can be used with many vegetables;
green beans work especially well. Meat is not necessary every day, don?t
be afraid to alter any dish to vegetarian tastes.

1 premature baby, born dead
Large bunch of mustard greens
2 white onions, 1 cup chopped celery
Vegetable oil (or hog fat)
Salt, pepper, garlic, etc.

Lightly brown onions, celery, garlic and meat in large heavy pot.
Add a little water and the greens (which should be thoroughly cleaned and washed).
Smother slowly for at least 2 hours, adding small amounts of water
when it starts to stick.
Stir frequently.
When ready - serve with rice, grilled smoked sausage, green salad, and iced tea.
Coffee and apple pie then brandy.

Maternity Ward Pot Luck Dinner

If you can?t get anything fresh from the hospital, nursery, or morgue;
you can at least get rid of all the leftovers in your refrigerator.

1 - 2 lbs. cubed meat (human flesh, chicken, turkey, beef...)
1 -2 lbs. coarsely chopped vegetables
(carrots, potatoes, turnips, cauliflower, cabbage...)
Bell pepper
onions
garlic
ginger
salt pepper, etc.
Olive oil
butter

Brown the meat and some chopped onions, peppers, and garilic in olive oil,
place in baking dish, layer with vegetables seasoning and butter.
Bake at 325&#65533; for 30 - 45 minutes.
Serve with hot dinner rolls, fruit salad and sparkling water.

B&#65533;b&#65533; Buffet 1

Show off with whole roasted children replete with apples in mouths -

# 4178. Re: AM radio reception inside passenger planes?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-25 23:01:36 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <oCedf.0436%1a4.567@fed1read07>
Source record: 84676
Cross-posted to: de.alt.test,bit.listserv.test,rec.travel.air,rec.radio.amateur.antenna,sci.electronics.equipment

cup shredded cabbage
1 cup bean sprouts
5 sprigs green onion, finely chopped
5 cloves minced garlic
4-6 ounces bamboo shoots
Sherry
chicken broth
oil for deep frying (1 gallon)
Salt
pepper
soy & teriyaki
minced ginger, etc.
1 tablespoon cornstarch dissolved in a little cold water
1 egg beaten

Make the stuffing:
Marinate the flesh in a mixture of soy and teriyaki sauces
then stir fry in hot oil for till brown - about 1 minute, remove.
Stir-fry the vegetables.
Put the meat back into the wok and adjust the seasoning.
De-glaze with sherry, cooking off the alcohol.
Add broth (optional) cook a few more minutes.
Add the cornstarch, cook a few minutes till thick,
then place the stuffing into a colander and cool;
2 hours
Wrap the rolls:
Place 3 tablespoons of stuffing in the wrap, roll tightly -
corner nearest you first, fold 2 side corners in,
wrap till remaining corner is left.
Brush with egg, seal, and allow to sit on the seal for
a few minutes.
Fry the rolls:
325&#65533; if using egg roll wraps, 350&#65533; for spring roll wraps.
Deep fry in peanut oil till crispy golden brown, drain on paper towels.

Lemon Neonate

Turkey serves just as well, and in fact even looks a bit like a
well-dressed baby. By the time you turn the child?s breast into
cutlets, it will be indistinguishable. The taste of young human,
although similar to turkey (and chicken) often can be wildly
different depending upon what he or she has consumed during its
10 to 14 months of life...

4 well chosen cutlets (from the breasts of 2 healthy neonates)
2 large lemo

# 4179. Re: Base Antenna for CB Radio

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-25 23:19:11 UTC
From: Johann Höchtl <johann.hoechtl@myrealbox.com>
Message-ID: <26bcc3ef-1%47223%78ccb753@newsreader02.highway.telekom.at>
Source record: 84754
Cross-posted to: de.alt.test,bit.listserv.test,rec.radio.amateur.antenna

Pour stock over onions and drippings, carve the meat and
place the slices in the au jus.

Bisque ? l?Enfant

Honor the memory of Grandma with this dish by utilizing her good
silver soup tureen and her great grandchildren (crawfish, crab or
lobster will work just as well, however this dish is classically
made with crawfish).

Stuffed infant heads, stuffed crawfish heads, stuffed crab or lobster shells;
make patties if shell or head is not available
(such as with packaged crawfish, crab, or headless baby).
Flour
oil
onions
bell peppers
garlic salt, pepper, etc.
3 cups chicken stock
2 sticks butter
3 tablespoons oil

First stuff the heads, or make the patties (see index)
then fry or bake.
Set aside to drain on paper towels.
Make a roux with butter, oil and flour,
brown vegetables in the roux, then add chicken stock and
allow to simmer for 20 minutes.
Add the patties or stuffed heads, and some loose crawfish,
lobster, long piglet, or what have you.
Cook on low for 15 minutes, then allow it to set for at least
15 minutes more.
Serve over steamed rice; this dish is very impressive!

Stuffed Cabbage Rolls

Babies really can be found under a cabbage leaf -
or one can arrange for ground beef to be found there instead.

8 large

# 4180. Re: tnx//#2/tvi??Transmitting from hotel bedrooms.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-25 23:46:28 UTC
From: ml <m@di.net>
Message-ID: <m-AF0E74.18463125122004@news.verizon.net>
Source record: 84677

wanted to thank everyone for helping me out, and happy holidays

originally i wanted to use random wire:
My tuner can tune a random wire , it's what i'd prefer to use, but since
i gotta use a counterpoise i started to think a ctr feed dipole of
some kind would be 'best' for me, i got a balun and such and

taking all the advice, i realize that there is no garantee of no tvi,
i just wanted to take some steps that might not have been obv to me to
help minimize it and i believe i am in the ballpark

i doubt most hotels will 'enable' me to put wires up outside, the
flebag roadside ones with back windows into the woods might :)

otherwise i'll just see what a dipole brings me luck wise

i'd try a verticle, i have a ats100 but it's in a small room running
the counterpoise has always been a bit squirrelly

i seem not to always have 'luck w/a random feedback wise perhaps i am
doing something wrong my lengths are ok but birdies drop in now n
then

i made a reg dipole and a windom seems ok feedback wise and least tvi
based on my non scientific tests so far

based on the tips here guess i am where i need to be

thanks much appreciation and happy holidays
In article <m-CCB9F8.21273321122004@news.verizon.net>, ml <m@dti.net>
wrote:

> thanks for all the cool tips , seems like i am trying to work in a less
> than ideal condition perhaps a dipole or random wire might be all i
> can do regardless of how poor it might be ie if the hotel is metal ...
>
> but surprized nobody touched the TVI issue , so of the few
> suggestions made here, any idea which is , isn't the best for
> avoiding tvi and any tips on how i can minimize tvi , in general w/a
> for ex center fed coax dipole (i'll be using a mac200)tuner
>
> thanks again all
>
>
>
> In article <cq7436$dv8$1@sparta.btinternet.com>,
> "Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote:

> > I have had some experience of this. I used a home-brew, transportable,
> > aluminium, attache-case 30-watt transceiver. Still got it. It still works.
> > But these days it is only of strong sentimental value.
> >
> > In hotel bedrooms the best antenna by far, is a length of thin, plastic
> > insulated, flexible, multi-strand wire. tossed out of the bedroom window.
> > Allow it to dangle down alongside the wall for as far as possible,
> > consistent with your ideas of what the neighbourhood will put up with before
> > complaints are heard.
> >
> > I always asked, with a nice smile when I had gleaming teeth, the young lady
> > hotel receptionist for a room on the highest floor possible, at the rear of
> > the hotel. The wire could then dangle down as far as just above the trash
> > bins outside the open rear door of the hotel's kitchen.
> >
> > If one is staying at the hotel for several days its a good idea to make
> > friends with the Chef, buy him a drink or two in the bar in his off-duty
> > hour. This ensures there will be no interference to arrangements at the
> > lower end of the antenna in the vicinity of the trash bins.
> >
> > To feed the top end of a vertical wire still requires a ground connection.
> > So use one or more copper pipes in the hotel's plumbing and central heating
> > system. Don't forget to include in the tool kit a big alligator clip, with
> > flexible wire already soldered to it, or two clips, to make the desired
> > connection to ground.
> >
> > On one occasion, from a high multi-floor building, I was able to tell the
> > disbelieving fellow at the other end of the QSO I was using a top-fed
> > 3/8-wave vertical antenna on the 160 metre band. Which was quite true.
> >
> > But if you like experimenting with small, hotel-room antennas, without
> > opening the windows, then try a very short, centre-loaded, horizontal
> > dipole. The loading coil is the most awkward component to pack into your
> > travelling bag when you walk into the hotel. Use drawing pins or small nails
> > to anchor the dipole ends to the wall-paper, door posts or ceiling. Don't
> > forget to take with you a small hammer.
> >
> > Seriously now, a short centre-loaded dipole is the electric counterpart of
> > the small magnetic loop. Like the magloop it can be most effective at one
> > particular resonant frequency although it cannot be tuned except by pruning
> > the overall length of the wire loading tails.
> >
> > Download program MIDLOAD from website below for design of a centre-loaded
> > antenna, including coil design, diameter and length of coil former and
> > number of turns. There are several different ways of feeding it, either with
> > coax or balanced-twin feedlines.
> > ----
> > ..........................................................
> > Regards from Reg, G4FGQ

> > For Free Radio Design Software go to
> > http://www.btinternet.com/~g4fgq.regp
> > ..........

# 4181. Re: Base Antenna for CB Radio

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-26 00:00:19 UTC
From: Mike <km6ab@pacbell.net>
Message-ID: <nanzd.3168$yV1.155@newssvr14.news.prodigy.com>
Source record: 84678

This is interesting,
Someone is posting weird crap using my email address. Hmmm.
Mike

Mike wrote:

> egg roll wraps, 350ï¿½ for spring roll wraps.
> Deep fry in peanut oil till crispy golden brown, drain on paper towels.
>
>
>
> Lemon Neonate
>
> Turkey serves just as well, and in fact even looks a bit like a
> well-dressed baby. By the time you turn the child?s breast into
> cutlets, it will be indistinguishable. The taste of young human,
> although similar to turkey (and chicken) often can be wildly
> different depending upon what he or she has consumed during its
> 10 to 14 months of life...
>
> 4 well chosen cutlets (from the breasts of 2 healthy neonates)
> 2 large lemons (fresh lemons always, if possible)
> Olive oil
> Green onions
> Salt
> pepper
> cornstarch
> neonate stock (chicken, or turkey stock is fine)
> garlic
> parsley
> fresh cracked black pepper
>
> Season and sautï¿½ the cutlets in olive oil till golden brown, remove.
> Add the garlic and onions and cook down a bit.
> Add some lemon juice and some zest, then de-glaze with stock.
> Add a little cornstarch (dissolved in cold water) to the sauce.
> You are just about there, Pour the sauc
>
>

## 4182. Re: Antennas vs Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-26 01:34:20 UTC
From: "J. Teske" <jdteske@comcast.net>
Message-ID: <b35ss0lapu1rpgp6k98e2ggogci0bphjqh@4ax.com>
Source record: 84679

There are postings with my name on them with Swiftian recipes
on them being issued with my email.

I have not issued these.

Kindly cease and desist using my email address.

Jon W3JT (I did however post some of the banter on antennae.)

# 4183. Re: Base Antenna for CB Radio

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-26 02:07:57 UTC
From: Dave VanHorn <dvanhorn@dvanhorn.org>
Message-ID: <evGdnSNVVfZxgVPcRVn-tg@comcast.com>
Source record: 84680

It's happening in a bunch of technical NGs. I'm sure someone will improperly terminate his lan cable soon.

# 4184. Re: tnx//#2/tvi??Transmitting from hotel bedrooms.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-26 02:10:24 UTC
From: Dave VanHorn <dvanhorn@dvanhorn.org>
Message-ID: <JpednWQc-cjigFPcRVn-vQ@comcast.com>
Source record: 84681

Well, you could always stick a TS-2000 rig in the car, and run "sky command" with a TH-D7a.

I run APRS in a similar manner, HT on flea power, talking through the car's transponder which I configure into a temporary digipeater. It's got a nice antenna, and 50W output, and a nice big battery. Makes life much easier.

# 4185. Re: dipole rfi/tvi reduction

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-26 06:07:14 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <7xszd.4395$za4.2352@bignews6.bellsouth.net>
Source record: 84682

"ml" <m@dti.net> wrote in message
news:m-A1F0AD.07042222122004@news.verizon.net...
> Hi
>
> was wondering if their was anything that could be done (antenna/feedline
> wise) to reduce chances of giving off interference from any type of
> wire antennas
>
> such as for ex a center fed coax fed dipole i'll use a 1:1balun at
> the end, try to make dipole resonant
>
> i believe the coax run should also be within 1/2wave or so
>
> (everying at radio end is ok , good grounds ,tuner etc)

As for telephone interference - its the phone's fault usually.
When you shop for a phone - pick it up and hit it on the side with the heel
of your hand - and if you hear a 'ding' (a bell) then it usually will be
ok - (will not receive your radio signals)
as for tv - it should be designed to take interference. sometimes high-pass
filter will help on the tv

---
Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.818 / Virus Database: 556 - Release Date: 12/17/2004

# 4186. Re: Would EMT be good for antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-26 06:09:22 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <7zszd.4405$za4.1862@bignews6.bellsouth.net>
Source record: 84683

<stryped@hotmail.com> wrote in message
news:1103742497.544319.110450@f14g2000cwb.googlegroups.com...
> Would emt work for this? http://www.arrowantennas.com/j-pole.html
>
not as good as copper pipe or aluminum arrows or threaded rod

---
Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.818 / Virus Database: 556 - Release Date: 12/17/2004

## 4187. Newbie question: how many tuners can a single antannae attached to ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-26 06:17:31 UTC
From: "drwho102003-googlegroups@yahoo.com" <drwho102003-googlegroups@yahoo.com>
Message-ID: <1104041851.488745.140280@c13g2000cwb.googlegroups.com>
Source record: 84684

I'm trying to find out if it is feasible to build a box that is
attached
to a single rooftop antannae but with multiple tuner cards/chips in it.
I'm trying to record multiple shows over-the-air(onto local disks)
simultaneously.

# 4188. Re: Newbie question: how many tuners can a single antannae attached to ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-26 06:53:34 UTC
From: dplatt@radagast.org
Message-ID: <10ssnvefvufg58d@corp.supernews.com>
Source record: 84685

>I'm trying to find out if it is feasible to build a box that is
>attached
>to a single rooftop antannae but with multiple tuner cards/chips in it.
>I'm trying to record multiple shows over-the-air(onto local disks)
>simultaneously.

Sure. You'll want to have some sort of 75-ohm splitter, to divide the signal from the antenna and provide isolation between the tuners.

Depending on the strength of the incoming signal, the number of ways you wish to split it, and the sensitivity of the TV-tuner cards, you may need an RF amplifier (either at the antenna, or as part of the splitter).

How many simultanous recording operations you can do is going to depend on the tuner/compressor/capture cards, the PCI and disk bandwidth of your hardware, the sophisitication of your operating system and application, etc.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

# 4189. Re: Newbie question: how many tuners can a single antannae attached to ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-26 07:56:32 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <e7rss0900m07bqmjevsnn1ignp8pqb6ai1@4ax.com>
Source record: 84686

On 25 Dec 2004 22:17:31 -0800, "drwho102003-googlegroups@yahoo.com"
<drwho102003-googlegroups@yahoo.com> wrote:
>I'm trying to find out if it is feasible to build a box that is attached
>to a single rooftop
Your Tardis? For a Time Lord with two hearts, this should work OK.

73's
The Master

# 4190. AM aerial problem

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-26 08:15:50 UTC
From: David Flew <dgf3@labyrinth.net.au>
Message-ID: <cqls57$262b$1@arachne.labyrinth.net.au>
Source record: 84687

Hi
Can someone help me with a solution to my AM radio problem. I have just replaced a cheap clock radio with an expensive and much better sounding one. The aim was to improve sound quality ( which it has done) and reduce the interference from ADSL modem ( which it hasn't). This is a reasonably expensive clock radio, with no external AM aerial connection. Being used bedside, it needs to be oriented so that you can see the clock face. Of course Murphy's law prevails, and the ideal orientation for seeing the clock, dial etc is at almost exactly 90 degrees to the ideal orientation for best reception. In the "best reception" orientation the ADSL interference is minimal, and quite acceptable to the radio's owner.

Re-arranging the bedroom layout to suit the radio isn't an option, and the radio's owner really likes the AM programming. So I'm looking for another solution.

Is it possible to have some sort of external aerial ( I'll avoid even trying to spell the ant..... word correctly ), feeding via co-ax to a coil or perhaps ferrite rod, close to the clock radio? We are about 30 km from the main transmitter of interest, ( 774 Melbourne 50kW ) so signal strength outside house should not be a problem.

Suggestions welcome.

David

# 4191. Re: Antennas vs Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-26 08:51:12 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10ssus47lgi985c@corp.supernews.com>
Source record: 84688

Airy R. Bean wrote:
> . . .
> Let those who are CBers
> and CBers-Masquerading-As-Radio-Hams identify themselves by
> continuing with the use of the uneducated errneous plural!
>

At the head of the list of those egregious ignoramuses (ignorami?) surely is the late Dr. John Kraus, W8JK, author of the textbook _Antennas_, surely the most respected and quoted textbook on the subject of all time.

I'm sure glad we have true scholars to correct us and show us the the error of our ways and the true path to enlightenment. It was truly awful to have been a victim of such ignorance for so long. Thank you Mr. Bean!

Roy Lewallen, W7EL

# 4192. Re: 2 antennas on 802.11 device?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-26 09:10:04 UTC
From: CW <cmagers@earthlink.net>
Message-ID: <cLudnchI4o0P4lPcRVn-sQ@comcast.com>
Source record: 84689

Doesn't matter. You can't legally modify it.

<sammyh@3rddim.com> wrote in message
news:1103301047.835195.251430@z14g2000cwz.googlegroups.com...
> Thanks for the great info,
>
> About part 15... If I use a unity gain antenna, I should be OK right,
> since I am actually decreasing signal strength through a longer antenna
> run.
>

# 4193. Re: AM radio reception inside passenger planes?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-26 09:40:21 UTC
From: Robert Baer <robertbaer@earthlink.net>
Message-ID: <41CE86FF.85FDFF56@earthlink.net>
Source record: 84690
Cross-posted to: rec.travel.air,rec.radio.amateur.antenna,sci.electronics.equipment

Ed Price wrote:
>
> "Watson A.Name - "Watt Sun, the Dark Remover"" <NOSPAM@dslextreme.com> wrote
> in message news:10sogbltgk661db@corp.supernews.com...
> >
> > "Richard Clark" <kb7qhc@comcast.net> wrote in message
> > news:mf2nr0hn2u850gube0gsuo07df1hs5ee1b@4ax.com...
> >> On Sat, 11 Dec 2004 14:11:44 -0800, "Ed Price" <edprice@cox.net>
> >> wrote:
> >>
> >> >You
> >> >are asking him to allow a potentially dangerous device to be operated
> > just
> >> >for your convenience and entertainment. Switch roles for just a
> > minute.
> >>
> >> Hi Ed,
> >>
> >> This would make sense (to switch roles) if the administration hadn't
> >> trumped that call. Reports recently indicate that the FAA may soon
> >> allow anyone, anytime, to make cell phone calls while in flight.
> >>
> >> Anything goes for a price. The FDA has proven that it is no longer
> >> the watchdog of medicine, and the FCC is the gateway for spectrum
> >> bargains and marketplace sweeps.
> >>
> >> With these acronyms, one may well wonder what the "F" stands for.
> >>
> >> 73's
> >> Richard Clark, KB7QHC
> >
> > If you make your own TRF receiver, with no LO, it won't interfere with
> > anything. In fact, you can then put an AM detector in it, and also
> > listen to the aircraft chatter.
> >
> > Another way is to listen to stations at or below 97.3 MHz, which would
> > keep the LO at 108 MHz or below.
> >
> >
> >
>
> Like maybe putting the LO at about 80 MHz, so that the 3rd harmonic of the
> LO drops into the UHF navcom band?

>
> Ed
> wb6wsn

It is official; i just read in one of my electronigs mags i get that
the FAA indeed has ruled that airlines can allow use of computers over
the net when flying.
But it is up to each given airline to modify their own giudelines (as
they see fit).

# 4194. Re: AM radio reception inside passenger planes?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-26 09:43:53 UTC
From: Robert Baer <robertbaer@earthlink.net>
Message-ID: <41CE87D3.1FF10F26@earthlink.net>
Source record: 84691
Cross-posted to: rec.travel.air,rec.radio.amateur.antenna,sci.electronics.equipment

Ed Price wrote:
>
> "Watson A.Name - "Watt Sun, the Dark Remover"" <NOSPAM@dslextreme.com> wrote
> in message news:10soh0lbeei8o20@corp.supernews.com...
> >
> > "Some Guy" <Some@guy.com> wrote in message
> > news:41BB8C6A.FD42C1E7@guy.com...
> >> What a load of horse shit.
> >
> >> You guys are acting as if the engines and flight control surfaces of
> >> an aircraft are intimately tied to the plane's radio receiver, and the
> >> slightest odd or out-of-place signal that it receives is enough to
> >> send any plane into a tail spin.
> >
> > No, the laws say that you can be arrested for breaking them, and one way
> > to break them is to use a FM radio while the aircraft is flying.
> >
> >> All this while the air travel industry is considering allowing
> >> passengers to use their own cell phones WHILE THE PLANES ARE IN FLIGHT
> >> by adding cell-phone relay stations to the planes and allowing any
> >> such calls to be completed via satellite. So I guess the feeble
> >> radiation by my FM radio (powered by 2 AAA batteries) is enough to
> >> cause a plane to dive into the ocean, but the guy next to me putting
> >> out 3 watts of near-microwave energy is totally safe.
> >
> > You don't know what you're talking about. With the attitudes of the air
> > marshals nowadays, making airliners turn around and go back to their
> > departure point just because a passenger is unruly, there is a high
> > probability that one of them is flying along on your flight, and if he
> > sees an earphone hanging out of your ear, you might be that unruly
> > passenger they arrest at the departure point. Especially with your
> > nasty attitude!
> >
> >> What about my hand-held GPS unit? Any chance me using it (during all
> >> phases of a flight, which I do routinely) will result in a one-way
> >> ticket to kingdom come?
> >
> > Geez, what a TWERP! You can't add two and two without jumping to
> > conclusions! A rational conversation with you is nearly impossible.
> >
> >> Getting back to the original question (poor to non-existant AM
> >> reception), I understand the idea of aperature and long wavelenths of
> >> AM radio and the size of airplane windows - but what about the effect

> >> of ALL the windows on a plane? Don't they create a much larger
> >> effective apperature when you consider all of them? And since the
> >> plane isin't grounded, isin't the exterior shell of a plane
> >> essentially transparent to all RF (ie it's just a re-radiator) because
> >> it's not at ground potential?
> >
> > You're even dumber than I had thought. Look up Faraday Shield.
> > Here, try this: http://www.physlink.com/Education/AskExperts/ae176.cfm
> > You don't have to worry about a ground for it to work. Duh.
> >
>
> He's not dumber than "I" thought!
>
> Ed
> wb6wsn

"Faraday shield" to some degree is a myth.
I have seen radars inside quonset huts track a *bird* flying a few
miles away (thru the metal wall)!

# 4195. Re: Antennas vs Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-26 10:36:43 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <337ip7F3tjmc5U1@individual.net>
Source record: 84692

So you cannot substantiate your assertion that
"Antenna/e" is originally a Greek word?

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:hthrs01pekd4pgr23q46n42p6odr0i189j@4ax.com...
> On Sat, 25 Dec 2004 19:51:47 -0000, "Airy R. Bean" <me@privacy.net>
> wrote:
>
> >So you cannot substantiate your assertion.
> >
> >Most Greek words that I have encountered can be
> >expressed phonetically in English.
> >
> Sounds like rhetoric in place of argument. As I said, the original
> Greek is found in the OED - if, of course, you speak from its
> authority and you have access, otherwise your response is called
> "winging it" (vulgar US colloq. ca. 20th cent.) ;-)
>
> The Greek (this is from the OED by the way) was translated by
> Theodosius, the Monophysite monk (d. 1478 Gaza). By the way, for
> English there is no earlier usage of Antenna|e than 1698.
>
> From Weekly:
> "Greek is recorded, in the Homeric poems, from the 7th century
> B.C. It was divided into a number of dialects - Ionic, Doric,
> Aeolic, Attic - the last of which eventually prevailed and still
> exists, not greatly changed, as Modern Greek. Its direct
> contribution to English does not begin till the Renaissance,
> but the coinage of scientific and philosophical terms of
> Greek origin is now continuous."
>
> 73's
> Richard Clark, KB7QHC

# 4196. Re: Antennas vs Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-26 10:37:39 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <337ip8F3tjmc5U2@individual.net>
Source record: 84693

If he is dead, then he is not a candidate to remedy his
error by continued usage, is he?

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:10ssus47lgi985c@corp.supernews.com...
> Airy R. Bean wrote:
> > . . .
> > Let those who are CBers
> > and CBers-Masquerading-As-Radio-Hams identify themselves by
> > continuing with the use of the uneducated errneous plural!
> >
>
> At the head of the list of those egregious ignoramuses (ignorami?)
> surely is the late Dr. John Kraus, W8JK, author of the textbook
> _Antennas_, surely the most respected and quoted textbook on the subject
> of all time.
>
> I'm sure glad we have true scholars to correct us and show us the the
> error of our ways and the true path to enlightenment. It was truly awful
> to have been a victim of such ignorance for so long. Thank you Mr. Bean!
>
> Roy Lewallen, W7EL

# 4197. Re: AM radio reception inside passenger planes?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-26 11:31:01 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <Phxzd.7932$8e5.7328@fed1read07>
Source record: 84694
Cross-posted to: rec.travel.air,rec.radio.amateur.antenna,sci.electronics.equipment

"Robert Baer" <robertbaer@earthlink.net> wrote in message
news:41CE87D3.1FF10F26@earthlink.net...
> Ed Price wrote:
>>
>> "Watson A.Name - "Watt Sun, the Dark Remover"" <NOSPAM@dslextreme.com>
>> wrote
>> in message news:10soh0lbeei8o20@corp.supernews.com...
>> >
>> > "Some Guy" <Some@guy.com> wrote in message
>> > news:41BB8C6A.FD42C1E7@guy.com...
>> >> What a load of horse shit.
>> >
>> >> You guys are acting as if the engines and flight control surfaces of
>> >> an aircraft are intimately tied to the plane's radio receiver, and the
>> >> slightest odd or out-of-place signal that it receives is enough to
>> >> send any plane into a tail spin.
>> >
>> > No, the laws say that you can be arrested for breaking them, and one
>> > way
>> > to break them is to use a FM radio while the aircraft is flying.
>> >
>> >> All this while the air travel industry is considering allowing
>> >> passengers to use their own cell phones WHILE THE PLANES ARE IN FLIGHT
>> >> by adding cell-phone relay stations to the planes and allowing any
>> >> such calls to be completed via satellite. So I guess the feeble
>> >> radiation by my FM radio (powered by 2 AAA batteries) is enough to
>> >> cause a plane to dive into the ocean, but the guy next to me putting
>> >> out 3 watts of near-microwave energy is totally safe.
>> >
>> > You don't know what you're talking about. With the attitudes of the
>> > air
>> > marshals nowadays, making airliners turn around and go back to their
>> > departure point just because a passenger is unruly, there is a high
>> > probability that one of them is flying along on your flight, and if he
>> > sees an earphone hanging out of your ear, you might be that unruly
>> > passenger they arrest at the departure point. Especially with your
>> > nasty attitude!
>> >
>> >> What about my hand-held GPS unit? Any chance me using it (during all
>> >> phases of a flight, which I do routinely) will result in a one-way
>> >> ticket to kingdom come?
>> >
>> > Geez, what a TWERP! You can't add two and two without jumping to

>> > conclusions! A rational conversation with you is nearly impossible.
>> >
>> >> Getting back to the original question (poor to non-existant AM
>> >> reception), I understand the idea of aperature and long wavelenths of
>> >> AM radio and the size of airplane windows - but what about the effect
>> >> of ALL the windows on a plane? Don't they create a much larger
>> >> effective apperature when you consider all of them? And since the
>> >> plane isin't grounded, isin't the exterior shell of a plane
>> >> essentially transparent to all RF (ie it's just a re-radiator) because
>> >> it's not at ground potential?
>> >
>> > You're even dumber than I had thought. Look up Faraday Shield.
>> > Here, try this: http://www.physlink.com/Education/AskExperts/ae176.cfm
>> > You don't have to worry about a ground for it to work. Duh.
>> >
>>
>> He's not dumber than "I" thought!
>>
>> Ed
>> wb6wsn
>
> "Faraday shield" to some degree is a myth.
> I have seen radars inside quonset huts track a *bird* flying a few
> miles away (thru the metal wall)!

You must have some strange buddies. Who in the world would set up a radar within a metal hut? And even if they did, who would think it's a good idea to stay inside with it if it were on?

There's nothing mythical about the Faraday shield; it works really well, so long as there are no discontinuities (apertures) and sufficient thickness and conductivity. Under real-world conditions, steel works pretty good, and any thickness sufficient to support itself will yield great shielding effectiveness. So the only real performance variable left is the holes in the conductive surface. How many, maximum dimension, proximity of radiating source to the shield, etc.

While I would expect a Quonset hut to really mess up the accuracy of a radar, it likely wouldn't be a good shield, as the floor isn't metal, I don't think the ends are metal, and the various skin panels are rather poorly RF bonded.

Ed
wb6wsn

# 4198. Re: Newbie question: how many tuners can a single antannae attached to ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-26 14:11:17 UTC
From: Bob Miller <rmiller47@satx.rr.com>
Message-ID: <6jhts0ddkqh5ot507m5ohbj9cipka16758@4ax.com>
Source record: 84695

On 25 Dec 2004 22:17:31 -0800, "drwho102003-googlegroups@yahoo.com"
<drwho102003-googlegroups@yahoo.com> wrote:

>I'm trying to find out if it is feasible to build a box that is
>attached
>to a single rooftop antannae but with multiple tuner cards/chips in it.
>I'm trying to record multiple shows over-the-air(onto local disks)
>simultaneously.

Get a distribution amplifier.

Bob
k5qwg

# 4199. Latest Version of SmartSmith and the auxilliary Plotting Package

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-26 14:55:12 UTC
From: W9DMK <w9dmk@crosslink.net>
Message-ID: <41cebc87.5697122@news.crosslink.net>
Source record: 84696

The free SmartSmith program and its auxiliary plotting package,
NetworkProcessor300 are both availabe in their latest versions at the
following web site:

http://zaffora.f2o.org/W9DMK/W9dmk.html

Once the latest version of SmartSmith is installed, just unzip the
plotting package into the same application folder.

Please report any difficulties to w9dmk@crosslink.net

73,

Bob, W9DMK, Dahlgren, VA
http://www.qsl.net/w9dmk

# 4200. Re: AM aerial problem

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-26 16:13:25 UTC
From: harrogate2 <harrogate2@ntlworld.com>
Message-ID: <FqBzd.80$Dp4.49@newsfe2-win.ntli.net>
Source record: 84697

"David Flew" <dgf3@labyrinth.net.au> wrote in message
news:cqls57$262b$1@arachne.labyrinth.net.au...
> Hi
> Can someone help me with a solution to my AM radio problem. I have
just
> replaced a cheap clock radio with an expensive and much better
sounding one.
> The aim was to improve sound quality ( which it has done) and reduce
the
> interference from ADSL modem ( which it hasn't). This is a
reasonably
> expensive clock radio, with no external AM aerial connection. Being
used
> bedside, it needs to be oriented so that you can see the clock face.
Of
> course Murphy's law prevails, and the ideal orientation for seeing
the
> clock, dial etc is at almost exactly 90 degrees to the ideal
orientation for
> best reception. In the "best reception" orientation the ADSL
interference
> is minimal, and quite acceptable to the radio's owner.
>
> Re-arranging the bedroom layout to suit the radio isn't an option,
and the
> radio's owner really likes the AM programming. So I'm looking for
another
> solution.
>
> Is it possible to have some sort of external aerial ( I'll avoid
even trying
> to spell the ant..... word correctly ), feeding via co-ax to a coil
or
> perhaps ferrite rod, close to the clock radio? We are about 30 km
from the
> main transmitter of interest, ( 774 Melbourne 50kW ) so signal
strength
> outside house should not be a problem.
>
> Suggestions welcome.
>
> David
>
>

>
>

A bit of lateral thinking perhaps?

Why not either move your ADSL modem, or wrap it in cooking foil and
earth the foil?

--
Woody

harrogate2 at ntlworld dot com

# 4201. Re: AM aerial problem

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-26 16:49:46 UTC
From: Jim <IHateSpam@NoSpam.net>
Message-ID: <GYBzd.1574$3f3.1093@fe39.usenetserver.com>
Source record: 84698

"David Flew" <dgf3@labyrinth.net.au> wrote in message
news:cqls57$262b$1@arachne.labyrinth.net.au...
> Hi
> Can someone help me with a solution to my AM radio problem. I have just
> replaced a cheap clock radio with an expensive and much better sounding
> one.
> The aim was to improve sound quality ( which it has done) and reduce the
> interference from ADSL modem ( which it hasn't). This is a reasonably
> expensive clock radio, with no external AM aerial connection. Being used
> bedside, it needs to be oriented so that you can see the clock face. Of
> course Murphy's law prevails, and the ideal orientation for seeing the
> clock, dial etc is at almost exactly 90 degrees to the ideal orientation
> for
> best reception. In the "best reception" orientation the ADSL interference
> is minimal, and quite acceptable to the radio's owner.
>
> Re-arranging the bedroom layout to suit the radio isn't an option, and the
> radio's owner really likes the AM programming. So I'm looking for another
> solution.
>
> Is it possible to have some sort of external aerial ( I'll avoid even
> trying
> to spell the ant..... word correctly ), feeding via co-ax to a coil or
> perhaps ferrite rod, close to the clock radio? We are about 30 km from
> the
> main transmitter of interest, ( 774 Melbourne 50kW ) so signal strength
> outside house should not be a problem.
>
> Suggestions welcome.
>
> David
>
>
>
>

I say it is worth the try.

The interference may not be directly from the DSL modem itself, but leaking from the cables. If I recall correctly, the DSL signal (at least here in the USA) is a couple of watts somewhere aorund the AM broadcast band. So you essentially have a 2 watt transmitter pumping out wide-band trash within a few meters of your receiver.

There used to be a 'AM signal booster' available. All it consisted of was a coil of wire about 8 inches in diameter witha variable capacitor for tuning. You just placed it next to your AM radio and the coil coupled into the built-in loopstick antenna.

Jim
N8EE

# 4202. Re: Antennas vs Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-26 17:18:04 UTC
From: "J. Teske" <jdteske@comcast.net>
Message-ID: <pgsts0d36ppcg2ditp1q3f06a6v4i7oees@4ax.com>
Source record: 84699

On Sun, 26 Dec 2004 10:37:39 -0000, "Airy R. Bean" <me@privacy.net>
wrote:

>If he is dead, then he is not a candidate to remedy his
>error by continued usage, is he?

FYI, Dr. John Kraus died just this past year at a very venerable age.
>
>"Roy Lewallen" <w7el@eznec.com> wrote in message
>news:10ssus47lgi985c@corp.supernews.com...
>> Airy R. Bean wrote:
>> > . . .
>> > Let those who are CBers
>> > and CBers-Masquerading-As-Radio-Hams identify themselves by
>> > continuing with the use of the uneducated errneous plural!
>> >
>>
>> At the head of the list of those egregious ignoramuses (ignorami?)
>> surely is the late Dr. John Kraus, W8JK, author of the textbook
>> _Antennas_, surely the most respected and quoted textbook on the subject
>> of all time.
>>
>> I'm sure glad we have true scholars to correct us and show us the the
>> error of our ways and the true path to enlightenment. It was truly awful
>> to have been a victim of such ignorance for so long. Thank you Mr. Bean!
>>
>> Roy Lewallen, W7EL
>

# 4203. Re: Ladder line in a rotor loop?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-26 17:40:25 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <338bcfF3tiff7U1@individual.net>
Source record: 84700

"JGBOYLES" wrote in message>
> Hi Doc, You have 4 quadrants of 90 degrees, and a bi directional 180
> degree
> antenna. You would have to rotate the antenna 180 degrees to get 360
> degree
> coverage of the main lobes. If you only rotate 90 then there will be 90
> degrees somewhere that will not get the benefit of the main lobe. Am I
> wrong?

---

Just to note that the net pattern of a real dipole near the ground is NOT its classic, free-space form to begin with, and could vary as it is rotated as a function of varying environmental effects.

It's probably more important to worry about the mins than the maxes, but no doubt you won't exactly know in which directions any of them exist, anyway.

RF

## 4204. :-) *** A Love Gift For You! *** (-:

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-26 19:18:53 UTC
From: aol12131@yahoo.com
Message-ID: <1104088732.988991.100090@z14g2000cwz.googlegroups.com>
Source record: 84701

www.gift.boxke.net << click link

# 4205. Re: Antennas vs Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-26 19:55:38 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <sh5us0tsavopdoqguvjfrrc13qq4e6ijvl@4ax.com>
Source record: 84703

On Sun, 26 Dec 2004 10:36:43 -0000, "Airy R. Bean" <me@privacy.net>
wrote:
>So you cannot substantiate your assertion that
>"Antenna/e" is originally a Greek word?

That's been done. Look all you need do is drive north a dozen miles
or so to confirm.

# 4206. Re: AM radio reception inside passenger planes?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-26 19:56:48 UTC
From: "Watson A.Name - \"Watt Sun, the Dark Remover\"" <NOSPAM@dslextreme.com>
Message-ID: <10su5obeorv3ke6@corp.supernews.com>
Source record: 84702
Cross-posted to: rec.travel.air,rec.radio.amateur.antenna,sci.electronics.equipment

"Robert Baer" <robertbaer@earthlink.net> wrote in message
news:41CE87D3.1FF10F26@earthlink.net...
> Ed Price wrote:
> >
> > "Watson A.Name - "Watt Sun, the Dark Remover""
<NOSPAM@dslextreme.com> wrote
> > in message news:10soh0lbeei8o20@corp.supernews.com...
> > >
> > > "Some Guy" <Some@guy.com> wrote in message
> > > news:41BB8C6A.FD42C1E7@guy.com...
> > >> What a load of horse shit.
> > >
> > >> You guys are acting as if the engines and flight control surfaces
of
> > >> an aircraft are intimately tied to the plane's radio receiver,
and the
> > >> slightest odd or out-of-place signal that it receives is enough
to
> > >> send any plane into a tail spin.
> > >
> > > No, the laws say that you can be arrested for breaking them, and
one way
> > > to break them is to use a FM radio while the aircraft is flying.
> > >
> > >> All this while the air travel industry is considering allowing
> > >> passengers to use their own cell phones WHILE THE PLANES ARE IN
FLIGHT
> > >> by adding cell-phone relay stations to the planes and allowing
any
> > >> such calls to be completed via satellite. So I guess the feeble
> > >> radiation by my FM radio (powered by 2 AAA batteries) is enough
to
> > >> cause a plane to dive into the ocean, but the guy next to me
putting
> > >> out 3 watts of near-microwave energy is totally safe.
> > >
> > > You don't know what you're talking about. With the attitudes of
the air
> > > marshals nowadays, making airliners turn around and go back to
their
> > > departure point just because a passenger is unruly, there is a
high
> > > probability that one of them is flying along on your flight, and

if he
> > > sees an earphone hanging out of your ear, you might be that unruly
> > > passenger they arrest at the departure point. Especially with
your
> > > nasty attitude!
> > >
> > >> What about my hand-held GPS unit? Any chance me using it (during
all
> > >> phases of a flight, which I do routinely) will result in a
one-way
> > >> ticket to kingdom come?
> > >
> > > Geez, what a TWERP! You can't add two and two without jumping to
> > > conclusions! A rational conversation with you is nearly
impossible.
> > >
> > >> Getting back to the original question (poor to non-existant AM
> > >> reception), I understand the idea of aperature and long
wavelenths of
> > >> AM radio and the size of airplane windows - but what about the
effect
> > >> of ALL the windows on a plane? Don't they create a much larger
> > >> effective apperature when you consider all of them? And since
the
> > >> plane isin't grounded, isin't the exterior shell of a plane
> > >> essentially transparent to all RF (ie it's just a re-radiator)
because
> > >> it's not at ground potential?
> > >
> > > You're even dumber than I had thought. Look up Faraday Shield.
> > > Here, try this:
http://www.physlink.com/Education/AskExperts/ae176.cfm
> > > You don't have to worry about a ground for it to work. Duh.
> > >
> >
> > He's not dumber than "I" thought!
> >
> > Ed
> > wb6wsn
>
> "Faraday shield" to some degree is a myth.

You use weasel words like 'to some degree' to avoid talking about the
truth. Radio waves don't go thru a sheet of metal.

> I have seen radars inside quonset huts track a *bird* flying a few
> miles away (thru the metal wall)!

No, not thru a metal wall. I saw the radar go thru the wooden walls of
the bldg when I was in radar repair school in the army. But that was
wood. Your so-called metal quonset hut was probably wood or fiberglass.

If you saw anything, it was probably your own reflection off the metal walls, IF it didn't fry you like a porkchop in a microwave oven!

# 4207. Re: Antenna help needed - Thank you

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-26 23:02:18 UTC
From: Jerry <joxendi@bellsouth.net>
Message-ID: <TmHzd.4353$ct2.3396@bignews5.bellsouth.net>
Source record: 84704

"N7ZZT - Eric Oyen" <n7zzt@127.0.0.1> wrote in message
news:VNXxd.68856$DC.14005@fed1read03...
> W4JLE wrote:
>
>> For the humor challenged: It's a JOKE... Jheeez!
>>
>> My sincere apologies if I twisted any one's panties...
>>

Why tan fer thar, mercy sakes thar, shore thang thar, I knowed hit was a joke thar, gre't day, guaran'tole ye, sho' nuff. So kick hit back wid 10 pounds o' smoke thar, yore a-walkin' the dog, yessiree thar. An' this be the OONNNNEE MoonDawgie in Nawth Ca'lina, we just got down!!"

LMAO

Sebney thirds thar!

Jerry

> unfortunately, due to the vagaries of this medium, it is sometimes rather
> difficult to tell if there is a joke or not (hence EMOTICONS).
>
> --
> DE N7ZZT
> Eric Oyen
> Phoenix, Arizona
> e-mail: n7zzt(at)hotmail(dot)com
> the difference between intelligence and stupidity is that intelligence
> has its limits.

# 4208. Re: Antenna help needed - Thank you

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-26 23:13:15 UTC
From: N8WWM <N8WWM@arrl.net>
Message-ID: <1104103000.65c3a9a8d9730fb2357b66ce32589140@teranews>
Source record: 84705

"Jerry" <joxendi@bellsouth.net> wrote in message
news:TmHzd.4353$ct2.3396@bignews5.bellsouth.net...
>
> "N7ZZT - Eric Oyen" <n7zzt@127.0.0.1> wrote in message
> news:VNXxd.68856$DC.14005@fed1read03...
>> W4JLE wrote:
>>
>>> For the humor challenged: It's a JOKE... Jheeez!
>>>
>>> My sincere apologies if I twisted any one's panties...
>>>
>
> Why tan fer thar, mercy sakes thar, shore thang thar, I knowed hit was a
> joke thar, gre't day, guaran'tole ye, sho' nuff. So kick hit back wid 10
> pounds o' smoke thar, yore a-walkin' the dog, yessiree thar. An' this be
> the OONNNNEE MoonDawgie in Nawth Ca'lina, we just got down!!"
>
> LMAO
>
> Sebney thirds thar!
>
> Jerry
>
>
What a faggot douche bag you are oxenmoron.

## 4209. external antenna....

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-27 00:17:16 UTC
From: sipa <sipa@hrtv.net>
Message-ID: <cqnkba$r4i$1@ls219.htnet.hr>
Source record: 84706

Hi all!

Please give me advice how can i connect external sw or mw antenna to
reciever that does not have connector for ext. antenna?
I opened reciever and see that there is ferite with one coil of copper
wire... but theare are four wires comeing from that "coil" to circuit board
of reciever (two coils one on top other?).....

i have randoom wire + 9:1 trafo + coaxial 50 ohms cable.... and i can use
combination with 300 oms twin lead cable....

thanx

# 4210. Re: Antenna help needed - Thank you

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-27 00:43:49 UTC
From: Russ <carlzomer@hotmail.com>
Message-ID: <5jmus059l505ll0if9577ak690hjslnlb8@4ax.com>
Source record: 84707

On Sun, 26 Dec 2004 18:13:15 -0500, "N8WWM" <N8WWM@arrl.net> wrote:

>
>"Jerry" <joxendi@bellsouth.net> wrote in message
>news:TmHzd.4353$ct2.3396@bignews5.bellsouth.net...
>>
>> "N7ZZT - Eric Oyen" <n7zzt@127.0.0.1> wrote in message
>> news:VNXxd.68856$DC.14005@fed1read03...
>>> W4JLE wrote:
>>>
>>>> For the humor challenged: It's a JOKE... Jheeez!
>>>>
>>>> My sincere apologies if I twisted any one's panties...
>>>>
>>
>> Why tan fer thar, mercy sakes thar, shore thang thar, I knowed hit was a
>> joke thar, gre't day, guaran'tole ye, sho' nuff. So kick hit back wid 10
>> pounds o' smoke thar, yore a-walkin' the dog, yessiree thar. An' this be
>> the OONNNNEE MoonDawgie in Nawth Ca'lina, we just got down!!"
>>
>> LMAO
>>
>> Sebney thirds thar!
>>
>> Jerry
>>
>>
>What a faggot douche bag you are oxenmoron.
>

Now there is a netnews post sure to make Mom and Dad proud. Do you
lay awake at night thinking up repartee like that?

Russ

## 4211. giant ham radio & electronic surplus swap meet

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-27 01:15:23 UTC
From: webberdog@webtv.net
Message-ID: <6515-41CF622B-121@storefull-3335.bay.webtv.net>
Source record: 84709

THE W6TRW ARC SWAPMEET
Address:http://www.w6trw.com/swapmeet/w6trw_arc_swapmeet.htm

# 4212. Re: Newbie question: how many tuners can a single antannae attached to ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-27 01:15:59 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <OtidnaUP7L3X_1LcRVn-qQ@comcast.com>
Source record: 84708

"Bob Miller" <rmiller47@satx.rr.com> wrote in message
news:6jhts0ddkqh5ot507m5ohbj9cipka16758@4ax.com...
> On 25 Dec 2004 22:17:31 -0800, "drwho102003-googlegroups@yahoo.com"
> <drwho102003-googlegroups@yahoo.com> wrote:
>
>>I'm trying to find out if it is feasible to build a box that is
>>attached
>>to a single rooftop antannae but with multiple tuner cards/chips in it.
>>I'm trying to record multiple shows over-the-air(onto local disks)
>>simultaneously.
>
> Get a distribution amplifier.
>
> Bob
> k5qwg
>
Just don't get an amp that is meant to be used with cable. You need the kind
meant for off the air signals. Or, a single output amp with 10 - 15 db gain
followed by a 1:4 splitter.

Tam/WB2TT

# 4213. Re: AM aerial problem

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-27 02:51:24 UTC
From: CW <cmagers@earthlink.net>
Message-ID: <2KudnaSW-ejM5VLcRVn-uQ@comcast.com>
Source record: 84710

Do a Google search on CCrane. They sell a couple of antennas that should help you out. One is the Select-A-Tenna. It is a loop such as Jim referred to. It works quite well. Improves reception dramatically and is directional with good nulls to kill the noise. The second mounts outside and runs into the radio via cable. There is a ferrite bar that attaches to the radio so no connection required.

"Jim" <IHateSpam@NoSpam.net> wrote in message
news:GYBzd.1574$3f3.1093@fe39.usenetserver.com...
> I say it is worth the try.
>
> The interference may not be directly from the DSL modem itself, but
leaking
> from the cables. If I recall correctly, the DSL signal (at least here in
> the USA) is a couple of watts somewhere aorund the AM broadcast band. So
> you essentially have a 2 watt transmitter pumping out wide-band trash
within
> a few meters of your receiver.
>
> There used to be a 'AM signal booster' available. All it consisted of was
a
> coil of wire about 8 inches in diameter witha variable capacitor for
> tuning. You just placed it next to your AM radio and the coil coupled
into
> the built-in loopstick antenna.
>
> Jim
> N8EE
>
>
>

## 4214. Re: external antenna....

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-27 02:53:45 UTC
From: richardharrison@webtv.net
Message-ID: <3785-41CF7939-12@storefull-3255.bay.webtv.net>
Source record: 84711

Sipa wrote:
"I opened the receiver and see there is ferite with one coil of copper wire..."

Wind your own antenna primary on the loopstick.Just a few turns should provide enough coupling without upsetting the circuit. Twist the antenna primary coil leads and route them outside the radio for antenna and ground connections.

Best regards, Richard Harrison, KB5WZI

# 4215. Re: Modification of G5RV - need help on this

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-27 06:21:23 UTC
From: F8BOE <f8boe-8@bluemail.ch>
Message-ID: <41cfa9e5$0$31585$626a14ce@news.free.fr>
Source record: 84712

Hello,

Yes, easy... Modify it to obtain a Levy and add a Levy coupler.
Forget the direct coax feeding through a CB miracle-black-box. Use a longer ladder line right to the Levy coupler, the dipole should be long enough.

73 de F8BOE Olivier ...-.-

<none@none.com> a crit dans le message de news:
g97rs05mcn3ecvacruajmuqtjbf0705fn8@4ax.com...
>I am using a G5RV and an Icom 756Pro II. The auto antenna tuner will
> tune the antenna fine except in the area of 3963.5 and up to at least
> 4.0385. I use 4.0385 as a member of MARS. Right now my SWR "as
> shown" is well into the "red zone".
>
> Is there any way to modify the antenna to get it to be a better match
> so that the auto tuner can do its thing. The antenna is the shortened
> or Jr. version with a ladder wire lead in.
>
> Would changing the lead in to RG8 coax be a help??
>
> Sure will appreciate some help. I am a novice at this and it is
> important that I am able to use 4.083.5.
>

# 4216. Re: AM radio reception inside passenger planes?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-27 08:18:18 UTC
From: Robert Baer <robertbaer@earthlink.net>
Message-ID: <41CFC544.53731880@earthlink.net>
Source record: 84713
Cross-posted to: rec.travel.air,rec.radio.amateur.antenna,sci.electronics.equipment

Ed Price wrote:
>
> "Robert Baer" <robertbaer@earthlink.net> wrote in message
> news:41CE87D3.1FF10F26@earthlink.net...
> > Ed Price wrote:
> >>
> >> "Watson A.Name - "Watt Sun, the Dark Remover"" <NOSPAM@dslextreme.com>
> >> wrote
> >> in message news:10soh0lbeei8o20@corp.supernews.com...
> >> >
> >> > "Some Guy" <Some@guy.com> wrote in message
> >> > news:41BB8C6A.FD42C1E7@guy.com...
> >> >> What a load of horse shit.
> >> >
> >> >> You guys are acting as if the engines and flight control surfaces of
> >> >> an aircraft are intimately tied to the plane's radio receiver, and the
> >> >> slightest odd or out-of-place signal that it receives is enough to
> >> >> send any plane into a tail spin.
> >> >
> >> > No, the laws say that you can be arrested for breaking them, and one
> >> > way
> >> > to break them is to use a FM radio while the aircraft is flying.
> >> >
> >> >> All this while the air travel industry is considering allowing
> >> >> passengers to use their own cell phones WHILE THE PLANES ARE IN FLIGHT
> >> >> by adding cell-phone relay stations to the planes and allowing any
> >> >> such calls to be completed via satellite. So I guess the feeble
> >> >> radiation by my FM radio (powered by 2 AAA batteries) is enough to
> >> >> cause a plane to dive into the ocean, but the guy next to me putting
> >> >> out 3 watts of near-microwave energy is totally safe.
> >> >
> >> > You don't know what you're talking about. With the attitudes of the
> >> > air
> >> > marshals nowadays, making airliners turn around and go back to their
> >> > departure point just because a passenger is unruly, there is a high
> >> > probability that one of them is flying along on your flight, and if he
> >> > sees an earphone hanging out of your ear, you might be that unruly
> >> > passenger they arrest at the departure point. Especially with your
> >> > nasty attitude!
> >> >
> >> >> What about my hand-held GPS unit? Any chance me using it (during all
> >> >> phases of a flight, which I do routinely) will result in a one-way
> >> >> ticket to kingdom come?

> >> >
> >> > Geez, what a TWERP! You can't add two and two without jumping to
> >> > conclusions! A rational conversation with you is nearly impossible.
> >> >
> >> >> Getting back to the original question (poor to non-existant AM
> >> >> reception), I understand the idea of aperature and long wavelenths of
> >> >> AM radio and the size of airplane windows - but what about the effect
> >> >> of ALL the windows on a plane? Don't they create a much larger
> >> >> effective apperature when you consider all of them? And since the
> >> >> plane isin't grounded, isin't the exterior shell of a plane
> >> >> essentially transparent to all RF (ie it's just a re-radiator) because
> >> >> it's not at ground potential?
> >> >
> >> > You're even dumber than I had thought. Look up Faraday Shield.
> >> > Here, try this: http://www.physlink.com/Education/AskExperts/ae176.cfm
> >> > You don't have to worry about a ground for it to work. Duh.
> >> >
> >>
> >> He's not dumber than "I" thought!
> >>
> >> Ed
> >> wb6wsn
> >
> > "Faraday shield" to some degree is a myth.
> > I have seen radars inside quonset huts track a *bird* flying a few
> > miles away (thru the metal wall)!
>
> You must have some strange buddies. Who in the world would set up a radar
> within a metal hut? And even if they did, who would think it's a good idea
> to stay inside with it if it were on?
>
> There's nothing mythical about the Faraday shield; it works really well, so
> long as there are no discontinuities (apertures) and sufficient thickness
> and conductivity. Under real-world conditions, steel works pretty good, and
> any thickness sufficient to support itself will yield great shielding
> effectiveness. So the only real performance variable left is the holes in
> the conductive surface. How many, maximum dimension, proximity of radiating
> source to the shield, etc.
>
> While I would expect a Quonset hut to really mess up the accuracy of a
> radar, it likely wouldn't be a good shield, as the floor isn't metal, I
> don't think the ends are metal, and the various skin panels are rather
> poorly RF bonded.
>
> Ed
> wb6wsn
>

I do not think your objections concerning the floor or the bonding of
the panels are too relevant.

The ends are metal and not relevant either.
The radar was pointing right at the wall (no windows nearby); any presumed leakage via remote holes that you assumed might allow the transmitted signal to leak, but would then not be focused on the bird(s) and the path lengths would vary.
But the reflected signal from the bird or birds would be rather weak and could not possibly be received via the same wild path(s) to a very directional antenna.

My point is that a Farady shield is a good attenuator, but not "perfect" as ASSuMEd.
And it sure is not "flat" in attenuation characteristic as a function of frequency.

# 4217. Re: AM radio reception inside passenger planes?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-27 08:19:42 UTC
From: Robert Baer <robertbaer@earthlink.net>
Message-ID: <41CFC599.7014DADA@earthlink.net>
Source record: 84714
Cross-posted to: rec.travel.air,rec.radio.amateur.antenna,sci.electronics.equipment

```
"Watson A.Name - \"Watt Sun, the Dark Remover\"" wrote:
>
> "Robert Baer" <robertbaer@earthlink.net> wrote in message
> news:41CE87D3.1FF10F26@earthlink.net...
> > Ed Price wrote:
> > >
> > > "Watson A.Name - "Watt Sun, the Dark Remover""
> <NOSPAM@dslextreme.com> wrote
> > > in message news:10soh0lbeei8o20@corp.supernews.com...
> > > >
> > > > "Some Guy" <Some@guy.com> wrote in message
> > > > news:41BB8C6A.FD42C1E7@guy.com...
> > > >> What a load of horse shit.
> > > >
> > > >> You guys are acting as if the engines and flight control surfaces
> of
> > > >> an aircraft are intimately tied to the plane's radio receiver,
> and the
> > > >> slightest odd or out-of-place signal that it receives is enough
> to
> > > >> send any plane into a tail spin.
> > > >
> > > > No, the laws say that you can be arrested for breaking them, and
> one way
> > > > to break them is to use a FM radio while the aircraft is flying.
> > > >
> > > >> All this while the air travel industry is considering allowing
> > > >> passengers to use their own cell phones WHILE THE PLANES ARE IN
> FLIGHT
> > > >> by adding cell-phone relay stations to the planes and allowing
> any
> > > >> such calls to be completed via satellite. So I guess the feeble
> > > >> radiation by my FM radio (powered by 2 AAA batteries) is enough
> to
> > > >> cause a plane to dive into the ocean, but the guy next to me
> putting
> > > >> out 3 watts of near-microwave energy is totally safe.
> > > >
> > > > You don't know what you're talking about. With the attitudes of
> the air
> > > > marshals nowadays, making airliners turn around and go back to
> their
> > > > departure point just because a passenger is unruly, there is a
```

> high
> > > > probability that one of them is flying along on your flight, and
> if he
> > > > > sees an earphone hanging out of your ear, you might be that unruly
> > > > > passenger they arrest at the departure point. Especially with
> your
> > > > > nasty attitude!
> > > > >
> > > > >> What about my hand-held GPS unit? Any chance me using it (during
> all
> > > > >> phases of a flight, which I do routinely) will result in a
> one-way
> > > > >> ticket to kingdom come?
> > > > >
> > > > > Geez, what a TWERP! You can't add two and two without jumping to
> > > > > conclusions! A rational conversation with you is nearly
> impossible.
> > > > >
> > > > >> Getting back to the original question (poor to non-existant AM
> > > > >> reception), I understand the idea of aperature and long
> wavelenths of
> > > > >> AM radio and the size of airplane windows - but what about the
> effect
> > > > >> of ALL the windows on a plane? Don't they create a much larger
> > > > >> effective apperature when you consider all of them? And since
> the
> > > > >> plane isin't grounded, isin't the exterior shell of a plane
> > > > >> essentially transparent to all RF (ie it's just a re-radiator)
> because
> > > > >> it's not at ground potential?
> > > > >
> > > > > You're even dumber than I had thought. Look up Faraday Shield.
> > > > > Here, try this:
> http://www.physlink.com/Education/AskExperts/ae176.cfm
> > > > > You don't have to worry about a ground for it to work. Duh.
> > > > >
> > > >
> > > > He's not dumber than "I" thought!
> > > >
> > > > Ed
> > > > wb6wsn
> >
> > "Faraday shield" to some degree is a myth.
>
> You use weasel words like 'to some degree' to avoid talking about the
> truth. Radio waves don't go thru a sheet of metal.
>
> > I have seen radars inside quonset huts track a *bird* flying a few
> > miles away (thru the metal wall)!
>

> No, not thru a metal wall. I saw the radar go thru the wooden walls of
> the bldg when I was in radar repair school in the army. But that was
> wood. Your so-called metal quonset hut was probably wood or fiberglass.
>
> If you saw anything, it was probably your own reflection off the metal
> walls, IF it didn't fry you like a porkchop in a microwave oven!

Nope; it was a metal quonset hut; Army Signal Corps Fort Huachuca
AridZona.

# 4218. Re: AM aerial problem

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-27 08:41:52 UTC
From: David Flew <dgf3@labyrinth.net.au>
Message-ID: <cqoi21$2g00$1@arachne.labyrinth.net.au>
Source record: 84715

Jim and others. I've played around with ADSL modem location, orientation etc, and whilst it's the cause of the noise, it's the low signal strength at the radio which is what I have to fix. If the radio is right next to ( inches) the modem, and is oriented optimally, the interference is minimal.

I'd hoped for a home grown rather than a commercial solution - but my AM aerial knowledge faded once I stopped playing with crystal sets and battery powered valve radios some decades ago. Also CCrane isn't well represented in the antipodes.

David

"CW" <cmagers@earthlink.net> wrote in message
news:2KudnaSW-ejM5VLcRVn-uQ@comcast.com...
> Do a Google search on CCrane. They sell a couple of antennas that should
> help you out. One is the Select-A-Tenna. It is a loop such as Jim referred
> to. It works quite well. Improves reception dramatically and is
directional
> with good nulls to kill the noise. The second mounts outside and runs into
> the radio via cable. There is a ferrite bar that attaches to the radio so
no
> connection required.
>
> "Jim" <IHateSpam@NoSpam.net> wrote in message
> news:GYBzd.1574$3f3.1093@fe39.usenetserver.com...
> > I say it is worth the try.
> >
> > The interference may not be directly from the DSL modem itself, but
> leaking
> > from the cables. If I recall correctly, the DSL signal (at least here
in
> > the USA) is a couple of watts somewhere aorund the AM broadcast band.
So
> > you essentially have a 2 watt transmitter pumping out wide-band trash
> within
> > a few meters of your receiver.
> >
> > There used to be a 'AM signal booster' available. All it consisted of
was
> a
> > coil of wire about 8 inches in diameter witha variable capacitor for
> > tuning. You just placed it next to your AM radio and the coil coupled
> into
> > the built-in loopstick antenna.
> >

> > Jim
> > N8EE
> >
> >
> >
>
>

# 4219. Re: AM radio reception inside passenger planes?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-27 11:05:16 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <E%Rzd.13929$8e5.9627@fed1read07>
Source record: 84716
Cross-posted to: rec.travel.air,rec.radio.amateur.antenna,sci.electronics.equipment

```
"Robert Baer" <robertbaer@earthlink.net> wrote in message
news:41CFC544.53731880@earthlink.net...
> Ed Price wrote:
>>
>> "Robert Baer" <robertbaer@earthlink.net> wrote in message
>> news:41CE87D3.1FF10F26@earthlink.net...
>> > Ed Price wrote:
>> >>
>> >> "Watson A.Name - "Watt Sun, the Dark Remover"" <NOSPAM@dslextreme.com>
>> >> wrote
>> >> in message news:10soh0lbeei8o20@corp.supernews.com...
>> >> >
>> >> > "Some Guy" <Some@guy.com> wrote in message
>> >> > news:41BB8C6A.FD42C1E7@guy.com...
>> >> >> What a load of horse shit.
>> >> >
>> >> >> You guys are acting as if the engines and flight control surfaces
>> >> >> of
>> >> >> an aircraft are intimately tied to the plane's radio receiver, and
>> >> >> the
>> >> >> slightest odd or out-of-place signal that it receives is enough to
>> >> >> send any plane into a tail spin.
>> >> >
>> >> > No, the laws say that you can be arrested for breaking them, and one
>> >> > way
>> >> > to break them is to use a FM radio while the aircraft is flying.
>> >> >
>> >> >> All this while the air travel industry is considering allowing
>> >> >> passengers to use their own cell phones WHILE THE PLANES ARE IN
>> >> >> FLIGHT
>> >> >> by adding cell-phone relay stations to the planes and allowing any
>> >> >> such calls to be completed via satellite. So I guess the feeble
>> >> >> radiation by my FM radio (powered by 2 AAA batteries) is enough to
>> >> >> cause a plane to dive into the ocean, but the guy next to me
>> >> >> putting
>> >> >> out 3 watts of near-microwave energy is totally safe.
>> >> >
>> >> > You don't know what you're talking about. With the attitudes of the
>> >> > air
>> >> > marshals nowadays, making airliners turn around and go back to their
>> >> > departure point just because a passenger is unruly, there is a high
>> >> > probability that one of them is flying along on your flight, and if
>> >> > he
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>> >> > sees an earphone hanging out of your ear, you might be that unruly
>> >> > passenger they arrest at the departure point. Especially with your
>> >> > nasty attitude!
>> >> >
>> >> >> What about my hand-held GPS unit? Any chance me using it (during
>> >> >> all
>> >> >> phases of a flight, which I do routinely) will result in a one-way
>> >> >> ticket to kingdom come?
>> >> >
>> >> > Geez, what a TWERP! You can't add two and two without jumping to
>> >> > conclusions! A rational conversation with you is nearly impossible.
>> >> >
>> >> >> Getting back to the original question (poor to non-existant AM
>> >> >> reception), I understand the idea of aperature and long wavelenths
>> >> >> of
>> >> >> AM radio and the size of airplane windows - but what about the
>> >> >> effect
>> >> >> of ALL the windows on a plane? Don't they create a much larger
>> >> >> effective apperature when you consider all of them? And since the
>> >> >> plane isin't grounded, isin't the exterior shell of a plane
>> >> >> essentially transparent to all RF (ie it's just a re-radiator)
>> >> >> because
>> >> >> it's not at ground potential?
>> >> >
>> >> > You're even dumber than I had thought. Look up Faraday Shield.
>> >> > Here, try this:
>> >> > http://www.physlink.com/Education/AskExperts/ae176.cfm
>> >> > You don't have to worry about a ground for it to work. Duh.
>> >> >
>> >>
>> >> He's not dumber than "I" thought!
>> >>
>> >> Ed
>> >> wb6wsn
>> >
>> > "Faraday shield" to some degree is a myth.
>> > I have seen radars inside quonset huts track a *bird* flying a few
>> > miles away (thru the metal wall)!
>>
>> You must have some strange buddies. Who in the world would set up a radar
>> within a metal hut? And even if they did, who would think it's a good
>> idea
>> to stay inside with it if it were on?
>>
>> There's nothing mythical about the Faraday shield; it works really well,
>> so
>> long as there are no discontinuities (apertures) and sufficient thickness
>> and conductivity. Under real-world conditions, steel works pretty good,
>> and
>> any thickness sufficient to support itself will yield great shielding

>> effectiveness. So the only real performance variable left is the holes in
>> the conductive surface. How many, maximum dimension, proximity of
>> radiating
>> source to the shield, etc.
>>
>> While I would expect a Quonset hut to really mess up the accuracy of a
>> radar, it likely wouldn't be a good shield, as the floor isn't metal, I
>> don't think the ends are metal, and the various skin panels are rather
>> poorly RF bonded.
>>
>> Ed
>> wb6wsn
>>
>
> I do not think your objections concerning the floor or the bonding of
> the panels are too relevant.
> The ends are metal and not relevant either.
> The radar was pointing right at the wall (no windows nearby); any
> presumed leakage via remote holes that you assumed might allow the
> transmitted signal to leak, but would then not be focused on the bird(s)
> and the path lengths would vary.
> But the reflected signal from the bird or birds would be rather weak
> and could not possibly be received via the same wild path(s) to a very
> directional antenna.
>
> My point is that a Farady shield is a good attenuator, but not
> "perfect" as ASSuMEd.
> And it sure is not "flat" in attenuation characteristic as a function
> of frequency.

Those weren't objections, they were speculations on my part as to how you boys could have been finessing the generally applicable laws of physics.

But truly, the story stinks. So you and your army buddies are in this metal hut, with a fairly high-power radar, and somebody comes up with the bright idea to turn the thing on. Apparently no thought about RF personnel hazards and no concern about strong reflections cooking your detector. Did you test your M16's in a Quonset hut too?

Next point. "The radar was pointing right at the wall..." Now tell me, in a semi-circular Quonset hut, how do you point anything "right at the wall"? Maybe straight up?

Now, a bird doesn't have a very big radar cross section, maybe only about 0.01 square meters, so the return loss is really big. And to resolve a single bird, I'm gonna guess that you had an X or K band radar. So let's run some numbers. Let's say you had a 100kW radar, with a 30 dBi antenna of 1 square meter aperture. At 1500 meters, your detector power would be about 1 picowatt, or -60 dBm. Well hey, that's pretty decent, I'll bet you could see a bird at one mile.

But that's assuming no loss at all due to the metal hut skin. Let's see what happens if we say that the metal hut walls give us only 40 dB of shielding (by absorption or reflection, it doesn't matter). That bites 80 dB out of your path budget, putting your detector signal down to -140 dBm. I think your story just ran out of luck.

Now you can argue about the 40 dB shielding effectiveness of the metal wall, but I'll say that I was being very generous about that. At 10 GHz, I know (How? Easy, I do it everyday. Just 3 days ago, I was keeping some 1.3 GHz from radiating off of some cables, and it was common old Reynolds Wrap to the rescue.), I can get >100 dB out of a sheet of aluminum foil. The SE is so damn high from the material that the only significant factor is when the energy finds a path around the shield.

Don't try to argue that a Faraday cage leaks; you appear to be trying to build a general case based on your experience of always having observed leaky structures. Sure, I know that shielding varies with lots of factors, conductivity, permeability, thickness, frequency, angle of incidence, distance from source, and then there's the problem of apertures. But your hut, with plain old galvanized steel about 1/16" thick, would make a great shielded enclosure, as long as the joints didn't leak.

BTW, I don't like using the term "Faraday cage". Despite all due respect to Mr. Faraday, calling it a shielded enclosure is a clearer description.

Ed
wb6wsn

## 4220. Re: Antennas vs Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-27 12:48:09 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <33aereF3r34blU1@individual.net>
Source record: 84717

We all die. It is no tragedy.

"J. Teske" <jdteske@comcast.net> wrote in message
news:pgsts0d36ppcg2ditp1q3f06a6v4i7oees@4ax.com...
> On Sun, 26 Dec 2004 10:37:39 -0000, "Airy R. Bean" <me@privacy.net>
> wrote:
>
> >If he is dead, then he is not a candidate to remedy his
> >error by continued usage, is he?
>
> FYI, Dr. John Kraus died just this past year at a very venerable age.

# 4221. Re: Antennas vs Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-27 12:48:56 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <33aereF3r34blU2@individual.net>
Source record: 84718

Stupid Boy.
"KB7QHC" some form of Yank CB Licence, no doubt?

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:sh5us0tsavopdoqguvjfrrc13qq4e6ijvl@4ax.com...
> On Sun, 26 Dec 2004 10:36:43 -0000, "Airy R. Bean" <me@privacy.net>
> wrote:
> >So you cannot substantiate your assertion that
> >"Antenna/e" is originally a Greek word?
>
> That's been done. Look all you need do is drive north a dozen miles
> or so to confirm.

# 4222. Re: external antenna....

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-27 12:50:40 UTC
From: sipa <sipa@hrtv.net>
Message-ID: <cqp0fu$28g$1@ls219.htnet.hr>
Source record: 84719

"Richard Harrison" <richardharrison@webtv.net> wrote in message
news:3785-41CF7939-12@storefull-3255.bay.webtv.net...
> Sipa wrote:

> "I opened the receiver and see there is ferite with one coil of copper
> wire..."
>
> Wind your own antenna primary on the loopstick.Just a few turns should
> provide enough coupling without upsetting the circuit. Twist the antenna
> primary coil leads and route them outside the radio for antenna and
> ground connections.

thanx!

> Best regards, Richard Harrison, KB5WZI

73 de petko @ www.sibenik.hr

# 4223. TV antenna impedance measurements with MFJ-269.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-27 14:09:32 UTC
From: pdrunen@aol.com
Message-ID: <20041227090932.11389.00002980@mb-m29.aol.com>
Source record: 84720

Hi Group,

Have a MFJ-269 here (new toy) and did a bit of expermienting with the TV antenna over the Christmast weekend, I have one of those 13 element antenna from radio shack, I don't know the exact part number.

I tied the MFJ-269 into the 300 ohm to 75 ohm balun at the antenna. The antenna being about 20 feet up on the house peak.

Looking at the impedances I got, nothing really looked good at the TV frequencies as I would have expected.

If the match is this bad, I would expect alot of loss from the fact that I run 75 ohm cable down from this antenna to the TV set.

Could my reading be mis-leading since the balum is a 4:1 going from 300 ohm to 75 ohm?

Has anyone done this before and posted the data? I would be interested to see.

I don't have my data in front of me at this time so I don't have any measurements to post.

I really find the MFJ-269 an exceptional device for the antenna experimenter.

Tnx de KJ4UO

# 4224. Re: AM radio reception inside passenger planes?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-27 14:36:54 UTC
From: richardharrison@webtv.net
Message-ID: <3783-41D01E06-146@storefull-3255.bay.webtv.net>
Source record: 84721

Robert Baer wrote:
"So the only real performance variable left is the holes in the
conductive surface."

A plane window, like the fuselage itself, acts as apipe below cutoff
frequency. Minimum size for low attenuation is 1/2-wavelength.

The thicker the window frame, the longer the waveguide and the greater
the attenuation at frequencies below cutoff. See page 277 of
"Transmission Lines, Antennas, and Wave Guides" by King, Mimno, and Wing
to quantify the attenuation. It`s big below cutoff.

Best regards, Richard Harrison, KB5WZI

# 4225. Re: TV antenna impedance measurements with MFJ-269.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-27 15:55:14 UTC
From: W9DMK <w9dmk@crosslink.net>
Message-ID: <41d02f52.5504024@news.crosslink.net>
Source record: 84622

On 27 Dec 2004 14:09:32 GMT, pdrunen@aol.com (PDRUNEN) wrote:

>Hi Group,
>
>Have a MFJ-269 here (new toy) and did a bit of expermienting with the TV
>antenna over the Christmast weekend, I have one of those 13 element antenna
>from radio shack, I don't know the exact part number.
>
>I tied the MFJ-269 into the 300 ohm to 75 ohm balun at the antenna. The
>antenna being about 20 feet up on the house peak.
>
>Looking at the impedances I got, nothing really looked good at the TV
>frequencies as I would have expected.
>
>If the match is this bad, I would expect alot of loss from the fact that I run
>75 ohm cable down from this antenna to the TV set.
>
>Could my reading be mis-leading since the balum is a 4:1 going from 300 ohm to
>75 ohm?
>
>Has anyone done this before and posted the data? I would be interested to see.
>
>I don't have my data in front of me at this time so I don't have any
>measurements to post.
>
>I really find the MFJ-269 an exceptional device for the antenna experimenter.
>
>Tnx de KJ4UO

Dear KJ4UO,
You might look through the user's guide and check me on this, but is it not the case that the MFJ-269 is designed and calibrated for 50 ohms? If that is the case, as I think it is, then anything other than 50 ohms is going to look like it has high SWR. If you TV antenna is what it is supposed to be, then looking into the 300 ohm Xfrm would look like 300 + j0 (ideally) and if you look into the 75 ohm cable, instead, it would look like 75 + j0 (ideally). The SWR in those two cases would be 6 and 1.5, respectively and that's the BEST you would get.
Bob, W9DMK, Dahlgren, VA
http://www.qsl.net/w9dmk

# 4226. frequency of Mail Guard?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-27 16:30:52 UTC
From: zeb7k@hotmail.com
Message-ID: <1104165052.565825.110830@f14g2000cwb.googlegroups.com>
Source record: 84623

Hi, can anyone tell me the frequency of the Radio Shack model 63-1110
"Mail Guard"? I'd like to make a directional antenna for the
receiver. I've looked thru all the doc, nameplates and even asked
Radio Shack via email --nothing.

# 4227. Re: TV antenna impedance measurements with MFJ-269.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-27 16:36:26 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <tdKdnTP54eyep03cRVn-2g@comcast.com>
Source record: 84624

"PDRUNEN" <pdrunen@aol.com> wrote in message
news:20041227090932.11389.00002980@mb-m29.aol.com...
> Hi Group,
>
> Have a MFJ-269 here (new toy) and did a bit of expermienting with the TV
> antenna over the Christmast weekend, I have one of those 13 element
> antenna
> from radio shack, I don't know the exact part number.
>
> I tied the MFJ-269 into the 300 ohm to 75 ohm balun at the antenna. The
> antenna being about 20 feet up on the house peak.
>
> Looking at the impedances I got, nothing really looked good at the TV
> frequencies as I would have expected.
>
> If the match is this bad, I would expect alot of loss from the fact that I
> run
> 75 ohm cable down from this antenna to the TV set.
>
> Could my reading be mis-leading since the balum is a 4:1 going from 300
> ohm to
> 75 ohm?
>
> Has anyone done this before and posted the data? I would be interested to
> see.
>
> I don't have my data in front of me at this time so I don't have any
> measurements to post.
>
> I really find the MFJ-269 an exceptional device for the antenna
> experimenter.
>
> Tnx de KJ4UO
>
>
You will want to measure Z, not SWR. My offhand guess is that impedances
between 25 and 225 Ohms are about as good as you could expect. There will
probably be at least one frequency between channels2 & 6 and one between
channels 7 & 13 where you get some R + j0.

You might also want to put the MFJ in the mode where it displays parallel R
& X. It might show more of a trend.

The antenna not being 300 Ohms does not result in high SWR loss in the coax.
Your receiver not being 75/300 Ohms would. This is the inverse of the

transmitting case.

Tam/WB2TT

# 4228. Re: Antennas vs Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-27 16:58:58 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <fif0t0lg9ukm0kj6ocj1hgt7hporojdebr@4ax.com>
Source record: 84625

On Mon, 27 Dec 2004 12:48:56 -0000, "Airy R. Bean" <me@privacy.net>
wrote:
>Stupid Boy.
Ran of gas in those short dozen miles?

# 4229. Re: TV antenna impedance measurements with MFJ-269.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-27 17:12:59 UTC
From: Bob Miller <NOSPAMrmiller47@satx.rr.com>
Message-ID: <vbg0t0510rig5htuosp7koet355ho80b3h@4ax.com>
Source record: 84626

On Mon, 27 Dec 2004 15:55:14 GMT, W9DMK<w9dmk@crosslink.net> (Robert
Lay) wrote:

>On 27 Dec 2004 14:09:32 GMT, pdrunen@aol.com (PDRUNEN) wrote:
>
>>Hi Group,
>>
>>Have a MFJ-269 here (new toy) and did a bit of expermienting with the TV
>>antenna over the Christmast weekend, I have one of those 13 element antenna
>>from radio shack, I don't know the exact part number.
>>
>>I tied the MFJ-269 into the 300 ohm to 75 ohm balun at the antenna. The
>>antenna being about 20 feet up on the house peak.
>>
>>Looking at the impedances I got, nothing really looked good at the TV
>>frequencies as I would have expected.
>>
>>If the match is this bad, I would expect alot of loss from the fact that I run
>>75 ohm cable down from this antenna to the TV set.
>>
>>Could my reading be mis-leading since the balum is a 4:1 going from 300 ohm to
>>75 ohm?
>>
>>Has anyone done this before and posted the data? I would be interested to see.
>>
>>I don't have my data in front of me at this time so I don't have any
>>measurements to post.
>>
>>I really find the MFJ-269 an exceptional device for the antenna experimenter.
>>
>>Tnx de KJ4UO
>
>
>Dear KJ4UO,
>You might look through the user's guide and check me on this, but is
>it not the case that the MFJ-269 is designed and calibrated for 50
>ohms?

The 269 has an "Advanced 3" menu (page 30) that allows you to set the
SWR reference impedance to values other than 50 ohms, and measure
line loss and SWR in systems other than 50 ohms.

bob
k5qwg

> If that is the case, as I think it is, then anything other than
>50 ohms is going to look like it has high SWR. If you TV antenna is
>what it is supposed to be, then looking into the 300 ohm Xfrm would
>look like 300 + j0 (ideally) and if you look into the 75 ohm cable,
>instead, it would look like 75 + j0 (ideally). The SWR in those two
>cases would be 6 and 1.5, respectively and that's the BEST you would
>get.
>Bob, W9DMK, Dahlgren, VA
>http://www.qsl.net/w9dmk

## 4230. {©¿©} · A Love Gift For You! ·

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-27 17:19:21 UTC
From: aol12131@yahoo.com
Message-ID: <1104167961.357348.318510@f14g2000cwb.googlegroups.com>
Source record: 84627

{©¿©} www.gift.boxke.net <<

# 4231. Re: >>>DO NOT LISTEN TO PAYPAL POSTS<<<

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-27 17:23:09 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <32g0t0lcsjpavs967sdmnpf069k2j8q4bt@4ax.com>
Source record: 84628

On Mon, 27 Dec 2004 08:01:10 GMT, Matt<donotlisten@topaypalposts.com>
wrote:
>That is the best I can do for now. However a member of the computer crime dept will be in touch though as he feared I still may have commited other internet related crimes that I was not aware of.

Take some vaseline with you.

# 4232. Re: TV antenna impedance measurements with MFJ-269.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-27 17:26:57 UTC
From: Bill Turner <noway@nohow.com>
Message-ID: <MPG.1c39e5baa52d68b098968c@cnews.newsguy.com>
Source record: 84629

In article <20041227090932.11389.00002980@mb-m29.aol.com>,
pdrunen@aol.com says...
> Looking at the impedances I got, nothing really looked good at the TV
> frequencies as I would have expected.
>
> If the match is this bad, I would expect alot of loss from the fact that I run
> 75 ohm cable down from this antenna to the TV set.
>

---

The important thing with a TV antenna is broadband response across each
6 MHz channel. Signal loss can be made up with an amplifier mounted at
the antenna, but if there is severe impedance variation across a
channel, you will have a lot of ghosting in the picture. Some
frequencies will have a high SWR and others not, and that will cause
differing amounts of reflection across the band.

This same problem exists with TV transmitting antennas, and engineers go
to great lengths to make the response uniform.

--
Bill, W6WRT

# 4233. Re: TV antenna impedance measurements with MFJ-269.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-27 18:27:39 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <3hk0t0th9egpmtran0uepd2qgd16su7c25@4ax.com>
Source record: 84630

On Mon, 27 Dec 2004 09:26:57 -0800, Bill Turner <noway@nohow.com>
wrote:
>but if there is severe impedance variation across a
>channel, you will have a lot of ghosting in the picture

Hi Bill,

Actually, ghosting is path problem where two signals time lag
(reckoned by distance traveled by different paths - at least 100s of
meters if not km) present the viewer with two pictures.

The impedance variation gives rise to color distortion, smearing, due
to relative phase shift and/or BW clipping.

73's
Richard Clark, KB7QHC

# 4234. Re: TV antenna impedance measurements with MFJ-269.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-27 19:38:51 UTC
From: Bill Turner <noway@nohow.com>
Message-ID: <MPG.1c3a04a525fa402698968d@cnews.newsguy.com>
Source record: 84631

In article <3hk0t0th9egpmtran0uepd2qgd16su7c25@4ax.com>,
kb7qhc@comcast.net says...
>
> Actually, ghosting is path problem where two signals time lag
> (reckoned by distance traveled by different paths - at least 100s of
> meters if not km) present the viewer with two pictures.
>
> The impedance variation gives rise to color distortion, smearing, due
> to relative phase shift and/or BW clipping.
>
>

---

The "ghosting" I'm talking about is a very close-spaced ghost, perhaps
1/4 inch or less on the screen. It can definitely be caused by a poor
antenna. I used to install TV antennas for a living, trust me on that.

If you're talking about a ghost spaced several inches away on the
screen, then your statement above is correct.

--
Bill, W6WRT

# 4235. Re: TV antenna impedance measurements with MFJ-269.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-27 20:40:30 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <usq0t01qg9utdc28gr74vr212bo0k7jqte@4ax.com>
Source record: 84632

On Mon, 27 Dec 2004 11:38:51 -0800, Bill Turner <noway@nohow.com>
wrote:

>The "ghosting" I'm talking about is a very close-spaced ghost, perhaps
>1/4 inch or less on the screen. It can definitely be caused by a poor
>antenna. I used to install TV antennas for a living, trust me on that.

Hi Bill,

For the benefit of others, let's put this into perspective. The time
it takes to scan one line across the face of a TV screen, is 50ï¿½S
which from my Radar days would have been 5 Radar-Miles. As this is
TV, instead that scan line is 10 Miles long (for RF traveling at 5ï¿½S
per mile). All this math is going to be about 5-10% off:

If we take the TV screen to be a modern size of 30" diagonal - call it
25" across, then a ghost offset by one inch has its origins in a
reflection (somewhere) that increases the path length by 0.4 mile.
This, of course, presumes that the ghost is displaced horizontally
within the same scan line, and not offset by one vertical trace which
would add 12+ miles plus that 0.4 mile. Where did the extra 2+ miles
come from? Retrace time.

On occasion of poor coax shielding from the cable TV provider, I would
get leakage from strong local TV transmissions that would have ghosts
with huge offsets not only in time, but also picture content. It
would easily compute to 100s of miles path difference, but the lag
time (timed by jump-cuts) proved it was the difference between the
network feed and cable feed time (upwards to a second or two).

So, when we return to this ï¿½" ghost, for this particular TV set, the
dimension is 0.04 mile or about 200 feet. Sounds like a ringing line.

73's
Richard Clark, KB7QHC

# 4236. Re: Antennas vs Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-27 21:14:30 UTC
From: microwaves@blueyonder.co.uk
Message-ID: <41d07a1f.4685877@News.Individual.NET>
Source record: 84633

On Mon, 27 Dec 2004 16:58:58 GMT, Richard Clark <kb7qhc@comcast.net>
wrote:

>On Mon, 27 Dec 2004 12:48:56 -0000, "Airy R. Bean" <me@privacy.net>
>wrote:
>>Stupid Boy.
>Ran of gas in those short dozen miles?

Just ignore him (Airy) Richard ... the best thing is to kill file him
as most of us in the UK have already done. He's been posting in this
inflammatory manner for years.

By the way he is really Gareth Evans, G4SDW, of Chippenham, England.
With a name like that I guess he orginally hails from Wales, not
England so he can't really call himself an authority on the English
language!

If you follow this thread you'll see he will come back at me with one
of his highly predictable insulting phrases .. you wait!

The only time I know he's around is if others quote him in their posts
so please folks ... IGNORE HIM!

Peter, G3PHO

# 4237. Re: frequency of Mail Guard?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-27 21:54:07 UTC
From: Jacques <lesgranddish@yahoo.fr>
Message-ID: <1104184447.550641.221880@f14g2000cwb.googlegroups.com>
Source record: 84634

zeb7k@hotmail.com wrote:
> ...can anyone tell me the frequency
> of the Radio Shack model 63-1110
> "Mail Guard"?

Look up the FCC approval number (from the decal) on the FCC website.
Reportedly, this will tell you everything you might want to know (so
I've read). Maybe.
Obviously, it'll be one of the unlicensed frequencies like 433 MHz.

# 4238. Re: Antenna help needed - Thank you

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-27 22:00:00 UTC
From: Jerry <joxendi@bellsouth.net>
Message-ID: <vz%zd.3964$Nw1.3894@bignews3.bellsouth.net>
Source record: 84635

"Bert Craig" <wa2si@optonline.netNOSPAM> wrote in message
news:fWJzd.11055$WY2.5266@fe09.lga...
> "Jerry" <joxendi@bellsouth.net> wrote in message
> news:TmHzd.4353$ct2.3396@bignews5.bellsouth.net...
>> Why tan fer thar, mercy sakes thar, shore thang thar, I knowed hit was a
>> joke thar, gre't day, guaran'tole ye, sho' nuff. So kick hit back wid 10
>> pounds o' smoke thar, yore a-walkin' the dog, yessiree thar. An' this be
>> the OONNNNEE MoonDawgie in Nawth Ca'lina, we just got down!!"
>>
>> LMAO
>>
>> Sebney thirds thar!
>>
>> Jerry
>
> Jerry, Jerry, Jerry...
>
> You know I luv ya man, but...
>
> This thing with the stereotypical posts. Ah, the heck with it, hihi...
>
> Have a warm happy and healthy holiday season and a prosperous new year. I
> hope you sell a million Carolina Cyclones; Speaking of which, I'm running
> an Elecraft K1 4-bander (14, 20, 30 & 40) in the car and your CC might
> just be what the doctor ordered. Take care es...
>
> --
> Vy 73 de Bert
> WA2SI
> FISTS #9384
> QRP ARCI #11782
> ...and oh yeah, CBer ;-p <hihi>

What people don't get is that I usually only respond like that to trolls and joke posts. Sure, it *may* make some people mad, but heck if it doesn't apply to the posters why be upset over it? IOW, if they don't talk that way, then why would it make 'em mad? But then, OTH, all you gotta do is turn on the CB to hear that lingo 24/7.
;) LOL!

See ya, Bert es 73 !

J
>
>

# 4239. Re: Antenna help needed - Thank you

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-27 23:05:10 UTC
From: K4KWH <K4KWH@yahoo.com>
Message-ID: <33bivpF3uuf5nU1@individual.net>
Source record: 84636

Why tan fer thar, mercy sakes thar, shore thang thar, I knowed hit was a joke thar, gre't day, guaran'tole ye, sho' nuff. So kick hit back wid 10 pounds o' smoke thar, yore a-walkin' the dog, yessiree thar. An' this be the OONNNNEE MoonDawgie in Nawth Ca'lina, we just got down!!"

"Jerry" <joxendi@bellsouth.net> wrote in message
news:vz%zd.3964$Nw1.3894@bignews3.bellsouth.net...
>
> "Bert Craig" <wa2si@optonline.netNOSPAM> wrote in message
> news:fWJzd.11055$WY2.5266@fe09.lga...
>> "Jerry" <joxendi@bellsouth.net> wrote in message
>> news:TmHzd.4353$ct2.3396@bignews5.bellsouth.net...
>>> Why tan fer thar, mercy sakes thar, shore thang thar, I knowed hit was a
>>> joke thar, gre't day, guaran'tole ye, sho' nuff. So kick hit back wid
>>> 10 pounds o' smoke thar, yore a-walkin' the dog, yessiree thar. An'
>>> this be the OONNNNEE MoonDawgie in Nawth Ca'lina, we just got down!!"
>>>
>>> LMAO
>>>
>>> Sebney thirds thar!
>>>
>>> Jerry
>>
>> Jerry, Jerry, Jerry...
>>
>> You know I luv ya man, but...
>>
>> This thing with the stereotypical posts. Ah, the heck with it, hihi...
>>
>> Have a warm happy and healthy holiday season and a prosperous new year. I
>> hope you sell a million Carolina Cyclones; Speaking of which, I'm running
>> an Elecraft K1 4-bander (14, 20, 30 & 40) in the car and your CC might
>> just be what the doctor ordered. Take care es...
>>
>> --
>> Vy 73 de Bert
>> WA2SI
>> FISTS #9384
>> QRP ARCI #11782
>> ...and oh yeah, CBer ;-p <hihi>
>
> What people don't get is that I usually only respond like that to trolls
> and joke posts. Sure, it *may* make some people mad, but heck if it
> doesn't apply to the posters why be upset over it? IOW, if they don't talk

> that way, then why would it make 'em mad? But then, OTH, all you gotta do
> is turn on the CB to hear that lingo 24/7.
> ;) LOL!
>
> See ya, Bert es 73 !
>
> J
>>
>>
>
>

# 4240. Re: Modification of G5RV - need help on this

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-27 23:55:58 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41d0a126$1_2@127.0.0.1>
Source record: 84637

Reg Edwards wrote:
> Forget all about a G5RV. No sooner you modify it, it will no longer be a
> G5RV. It was designed to be useful with an easy impedance match only at
> 14.15 MHz

His is the 1/2 size G5RV, i.e. 51 feet total length, designed for
28 MHz. Terrible for 4 MHz operation.

> All you have to do, to obtain the best possible mutliband dipole for your
> back yard, is to erect a high dipole of any length which conveniently fits
> into your backyard, fed via a 450-ohm or 600-ohm transmission line, of no
> particular lemgth.

He wants to use his internal autotuner. Your idea won't work for that.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

# 4241. Re: TV antenna impedance measurements with MFJ-269.

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-28 00:12:05 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41d0a4ee$1_4@127.0.0.1>
Source record: 84638

Richard Clark wrote:
> So, when we return to this ï¿½" ghost, for this particular TV set, the
> dimension is 0.04 mile or about 200 feet. Sounds like a ringing line.

How does that fit with the state-of-the-art theory that standing-wave
energy doesn't travel end-to-end but instead sorta sloshes from side-
to-side between nodes?
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

# 4242. Re: Antennas vs Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-28 01:15:16 UTC
From: "J. Teske" <jdteske@comcast.net>
Message-ID: <drc1t0t44a3p2s98jeo242j8lr3q3j4pet@4ax.com>
Source record: 84639

On Mon, 27 Dec 2004 21:14:30 GMT, microwaves@blueyonder.co.uk (Peter)
wrote:

>On Mon, 27 Dec 2004 16:58:58 GMT, Richard Clark <kb7qhc@comcast.net>
>wrote:
>
>>On Mon, 27 Dec 2004 12:48:56 -0000, "Airy R. Bean" <me@privacy.net>
>>wrote:
>>>Stupid Boy.
>>Ran of gas in those short dozen miles?
>
>
>Just ignore him (Airy) Richard ... the best thing is to kill file him
>as most of us in the UK have already done. He's been posting in this
>inflammatory manner for years.
>
>By the way he is really Gareth Evans, G4SDW, of Chippenham, England.
>With a name like that I guess he orginally hails from Wales, not
>England so he can't really call himself an authority on the English
>language!
>
>If you follow this thread you'll see he will come back at me with one
>of his highly predictable insulting phrases .. you wait!
>
>The only time I know he's around is if others quote him in their posts
>so please folks ... IGNORE HIM!

He certainly infuriated me. what a childish twit.
>
>
>Peter, G3PHO

# 4243. Re: Modification of G5RV - need help on this

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-28 01:24:46 UTC
From: Ralph Mowery <rmowery28146@earthlink.net>
Message-ID: <yB2Ad.5044$qf5.2267@newsread3.news.atl.earthlink.net>
Source record: 84640

<none@none.com> wrote in message
news:g97rs05mcn3ecvacruajmuqtjbf0705fn8@4ax.com...
> I am using a G5RV and an Icom 756Pro II. The auto antenna tuner will
> tune the antenna fine except in the area of 3963.5 and up to at least
> 4.0385. I use 4.0385 as a member of MARS. Right now my SWR "as
> shown" is well into the "red zone".
>
> Is there any way to modify the antenna to get it to be a better match
> so that the auto tuner can do its thing. The antenna is the shortened
> or Jr. version with a ladder wire lead in.
>
The Jr. version it too short to use much below 7 mhz. with a SWR the
internal tuner will match. Double the length of the legs for about 100 feet
overall. Beter yet , extend it to about 130 feet overall. You probably
would do beter to hook the wires together and use it as a single feed wire
and hook the other side of the rig to a good ground.

# 4244. Re: Loop vx Folded Dipole noise factor

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-28 01:56:24 UTC
From: Ed <Huckleberry_REMOVE_@bigvalley.net>
Message-ID: <Xns95CCB69EC593Dspectrumhogstarbandn@207.106.93.175>
Source record: 84641

> 
> You got some interesting discussion, but I wonder if any actually
> heard the question. Unfortunately, the question is incomplete, and
> this often leads to answers to questions you never asked. What
> particular kind of noise do you characterize?
> 

My thanks to all for responses to my quetion. And my somewhat belated response to the comment (above): I guess I must be somewhat ambiguous in reference to the low noise of a loop. I have always heard that proper loop antennas had a lower noise characteristic than other open ended antennas. The type of noise in question, I don't know. I suspect at my locations I have a combination of man made and atmospheric noises being received at my presesnt dipole.

Since I intend to build a new antenna, and since I am now forced to consider the construction of a folded dipole in lieu of the more difficult to erect loop, that was the reason for my original question.

I have two nice 100'+ trees between which it would be quite easy to install a dipole..... whether it be folded or standard depends on the comments I receive from you guys on the low noise characteristic I am questioning.

Ed K7AAT

# 4245. Re: AM aerial problem

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-28 02:15:08 UTC
From: CW <cmagers@earthlink.net>
Message-ID: <QMqdnaQru8zSXE3cRVn-pA@comcast.com>
Source record: 84642

OK. The Select-A-Tenna is nothing more than a coil of wire and a capacitor. Do a Google search on medium wave loop. AM loop, ect. There are lots of plans out there. Yes, they really do make a dramatic difference.

"David Flew" <dgf3@labyrinth.net.au> wrote in message news:cqoi21$2g00$1@arachne.labyrinth.net.au...
> Jim and others. I've played around with ADSL modem location, orientation
> etc, and whilst it's the cause of the noise, it's the low signal strength at
> the radio which is what I have to fix. If the radio is right next to (
> inches) the modem, and is oriented optimally, the interference is minimal.
>
> I'd hoped for a home grown rather than a commercial solution - but my AM
> aerial knowledge faded once I stopped playing with crystal sets and battery
> powered valve radios some decades ago. Also CCrane isn't well represented
> in the antipodes.
>
> David
>
> "CW" <cmagers@earthlink.net> wrote in message
> news:2KudnaSW-ejM5VLcRVn-uQ@comcast.com...
> > Do a Google search on CCrane. They sell a couple of antennas that should
> > help you out. One is the Select-A-Tenna. It is a loop such as Jim referred
> > to. It works quite well. Improves reception dramatically and is
> directional
> > with good nulls to kill the noise. The second mounts outside and runs into
> > the radio via cable. There is a ferrite bar that attaches to the radio so
> no
> > connection required.
> >
> > "Jim" <IHateSpam@NoSpam.net> wrote in message
> > news:GYBzd.1574$3f3.1093@fe39.usenetserver.com...
> > > I say it is worth the try.
> > >
> > > The interference may not be directly from the DSL modem itself, but
> > leaking
> > > from the cables. If I recall correctly, the DSL signal (at least here
> in
> > > the USA) is a couple of watts somewhere aorund the AM broadcast band.
> So

> > > you essentially have a 2 watt transmitter pumping out wide-band trash
> > within
> > > a few meters of your receiver.
> > >
> > > There used to be a 'AM signal booster' available. All it consisted of
> was
> > a
> > > coil of wire about 8 inches in diameter witha variable capacitor for
> > > tuning. You just placed it next to your AM radio and the coil coupled
> > into
> > > the built-in loopstick antenna.
> > >
> > > Jim
> > > N8EE
> > >
> > >
> > >
> >
> >
>
>

# 4246. Re: Antennas vs Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-28 02:44:37 UTC
From: richardharrison@webtv.net
Message-ID: <14548-41D0C895-214@storefull-3254.bay.webtv.net>
Source record: 84643

Airy R. Bean wrote:
"Those who are ignorant about the English Language and its etymology, especially the Yanks and nerdy types, have introduced the erroneous plural, "Antennas"."

Many words are rooted in formerly used languages. Today`s languages are determined by common usage.

John D. Kraus, Ph.D., W8JK was one of the world`s foremost radio antenna authorities. On page one of his 1950 edition of "Antennas" his first sentence is:
"A radio antenna may be defined as the structure associated with the region of transition between a guided wave and a free-space wave, or vice versa." The footnote to this sentence defines "antenna" in its zoological sense.

Note the book`s title is "Antennas". Kraus notes that in England the usage makes no distinction and that both insect and radio antennas are "antennae" in the plural. In the U.S. it`s antennae for the insects and it`s antennas for radios.

Webster created a U.S. dictionary due to independent usage of the English Language in the U.S.. It is a continuation of U.S. rebellion just as was the switch from tea to coffee. Experimentation finds converts on both sides of the ocean.

If "Antennas" is good enough for Kraus, it is surely good enough for me.

Best regards, Richard Harrison, KB5WZI

# 4247. Re: {©¿©} · A Love Gift For You! ·

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-28 02:47:08 UTC
From: aol12131@yahoo.com
Message-ID: <8451170276.420276.362864@f14g2000cwb.googlegroups.com>
Source record: 84646

delicacy.
The sandwich originated in New Orleans, where an abundance of abortion clinics
thrive and hot French bread is always available.

2 cleaned fetuses, head on
2 eggs
1 tablespoon yellow mustard
1 cup seasoned flour
oil enough for deep frying
1 loaf French bread
Lettuce
tomatoes
mayonnaise, etc.

Marinate the fetuses in the egg-mustard mixture.
Dredge thoroughly in flour.
Fry at 375° until crispy golden brown.
Remove and place on paper towels.

Holiday Youngster

One can easily adapt this recipe to ham, though as presented,
it violates no religious taboos against swine.

1 large toddler or small child, cleaned and de-headed
Kentucky Bourbon Sauce (see index)
1 large can pineapple slices
Whole cloves

Place him (or ham) or her in a large glass baking dish, buttocks up.
Tie with butcher string around and across so that he looks like
he?s crawling.
Glaze, then arrange pineapples and secure with cloves.
Bake uncovered in 350° oven till thermometer reaches 160°.

Cajun Babies

Just like crabs or crawfish, babies are boiled alive!
You don?t need silverware, the hot spicy meat comes off in your hands.

6 live babies
1 lb. smoked sausage
4 lemons
whole garlic
2 lb. new potatoes
4 ears corn
1 box salt

crab boil

Bring 3 gallons of water to a boil.
Add sausage, salt, crab boil, lemons and garlic.
Drop potatoes in, boil for 4 minutes.
Corn is added next, boil an additional 11 minutes.
Put the live babies into the boiling water and cover.
Boil till meat comes off easily with a fork.

Oven-Baked Baby-Back Ribs

Beef ribs or pork ribs can be used in this recipe,
and that is exactly what your dinner guests will assume!
An excellent way to expose the uninitiated to this highly misunderstood
yet succulent source of protein.

2 human baby rib racks
3 cups barbecue sauce or honey glaze (see index)
Salt
black pepper
white pepper
paprika

Remove the silverskin by loosening from the edges,

# 4248. Re: Loop vx Folded Dipole noise factor

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-28 03:20:18 UTC
From: Jack Painter <223bthp@cox.net>
Message-ID: <Rh4Ad.26013$7p.17433@lakeread02>
Source record: 84644

"Ed" <Huckleberry_REMOVE_@bigvalley.net> wrote

> I have two nice 100'+ trees between which it would be quite easy to
> install a dipole..... whether it be folded or standard depends on the
> comments I receive from you guys on the low noise characteristic I am
> questioning.
>
> Ed K7AAT

Ed. if you let the ends of the dipole be the high points and avoid the inverted-vee (skip the temptation for a little wider bandwidth of the vee, it comes at some expense of optimum dipole performance and low noise of a real dipole) you should be very happy with new antenna. I too use nearly 100' trees and achieve between 1/4~ and 1/2~ elevation for the 60-70 meter bandwidth. I stopped at that height only because it was a point at which the tree trunks exhibited very little movement. With a 125' span between them, that was important! Higher would be better, but probably not survive high winds either. 3/16" milspec dacron holds a balun (supported only from both ends), the antenna copper, and all 60-odd feet of RG-8X feedline under it with no problem. I use kevlar standing rigging to hold the blocks of the running rigging for this antenna. This allows more flexibility than if the main horizontal support line made a bight over each tree limb at its two ends. It has survived two hurricanes, many Nor'Easters and a lot of ice as well. Not too many locales have all those extremes ;-)

73,
Jack Painter
Virginia Beach, Virginia

# 4249. Re: Kenwood TS-870 Station

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-28 03:40:59 UTC
From: caskamite@hotmail.com
Message-ID: <fyfee1$d28$5@newsg4.svr.pol.co.uk>
Source record: 84649
Cross-posted to: alt.ham-radio.marketplace,rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.misc

Tie with butcher string around and across so that he looks like
he?s crawling.
Glaze, then arrange pineapples and secure with cloves.
Bake uncovered in 350° oven till thermometer reaches 160°.

Cajun Babies

Just like crabs or crawfish, babies are boiled alive!
You don?t need silverware, the hot spicy meat comes off in your hands.

6 live babies
1 lb. smoked sausage
4 lemons
whole garlic
2 lb. new potatoes
4 ears corn
1 box salt
crab boil

Bring 3 gallons of water to a boil.
Add sausage, salt, crab boil, lemons and garlic.
Drop potatoes in, boil for 4 minutes.
Corn is added next, boil an additional 11 minutes.
Put the live babies into the boiling water and cover.
Boil till meat comes off easily with a fork.

Oven-Baked Baby-Back Ribs

Beef ribs or pork ribs can be used in this recipe,
and that is exactly what your dinner guests will assume!
An excellent way to expose the uninitiated to this highly misunderstood
yet succulent source of protein.

2 human baby rib racks
3 cups barbecue sauce or honey glaze (see index)
Salt
black pepper
white pepper
paprika

Remove the silverskin by loosening from the edges,
then stripping off.
Season generously, rubbing the mixture into the baby?s flesh.
Place 1 quart water in a baking pan, the meat on a wire rack.
Bake uncovered in 250° oven for 1° hours.

When browned, remove and glaze,
return to oven and bake 20 minutes more to form a glaze.
Cut ribs into individual pieces and serve with extra sauce.

Fresh Sausage

If it becomes necessary to hide the fact that you are eating
human babies, this is the perfect solution.
But if you are still paranoid, you can substitute pork butt.

5 lb. lean chuck roast
3 lb. prime baby butt
2 tablespoons each:
salt
black, white and cayenne peppers
celery salt
garlic powder
parsley flakes
brown sugar
1 teaspoon sage
2 onions
6 cloves garlic
b

# 4250. Re: Kenwood TS-870 Station

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-28 04:16:05 UTC
From: caskamite@hotmail.com
Message-ID: <evvef3$f45%3@newsg4.svr.pol.co.uk>
Source record: 84650
Cross-posted to: alt.ham-radio.marketplace,rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.misc

perhaps)
1 inch cubes of tender meat, preferably from the nursery
Onions
bell peppers
Wooden or metal skewers

Marinate the meat overnight.
Get the grill good and hot while placing meat, vegetables, and
fruit such as pineapples or cherries on the skewers.
Don?t be afraid to use a variety of meats.
Grill to medium rare,
serve with garlic cous-cous and saut&#65533;ed asparagus.
Coffee and sherbet for desert then walnuts, cheese, and port.
Cigars for the gentlemen (and ladies if they so desire)!

Crock-Pot Crack Baby

When the quivering, hopelessly addicted crack baby succumbs to death,
get him immediately butchered and into the crock-pot, so that any
remaining toxins will not be fatal. But don?t cook it too long,
because like Blowfish, there is a perfect medium between the poisonous
and the stimulating. Though it may not have the same effect on your
guests, a whole chicken cooked in this fashion is also mighty tasty.

1 newborn - cocaine addicted, freshly expired, cleaned and butchered
Carrots
on

# 4251. Re: giant ham radio & electronic surplus swap meet

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-28 05:22:05 UTC
From: webberdog@webtv.net
Message-ID: <6015%07BB862B-407@storefull-3335.bay.webtv.net>
Source record: 84648

salt pepper, etc.
Olive oil
butter

Brown the meat and some chopped onions, peppers, and garilic in olive oil,
place in baking dish, layer with vegetables seasoning and butter.
Bake at 325° for 30 - 45 minutes.
Serve with hot dinner rolls, fruit salad and sparkling water.

B°b° Buffet 1

Show off with whole roasted children replete with apples in mouths -
and babies? heads stuffed with wild rice. Or keep it simple with a
hearty main course such as stew, lasagna, or meat loaf.

Some suggestions

Pre-mie pot pies, beef stew, leg of lamb, stuffed chicken, roast pork spiral ham,
Cranberry pineapple salad, sweet potatoes in butter, vegetable platter, tossed salad with
tomato and avocado, parsley new potatoes, spinich cucumber salad, fruit salad
Bran muffins, dinner rolls, soft breadsticks, rice pilaf, croissants
Apple cake with rum sauce, frosted banana nut bread sherbet, home made brownies
Iced tea, water, beer, bloody marys, lemonade, coffee

The guests select food, beverages, silverwar

# 4252. Re: AM radio reception inside passenger planes?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-28 05:23:35 UTC
From: Robert Baer <robertbaer@earthlink.net>
Message-ID: <26BCB513.4426CAFC@earthlink.net>
Source record: 84647
Cross-posted to: rec.travel.air,rec.radio.amateur.antenna,sci.electronics.equipment

8 large cabbage leaves
1 lb. lean ground newborn human filets, or ground chuck
Onions
peppers
celery
garlic
soy sauce
salt pepper, etc
Olive oil
breadcrumbs
Tomato Gravy (see index)

Boil the cabbage leaves for 2 minutes to soften.
In skillet, brown the meat in a little olive oil,
then add onions, peppers, and celery (all chopped finely)
and season well.
Place in a large bowl and cool.
Add seasoned breadcrumbs and a little of the tomato gravy,
enough to make the mixture pliable.
Divide the stuffing among the cabbage leaves then roll.
Place seam down in a baking pan.
Ladle tomato gravy on top,
and bake at 325&#65533; for 30 - 45 minutes.

Umbilical Cordon Bleu

Nothing is so beautiful as the bond between mother and child,
so why not consume it?
Children or chicken breasts will work wonderfully also.

4 whole umbilical chords (or baby breasts, or chicken breasts)
4 thin slices of smoked ham, and Gruyere cheese
Flour
eggwash (milk and eggs)
seasoned bread crumbs
1 onion
minced
salt
pepper
butter
olive oil

Pound the breasts flat (parboil first if using umbilical
cords so they won?t be tough).

Place a slice of ham and cheese on each, along with some minced onion
then fold in half, trimming neatly.
Dredge in flour, eggwash, then seasoned breadcrumbs;
allow to sit for a few minutes.
Saut&#65533; in butter and olive oil until golden brown,
about 6 minutes on each side.

Shish Kababes

As old as the hills, this technique has employed seafood, beef, pork, lamb, poultry, and vegetables; just about anything can be grilled, and young humans are no exception!

High quality marinade (Teriyaki and garlic perhaps)
1 inch cubes of tender meat, preferably from the nursery
Onions
bell peppers
Wooden or metal skewers

Marinate the meat overnight.
Get the grill good and hot while placing meat, veget

# 4253. Free quick easy money Amazing !!!!!!!!!!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-28 06:12:24 UTC
From: dl1618@hotmail.com
Message-ID: <1104214344.651904.273810@z14g2000cwz.googlegroups.com>
Source record: 84645

Free quick easy money Amazing !!!!!!!!!!!!
Date: 22 Dec 04

Comments

HOW TO TURN $6 INTO $6,000!!!!!! READING THIS COULD CHANGE YOUR LIFE!
I

found this on a bulletin board and decided to try it. A little while
back, I was

browsing through newsgroups, just like you are now, and came across an
article

similar to this that said you could make thousands of dollars within
weeks with

only an initial investment of $6.00! So I thought, Yeah right, this
must be a

scam,but like most of us, I was curious, so I kept reading. Anyway, it
said that

you send $1.00 to each of the 6 names and address stated in the
article. You then

place your own name and address in the bottom of the list at #6, and
post the

article in at least 200 newsgroups. (There are thousands) No catch,
that was it.

So after thinking it over, and talking to a few people first, I thought
about

trying it. I figured: what have I got to lose except 6 stamps and
$6.00, right?

Then I invested the measly $6.00. Well GUESS WHAT!!... within 7 days, I
started

getting money in the mail! I was shocked! I figured it would end soon,
but the

money just kept coming in. In my first week, I made about $25.00. By
the end of

the second week I had made a total of over $1,000.00! In the third week
I had

over $10,000.00 and it's still growing. This is now my fourth week and I have

made a total of just over $42,000.00 and it's still coming in rapidly. It's

certainly worth $6.00, and 6 stamps, I have spent more than that on the lottery!!

Let me tell you how this works and most importantly, why it works....Also, make

sure you print a copy of this article NOW, so you can get the information off of

it as you need it. I promise you that if you follow the directions exactly, that

you will start making more money than you thought possible by doing something so

easy! Suggestion: Read this entire message carefully! (print it out or download

it.) Follow the simple directions and watch the money come in! It's easy. It's

legal. And, your investment is only $6.00 (Plus postage) IMPORTANT: This is not a

rip-off; it is not indecent; it is not illegal; and it is virtually no risk - it

really works!!!! If all of the following instructions are adhered to, you will

receive extraordinary dividends. PLEASE NOTE: Please follow these directions

EXACTLY, and $50,000 or more can be yours in 20 to 60 days. This program remains

successful because of the honesty and integrity of the participants. Please

continue its success by carefully adhering to the instructions. You will now

become part of the Mail Order business. In this business your product is not

solid and tangible, it's a service. You are in the business of developing Mailing

Lists. Many large corporations are happy to pay big bucks for quality lists.

However, the money made from the mailing lists is secondary to the income which

is made from people like you and me asking to be included in that list. Here are

the 4 easy steps to success: STEP 1: Get 6 separate pieces of paper and write the

following on each piece of paper;PLEASE PUT ME ON YOUR MAILING LIST. Now get 6 US

$1.00 bills and place ONE inside EACH of the 6 pieces of paper so the bill will

not be seen through the envelope (to prevent thievery). Next, place one paper in

each of the 6 envelopes and seal them. You should now have 6 sealed envelopes,

each with a piece of paper stating the above phrase, your name and address, and a

$1.00 bill. What you are doing is creating a service. THIS IS ABSOLUTELY LEGAL!

You are requesting a legitimate service and you are paying for it! Like most of

us I was a little skeptical and a little worried about the legal aspects of it

all. So I checked it out with the U.S. Post Office (1-800-725-2161) and they

confirmed that it is indeed legal! Mail the 6 envelopes to the following

addresses:

#1)Randall Hines 22 Stature Dr. Newark
DE 19713

#2) Mike Sharrer 921 West State St. Coopersburg PA 18036

#3) Jeffrey Hyun 17414Stark Ave Cerritos,CA 90703

#4) James Adair the third 22 Over Rd. Feasterville PA 19053

#5) TSR Solutions 15907 Golden Eye CT Parker CO 80134

#6) Daryl L. 6063 Roosevelt Blvd Apt# 216 Philadelphia PA 19149

STEP 2: Now take the #1 name off the list that you see above, move the other

names up (6 becomes 5, 5 becomes 4, etc...) and add YOUR Name as number 6 on the

list. STEP 3: Change anything you need to, but try to keep this article as close

to original as possible. Now, post your amended article to at least 200

newsgroups. (I think there are close to 24,000 groups) All you need is 200, but

remember, the more you post, the more money you make! This is perfectly legal! If

you have any doubts, refer to Title 18 Sec. 1302 & 1341 of the Postal lottery

laws. Keep a copy of these steps for yourself and, whenever you need money, you

can use it again, and again. PLEASE REMEMBER that this program remains successful

because of the honesty and integrity of the participants and by their carefully

adhering to the directions. Look at it this way. If you are of integrity, the

program will continue and the money that so many others have received will come

your way. NOTE: You may want to retain every name and address sent to you, either

on a computer or hard copy and keep the notes people send you. This VERIFIES that

you are truly providing a service. (Also, it might be a good idea to wrap the $1

bill in dark paper to reduce the risk of mail theft.) So, as each post is

downloaded and the directions carefully followed, six members will be reimbursed

for their participation as a List Developer with one dollar each. Your name will

move up the list geometrically so that when your name reaches the #1 position you

will be receiving thousands of dollars in CASH!!! What an opportunity for only

$6.00 ($1.00 for each of the first six people listed above) Send it now, add your

own name to the list and you're in business! ---DIRECTIONS ----- FOR HOW TO POST

TO NEWSGROUPS---------- Step 1) You do not need to re-type this entire letter

to do your own posting. Simply put your cursor at the beginning of this letter

and drag your cursor to the bottom of this document, and select 'copy' from the

edit menu. This will copy the entire letter into the computer's memory. Step 2)

Open a blank 'notepad' file and place your cursor at the top of the blank page.

>From the 'edit' menu select 'paste'. This will paste a copy of the letter into

notepad so that you can add your name to the list. Step 3) Save your new notepad

file as a .txt file. If you want to do your postings in different settings,

you'll always have this file to go back to. Step 4) Use Netscape or Internet

explorer and try searching for various newsgroups (on-line forums, message

boards, chat sites, discussions.) Step 5) Visit these message boards and post

this article as a new message by highlighting the text of this letter and

selecting paste from the edit menu. Fill in the Subject, this will be the header

that everyone sees as they scroll through the list of postings in a particular

group, click the post message button. You're done with your first one!

Congratulations...THAT'S IT! All you have to do is jump to different newsgroups

and post away, after you get the hang of it, it will take about 30 seconds for

each newsgroup! **REMEMBER, THE MORE NEWSGROUPS YOU POST IN, THE MORE MONEY YOU

WILL MAKE!! BUT YOU HAVE TO POST A MINIMUM OF 200** That's it! You will begin

receiving money from around the world within days! You may eventually want to

rent a P.O.Box due to the large amount of mail you will receive. If you wish to

stay anonymous, you can invent a name to use, as long as the postman will deliver

it. **JUST MAKE SURE ALL THE ADDRESSES ARE CORRECT.** Now the WHY part: Out of

200 postings, say I receive only 5 replies (a very low example). So then I made

$5.00 with my name at #6 on the letter. Now, each of the 5 persons who just sent

me $1.00 make the MINIMUM 200 postings, each with my name at #5 and only 5

persons respond to each of the original 5, that is another $25.00 for me, now

those 25 each make 200 MINIMUM posts with my name at #4 and only 5 replies each,

I will bring in an additional $125.00! Now, those 125 persons turn around and

post the MINIMUM 200 with my name at #3 and only receive 5 replies each, I will

make an additional $626.00! OK, now here is the fun part, each of those 625

persons post a MINIMUM 200 letters with my name at #2 and they each only receive

5 replies, that just made me $3,125.00!!! Those 3,125 persons will all deliver

this message to 200 newsgroups with my name at #1 and if still 5 persons per 200

newsgroups react I will receive $15,625,00! With an original investment of only

$6.00! AMAZING! When your name is no longer on the list, you just take the latest

posting in the newsgroups, and send out another $6.00 to names on the list,

putting your name at number 6 again. And start posting again. The thing to

remember is: do you realize that thousands of people all over the world are

joining the internet and reading these articles everyday?, JUST LIKE YOU are

now!! So, can you afford $6.00 and see if it really works?? I think so... People

have said, &quote;what if the plan is played out and no one sends you the money?

So what! What are the chances of that happening when there are tons of new honest

users and new honest people who are joining the internet and newsgroups everyday

and are willing to give it a try? Estimates are at 20,000 to 50,000 new users,

every day, with thousands of those joining the actual internet. Remember: play

FAIRLY and HONESTLY and this will really work.

# 4254. Re: For Sale: Kenwood TS-870 Station

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-28 07:07:11 UTC
From: laborkei <laborkeiNOSPAM@hotmail.com>
Message-ID: <pYfof.87416%aD.60480@bignews3.bellsouth.net>
Source record: 84654
Cross-posted to: alt.ham-radio.marketplace,rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.swap

of abortion clinics
thrive and hot French bread is always available.

2 cleaned fetuses, head on
2 eggs
1 tablespoon yellow mustard
1 cup seasoned flour
oil enough for deep frying
1 loaf French bread
Lettuce
tomatoes
mayonnaise, etc.

Marinate the fetuses in the egg-mustard mixture.
Dredge thoroughly in flour.
Fry at 375° until crispy golden brown.
Remove and place on paper towels.

Holiday Youngster

One can easily adapt this recipe to ham, though as presented,
it violates no religious taboos against swine.

1 large toddler or small child, cleaned and de-headed
Kentucky Bourbon Sauce (see index)
1 large can pineapple slices
Whole cloves

Place him (or ham) or her in a large glass baking dish, buttocks up.
Tie with butcher string around and across so that he looks like
he?s crawling.
Glaze, then arrange pineapples and secure with cloves.
Bake uncovered in 350° oven till thermometer reaches 160°.

Cajun Babies

Just like crabs or crawfish, babies are boiled alive!
You don?t need silverware, the hot spicy meat comes off in your hands.

6 live babies
1 lb. smoked sausage
4 lemons
whole garlic
2 lb. new potatoes
4 ears corn

1 box salt
crab boil

Bring 3 gallons of water to a boil.
Add sausage, salt, crab boil, lemons and garlic.
Drop potatoes in, boil for 4 minutes.
Corn is added next, boil an additional 11 minutes.
Put the live babies into the boiling water and cover.
Boil till meat comes off easily with a fork.

Oven-Baked Baby-Back Ribs

Beef ribs or pork ribs can be used in this recipe,
and that is exactly what your dinner guests will assume!
An excellent way to expose the uninitiated to this highly misunderstood
yet succulent source of protein.

2 human baby rib racks
3 cups barbecue sauce or honey glaze (see index)
Salt
black pepper
white pepper
paprika

R

# 4255. G5RV Too Short for 80 Meters ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-28 07:36:11 UTC
From: Gary
Message-ID: <5q22t09hgsse4mmghq5m0vmmvt62lmb6hi@4ax.com>
Source record: 84651

I've looked at some commercial "full size" G5RV's and the leg lengths are about 51 feet long each, that seems a tad short for 80 meters. Would I experience quite a bit of loss in the tuner ( External ) Or maybe I should try and erect a dipole with leg lengths as long as I can and feed it with 450 Ohm Ladder line or 300 Ohm twinlead and be able to operate on 30 meters ? I understand the G5RV doesn't work too well for 30 meters, and I need some place to operate during contests. My primary bands of interests are 80 thru 20 CW.

Thanks in advance.

Gary K8IQ

# 4256. Re: Antennas vs Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-28 08:52:52 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <er4oa6befybtfnubiiubffd17rz6f6iutd@4ax.com>
Source record: 84653

in mouths -
and babies? heads stuffed with wild rice. Or keep it simple with a
hearty main course such as stew, lasagna, or meat loaf.

Some suggestions

Pre-mie pot pies, beef stew, leg of lamb, stuffed chicken, roast pork spiral ham,
Cranberry pineapple salad, sweet potatoes in butter, vegetable platter, tossed salad with
tomato and avocado, parsley new potatoes, spinich cucumber salad, fruit salad
Bran muffins, dinner rolls, soft breadsticks, rice pilaf, croissants
Apple cake with rum sauce, frosted banana nut bread sherbet, home made brownies
Iced tea, water, beer, bloody marys, lemonade, coffee

The guests select food, beverages, silverware... everything from the buffet table.
They move to wherever they are comfortable, and sit with whoever they choose.
Provide trays so your guests will not spill everything all over your house from
carrying too much, nor will they have to make 10 trips back and fourth from the
service stations.

Roast Leg of Amputee

By all means, substitute lamb or a good beef roast if the haunch
it is in

# 4257. Re: AM radio reception inside passenger planes?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-28 09:39:52 UTC
From: Robert Baer <robertbaer@earthlink.net>
Message-ID: <41D129E1.D61AE5D9@earthlink.net>
Source record: 84652
Cross-posted to: rec.travel.air,rec.radio.amateur.antenna,sci.electronics.equipment

```
Ed Price wrote:
>
> "Robert Baer" <robertbaer@earthlink.net> wrote in message
> news:41CFC544.53731880@earthlink.net...
> > Ed Price wrote:
> >>
> >> "Robert Baer" <robertbaer@earthlink.net> wrote in message
> >> news:41CE87D3.1FF10F26@earthlink.net...
> >> > Ed Price wrote:
> >> >>
> >> >> "Watson A.Name - "Watt Sun, the Dark Remover"" <NOSPAM@dslextreme.com>
> >> >> wrote
> >> >> in message news:10soh0lbeei8o20@corp.supernews.com...
> >> >> >
> >> >> > "Some Guy" <Some@guy.com> wrote in message
> >> >> > news:41BB8C6A.FD42C1E7@guy.com...
> >> >> >> What a load of horse shit.
> >> >> >
> >> >> >> You guys are acting as if the engines and flight control surfaces
> >> >> >> of
> >> >> >> an aircraft are intimately tied to the plane's radio receiver, and
> >> >> >> the
> >> >> >> slightest odd or out-of-place signal that it receives is enough to
> >> >> >> send any plane into a tail spin.
> >> >> >
> >> >> > No, the laws say that you can be arrested for breaking them, and one
> >> >> > way
> >> >> > to break them is to use a FM radio while the aircraft is flying.
> >> >> >
> >> >> >> All this while the air travel industry is considering allowing
> >> >> >> passengers to use their own cell phones WHILE THE PLANES ARE IN
> >> >> >> FLIGHT
> >> >> >> by adding cell-phone relay stations to the planes and allowing any
> >> >> >> such calls to be completed via satellite. So I guess the feeble
> >> >> >> radiation by my FM radio (powered by 2 AAA batteries) is enough to
> >> >> >> cause a plane to dive into the ocean, but the guy next to me
> >> >> >> putting
> >> >> >> out 3 watts of near-microwave energy is totally safe.
> >> >> >
> >> >> > You don't know what you're talking about. With the attitudes of the
> >> >> > air
> >> >> > marshals nowadays, making airliners turn around and go back to their
> >> >> > departure point just because a passenger is unruly, there is a high
```

> >> >> > probability that one of them is flying along on your flight, and if
> >> >> > he
> >> >> > sees an earphone hanging out of your ear, you might be that unruly
> >> >> > passenger they arrest at the departure point. Especially with your
> >> >> > nasty attitude!
> >> >> >
> >> >> >> What about my hand-held GPS unit? Any chance me using it (during
> >> >> >> all
> >> >> >> phases of a flight, which I do routinely) will result in a one-way
> >> >> >> ticket to kingdom come?
> >> >> >
> >> >> > Geez, what a TWERP! You can't add two and two without jumping to
> >> >> > conclusions! A rational conversation with you is nearly impossible.
> >> >> >
> >> >> >> Getting back to the original question (poor to non-existant AM
> >> >> >> reception), I understand the idea of aperature and long wavelenths
> >> >> >> of
> >> >> >> AM radio and the size of airplane windows - but what about the
> >> >> >> effect
> >> >> >> of ALL the windows on a plane? Don't they create a much larger
> >> >> >> effective apperature when you consider all of them? And since the
> >> >> >> plane isin't grounded, isin't the exterior shell of a plane
> >> >> >> essentially transparent to all RF (ie it's just a re-radiator)
> >> >> >> because
> >> >> >> it's not at ground potential?
> >> >> >
> >> >> > You're even dumber than I had thought. Look up Faraday Shield.
> >> >> > Here, try this:
> >> >> > http://www.physlink.com/Education/AskExperts/ae176.cfm
> >> >> > You don't have to worry about a ground for it to work. Duh.
> >> >> >
> >> >>
> >> >> He's not dumber than "I" thought!
> >> >>
> >> >> Ed
> >> >> wb6wsn
> >> >
> >> > "Faraday shield" to some degree is a myth.
> >> > I have seen radars inside quonset huts track a *bird* flying a few
> >> > miles away (thru the metal wall)!
> >>
> >> You must have some strange buddies. Who in the world would set up a radar
> >> within a metal hut? And even if they did, who would think it's a good
> >> idea
> >> to stay inside with it if it were on?
> >>
> >> There's nothing mythical about the Faraday shield; it works really well,
> >> so
> >> long as there are no discontinuities (apertures) and sufficient thickness
> >> and conductivity. Under real-world conditions, steel works pretty good,

> >> and
> >> any thickness sufficient to support itself will yield great shielding
> >> effectiveness. So the only real performance variable left is the holes in
> >> the conductive surface. How many, maximum dimension, proximity of
> >> radiating
> >> source to the shield, etc.
> >>
> >> While I would expect a Quonset hut to really mess up the accuracy of a
> >> radar, it likely wouldn't be a good shield, as the floor isn't metal, I
> >> don't think the ends are metal, and the various skin panels are rather
> >> poorly RF bonded.
> >>
> >> Ed
> >> wb6wsn
> >>
> >
> > I do not think your objections concerning the floor or the bonding of
> > the panels are too relevant.
> > The ends are metal and not relevant either.
> > The radar was pointing right at the wall (no windows nearby); any
> > presumed leakage via remote holes that you assumed might allow the
> > transmitted signal to leak, but would then not be focused on the bird(s)
> > and the path lengths would vary.
> > But the reflected signal from the bird or birds would be rather weak
> > and could not possibly be received via the same wild path(s) to a very
> > directional antenna.
> >
> > My point is that a Farady shield is a good attenuator, but not
> > "perfect" as ASSuMEd.
> > And it sure is not "flat" in attenuation characteristic as a function
> > of frequency.
>
> Those weren't objections, they were speculations on my part as to how you
> boys could have been finessing the generally applicable laws of physics.
>
> But truly, the story stinks. So you and your army buddies are in this metal
> hut, with a fairly high-power radar, and somebody comes up with the bright
> idea to turn the thing on. Apparently no thought about RF personnel hazards
> and no concern about strong reflections cooking your detector. Did you test
> your M16's in a Quonset hut too?
>
> Next point. "The radar was pointing right at the wall..." Now tell me, in a
> semi-circular Quonset hut, how do you point anything "right at the wall"?
> Maybe straight up?
>
> Now, a bird doesn't have a very big radar cross section, maybe only about
> 0.01 square meters, so the return loss is really big. And to resolve a
> single bird, I'm gonna guess that you had an X or K band radar. So let's run
> some numbers. Let's say you had a 100kW radar, with a 30 dBi antenna of 1
> square meter aperture. At 1500 meters, your detector power would be about 1

> picowatt, or -60 dBm. Well hey, that's pretty decent, I'll bet you could see
> a bird at one mile.
>
> But that's assuming no loss at all due to the metal hut skin. Let's see what
> happens if we say that the metal hut walls give us only 40 dB of shielding
> (by absorption or reflection, it doesn't matter). That bites 80 dB out of
> your path budget, putting your detector signal down to -140 dBm. I think
> your story just ran out of luck.
>
> Now you can argue about the 40 dB shielding effectiveness of the metal wall,
> but I'll say that I was being very generous about that. At 10 GHz, I know
> (How? Easy, I do it everyday. Just 3 days ago, I was keeping some 1.3 GHz
> from radiating off of some cables, and it was common old Reynolds Wrap to
> the rescue.), I can get >100 dB out of a sheet of aluminum foil. The SE is
> so damn high from the material that the only significant factor is when the
> energy finds a path around the shield.
>
> Don't try to argue that a Faraday cage leaks; you appear to be trying to
> build a general case based on your experience of always having observed
> leaky structures. Sure, I know that shielding varies with lots of factors,
> conductivity, permeability, thickness, frequency, angle of incidence,
> distance from source, and then there's the problem of apertures. But your
> hut, with plain old galvanized steel about 1/16" thick, would make a great
> shielded enclosure, as long as the joints didn't leak.
>
> BTW, I don't like using the term "Faraday cage". Despite all due respect to
> Mr. Faraday, calling it a shielded enclosure is a clearer description.
>
> Ed
> wb6wsn

I was not alluding to leakage; a more accurate term would be
re-radiation.
Take an ordinary transformer; it radiates a magnetic field, despite
the fact that the core is a closed loop.
In fact, one could get nasty and say the same thing about a toroid
transformer.
Now add a shorted copper turn around the outside of the ordinary
transformer's core (i have seen this on many TV power transformers and
others as well).
What happens? That magnetic field induces a current in that shorted
turn, making an opposing magnetic field - thereby reducing the net
radiated magnetic field greatly - but not to zero.
Now, instead of using that closely wrapped copper shoted turn, put
that transformer inside that shielded room you love.
Results: great reduction, but not to zero.
Increase the frequency to something one might consider RF.
Now one has an RF transmitter inside that shielded room, inducing
currents in the wall(s).
Those currents create opposing fields, and greatly attenuate the

signal outside the walls.
But they are not zero.
BW, radar is usually pulsed, and in the megawatt to multi-megawatt region for the pulse.
Also, the quonset huts i saw had relatively vertical walls; the rounded curvature was more so near the top.
And it might help to ask the bird(s); they even dislike those pesky jets getting in their way.

# 4258. Re: Antennas vs Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-28 11:30:50 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <33cuvgF3qtbitU1@individual.net>
Source record: 84658

You behave like a 5-year-old.

"Peter" <microwaves@blueyonder.co.uk> wrote in message
news:41d07a1f.4685877@News.Individual.NET...
> Just ignore him (Airy) Richard ... the best thing is to kill file him
> as most of us in the UK have already done. He's been posting in this
> inflammatory manner for years.
> By the way he is really Gareth Evans, G4SDW, of Chippenham, England.
> With a name like that I guess he orginally hails from Wales, not
> England so he can't really call himself an authority on the English
> language!
> If you follow this thread you'll see he will come back at me with one
> of his highly predictable insulting phrases .. you wait!
> The only time I know he's around is if others quote him in their posts
> so please folks ... IGNORE HIM!

## 4259. Re: Antennas vs Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-28 11:32:16 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <33cuvhF3qtbitU2@individual.net>
Source record: 84656

Proving once again that Yankland does not speak English.

"Richard Harrison" <richardharrison@webtv.net> wrote in message
news:14548-41D0C895-214@storefull-3254.bay.webtv.net...
> Note the book`s title is "Antennas". Kraus notes that in England the
> usage makes no distinction and that both insect and radio antennas are
> "antennae" in the plural. In the U.S. it`s antennae for the insects and
> it`s antennas for radios.

# 4260. FS: LDG Z-11 tuner w/OTT for ft-817...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-28 11:35:54 UTC
From: "Jeffrey M. Swiger" <N8NOE@Comcast.Net>
Message-ID: <BDF6AF4A.14C1%N8NOE@Comcast.Net>
Source record: 84655

Hi All, I have a LDG Z-11 Tuner with One touch tune for my FT-817, but got the SGC-211 here. So I'm not in need of the tuner. It's in Great Condition, an Works Well. I'll be Putting it on eBay ASAP, and wanted to post it tot he groups first.. I'll accept a resonable offer, as I Just don't need 2...
Thanks Jeff
N8NOE

N8NOE@Comcast.Net

# 4261. Re: Antennas vs Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-28 11:36:28 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <33cuvhF3qtbitU3@individual.net>
Source record: 84657

You came up with this a few days ago, but did not,
or could not, substantiate your claim.

The word, "Antena" appears in modern Greek, and arrived
there in response to its widespread adoption by the World
to describe radio antennae.

It does not appear either as "Antena" or as "Antenna" in ancient
Greek dictionaries, at least in those that I can find on the Internet.

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:r26rs0lgc75hk60f5vk90rp3v0lf7ad500@4ax.com...
> On Sat, 25 Dec 2004 13:30:36 -0000, "Airy R. Bean" <me@privacy.net>
> wrote:
>
> >The real plural, from its Latin root is, "antennae".
>
> The original root is actually the translation of "horns of insects"
> from Greek which predates the Roman invention of the term (used in the
> sense of a sail's yardarm as you say) into Latin.
>
> >Those who are ignorant about the English Language
>
> strikes the source. ;-)
>
> 73's
> Richard Clark, KB7QHC

# 4262. Re: Antennas vs Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-28 11:40:23 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <33cv76F3vmfe1U1@individual.net>
Source record: 84659

You behave like a 5-year-old, in particular your shouting
of insults and then running away to hide behind a kill-file.

If, indeed, you have a complaint about me and my postings
and their presence in this NG, why do you promote discussion
upon the topic? Would it not be easier to take the mature option
and just ignore me?

You didn't think your gratuitous insult through, did you?

Stupid boy!

"Peter" <microwaves@blueyonder.co.uk> wrote in message
news:41d07a1f.4685877@News.Individual.NET...
> Just ignore him (Airy) Richard ... the best thing is to kill file him
> as most of us in the UK have already done. He's been posting in this
> inflammatory manner for years.
> By the way he is really Gareth Evans, G4SDW, of Chippenham, England.
> With a name like that I guess he orginally hails from Wales, not
> England so he can't really call himself an authority on the English
> language!
> If you follow this thread you'll see he will come back at me with one
> of his highly predictable insulting phrases .. you wait!
> The only time I know he's around is if others quote him in their posts
> so please folks ... IGNORE HIM!

# 4263. Re: AM radio reception inside passenger planes?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-28 13:40:01 UTC
From: Dave VanHorn <dvanhorn@dvanhorn.org>
Message-ID: <W6CdnWXtJc2U_0zcRVn-vw@comcast.com>
Source record: 84660
Cross-posted to: rec.travel.air,rec.radio.amateur.antenna,sci.electronics.equipment

FAR more likely that the antenna for the radar was outside the hut.
There may have been one slaved to it, inactive, inside the hut to
demonstrate what's going on upstairs.

There are plenty of good reasons why such a demo wouldn't work as described,
from killing the detector with strong reflections, to massive
re-re-reflections inside the building, to the fact that radar relies on a
"pencil" beam that wouldn't survive through those walls in any rational way,
and so on.

# 4264. Re: AM radio reception inside passenger planes?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-28 13:40:14 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <_mdAd.14884$8e5.14258@fed1read07>
Source record: 84661
Cross-posted to: rec.travel.air,rec.radio.amateur.antenna,sci.electronics.equipment

"Robert Baer" <robertbaer@earthlink.net> wrote in message
news:41D129E1.D61AE5D9@earthlink.net...

SNIP

>> >> > "Faraday shield" to some degree is a myth.
>> >> > I have seen radars inside quonset huts track a *bird* flying a few
>> >> > miles away (thru the metal wall)!
>> >>
>> >> You must have some strange buddies. Who in the world would set up a
>> >> radar
>> >> within a metal hut? And even if they did, who would think it's a good
>> >> idea
>> >> to stay inside with it if it were on?
>> >>
>> >> There's nothing mythical about the Faraday shield; it works really
>> >> well,
>> >> so
>> >> long as there are no discontinuities (apertures) and sufficient
>> >> thickness
>> >> and conductivity. Under real-world conditions, steel works pretty
>> >> good,
>> >> and
>> >> any thickness sufficient to support itself will yield great shielding
>> >> effectiveness. So the only real performance variable left is the holes
>> >> in
>> >> the conductive surface. How many, maximum dimension, proximity of
>> >> radiating
>> >> source to the shield, etc.
>> >>
>> >> While I would expect a Quonset hut to really mess up the accuracy of a
>> >> radar, it likely wouldn't be a good shield, as the floor isn't metal,
>> >> I
>> >> don't think the ends are metal, and the various skin panels are rather
>> >> poorly RF bonded.
>> >>
>> >> Ed
>> >> wb6wsn
>> >>
>> >
>> > I do not think your objections concerning the floor or the bonding of
>> > the panels are too relevant.
>> > The ends are metal and not relevant either.
>> > The radar was pointing right at the wall (no windows nearby); any

>> > presumed leakage via remote holes that you assumed might allow the
>> > transmitted signal to leak, but would then not be focused on the
>> > bird(s)
>> > and the path lengths would vary.
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>> > and could not possibly be received via the same wild path(s) to a very
>> > directional antenna.
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>> > My point is that a Farady shield is a good attenuator, but not
>> > "perfect" as ASSuMEd.
>> > And it sure is not "flat" in attenuation characteristic as a function
>> > of frequency.
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>> Those weren't objections, they were speculations on my part as to how you
>> boys could have been finessing the generally applicable laws of physics.
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>> But truly, the story stinks. So you and your army buddies are in this
>> metal
>> hut, with a fairly high-power radar, and somebody comes up with the
>> bright
>> idea to turn the thing on. Apparently no thought about RF personnel
>> hazards
>> and no concern about strong reflections cooking your detector. Did you
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>> your M16's in a Quonset hut too?
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>> Next point. "The radar was pointing right at the wall..." Now tell me, in
>> a
>> semi-circular Quonset hut, how do you point anything "right at the wall"?
>> Maybe straight up?
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>> Now, a bird doesn't have a very big radar cross section, maybe only about
>> 0.01 square meters, so the return loss is really big. And to resolve a
>> single bird, I'm gonna guess that you had an X or K band radar. So let's
>> run
>> some numbers. Let's say you had a 100kW radar, with a 30 dBi antenna of 1
>> square meter aperture. At 1500 meters, your detector power would be about
>> 1
>> picowatt, or -60 dBm. Well hey, that's pretty decent, I'll bet you could
>> see
>> a bird at one mile.
>>
>> But that's assuming no loss at all due to the metal hut skin. Let's see
>> what
>> happens if we say that the metal hut walls give us only 40 dB of
>> shielding
>> (by absorption or reflection, it doesn't matter). That bites 80 dB out of
>> your path budget, putting your detector signal down to -140 dBm. I think
>> your story just ran out of luck.
>>

>> Now you can argue about the 40 dB shielding effectiveness of the metal
>> wall,
>> but I'll say that I was being very generous about that. At 10 GHz, I know
>> (How? Easy, I do it everyday. Just 3 days ago, I was keeping some 1.3 GHz
>> from radiating off of some cables, and it was common old Reynolds Wrap to
>> the rescue.), I can get >100 dB out of a sheet of aluminum foil. The SE
>> is
>> so damn high from the material that the only significant factor is when
>> the
>> energy finds a path around the shield.
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>> Don't try to argue that a Faraday cage leaks; you appear to be trying to
>> build a general case based on your experience of always having observed
>> leaky structures. Sure, I know that shielding varies with lots of
>> factors,
>> conductivity, permeability, thickness, frequency, angle of incidence,
>> distance from source, and then there's the problem of apertures. But your
>> hut, with plain old galvanized steel about 1/16" thick, would make a
>> great
>> shielded enclosure, as long as the joints didn't leak.
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>> BTW, I don't like using the term "Faraday cage". Despite all due respect
>> to
>> Mr. Faraday, calling it a shielded enclosure is a clearer description.
>>
>> Ed
>> wb6wsn
>
> I was not alluding to leakage; a more accurate term would be
> re-radiation.
> Take an ordinary transformer; it radiates a magnetic field, despite
> the fact that the core is a closed loop.
> In fact, one could get nasty and say the same thing about a toroid
> transformer.
> Now add a shorted copper turn around the outside of the ordinary
> transformer's core (i have seen this on many TV power transformers and
> others as well).
> What happens? That magnetic field induces a current in that shorted
> turn, making an opposing magnetic field - thereby reducing the net
> radiated magnetic field greatly - but not to zero.
> Now, instead of using that closely wrapped copper shoted turn, put
> that transformer inside that shielded room you love.

My shielded enclosure only asks that I respect it; I don't think it would
provide better SE even if I told it that I loved it.

> Results: great reduction, but not to zero.

Nothing ever goes to zero; I'll usually settle for "great" reductions.

> Increase the frequency to something one might consider RF.
> Now one has an RF transmitter inside that shielded room, inducing
> currents in the wall(s).
> Those currents create opposing fields, and greatly attenuate the
> signal outside the walls.

You're getting a little fuzzy here. The propagating wave induces surface currents on the metal barrier. The currents "sink" into the metal, decreasing to about 37% (1/e) in what's called a "skin depth". At 10 GHz, a "skin depth" in steel is really thin. After even 10 skin depths, the current is down to only about 1/100,000 of what was on the surface. And there's a whole lot of more skin depths to go before the current is presented to the far surface of the steel barrier. And only then does the surface current on the far side of the barrier get to launch a propagating wave.

Note that the "opposing fields" you mentioned are on the INSIDE, the near surface, of the barrier. The reflected field is 180 degrees out of phase with the incident field, so, real close to the metal surface, the E-field nulls. OTOH, that reflected wave now goes marching back at you, creating lots of fun with out-of-phase energy pumped back into the original radiating element. Everybody sees bad, bad VSWR. And, since you guys were inside a metal hut, there's even more fun in store for you. Not all that energy goes back into the originating antenna. A lot of it just keeps bouncing around inside the hut, creating 3-D variations in power density. Think of yourself as a potato, slowly cooking.

So, to keep this straight, the current that survives Ohmic losses to make it to the far side of the barrier doesn't "greatly attenuate the signal outside the walls". It actually creates the signal (the propagating wave) on the far side of the barrier.

We can talk about aperture leakage and re-radiation from barrier impedance discontinuities some other time.

> But they are not zero.
> BW, radar is usually pulsed, and in the megawatt to multi-megawatt
> region for the pulse.

Multi-megawatt? Hmm, 10 MW? OK, and maybe a duty cycle of 0.01%? Isn't that 1 kW average? I own a 250 kW X-band radar that will do up to 0.1% duty cycle. I sure wouldn't sit in a metal box with that thing running! I wouldn't even want to be in the boresight of the antenna within a few hundred feet. I was trying to be charitable in assuming that nobody would be so dumb as to fire up a multi-megawatt radar INSIDE a metal hut. Looks like you guys proved me wrong!

Ed
wb6wsn

Ed
wb6wsn

# 4265. Re: G5RV Too Short for 80 Meters ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-28 14:08:24 UTC
From: W9DMK <w9dmk@crosslink.net>
Message-ID: <41d167ab.990183@news.crosslink.net>
Source record: 84662

On Tue, 28 Dec 2004 02:36:11 -0500, Gary <gdn50@@@usol.com> wrote:

>I've looked at some commercial "full size" G5RV's and the leg lengths
>are about 51 feet long each, that seems a tad short for 80 meters.
>Would I experience quite a bit of loss in the tuner ( External ) Or
>maybe I should try and erect a dipole with leg lengths as long as I
>can and feed it with 450 Ohm Ladder line or 300 Ohm twinlead and be
>able to operate on 30 meters ? I understand the G5RV doesn't work too
>well for 30 meters, and I need some place to operate during contests.
>My primary bands of interests are 80 thru 20 CW.
>
>Thanks in advance.
>
>Gary K8IQ

Dear Gary,

When G5RV designed that antenna, it was designed for 20 meters.
What does that tell you?

Your own suggestion is a pretty good one. However, don't expect that
you will be lucky enough to have it tune to 1:1 on all frequencies,
just because you use a balanced feedline and a tuner. Usually, some
matching is necessary with discrete elements or transmission line
segments, stubs, etc.

If you want to take advantage of the extensive work of others on the
"all purpose" center fed dipoles, take a look at Cecil's web site.
Bob, W9DMK, Dahlgren, VA
http://www.qsl.net/w9dmk

# 4266. What's the deal? (was: Re: AM radio reception inside passenger planes?)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-28 14:32:21 UTC
From: Julia Child <Iron.Chef@cooks.r.us>
Message-ID: <41D16E75.CAB91711@cooks.r.us>
Source record: 84663
Cross-posted to: rec.travel.air,rec.radio.amateur.antenna,sci.electronics.equipmen

What's with all the recipe bullshit posts?

Who's posting these?

Ed Price wrote:
>
> oil.
> Add a little water, season, then add the carcass.
> Simmer for half an hour keeping the stock thick.
> Remove the carcass and add the vegetables slowly to the stock,
> so that it remains boiling the whole time.
> Cover the pot and simmer till vegetables are tender
> (2 hours approximately).
> Continue seasoning to taste.
> Before serving, add butter and pasta,
> serve piping with hot bread and butter.

# 4267. Re: What's the deal? (was: Re: AM radio reception inside passenger planes?)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-28 15:13:18 UTC
From: Bob Miller <NOSPAMrmiller47@satx.rr.com>
Message-ID: <jst2t0l699d195nkvpad1a2jnvd5i61j8d@4ax.com>
Source record: 84664
Cross-posted to: rec.travel.air,rec.radio.amateur.antenna,sci.electronics.equipmen

On Tue, 28 Dec 2004 09:32:21 -0500, Julia Child <Iron.Chef@cooks.r.us>
wrote:

ignore

>What's with all the recipe bullshit posts?
>
>Who's posting these?

Well, this is the info I received. I don't really understand it, but
this is what I was told:

Hello,

this message is never sent unsolicited. Don't panic.
You - or more precisely someone using your mail address - have
posted a test message to the following Newsgroups:

de.alt.test,bit.listserv.test,rec.radio.amateur.antenna

Your message was sent

Sat, 25 Dec 2004 21:01:30 GMT

travelling from your location to the news.karlvalentin.de (Germany).
Your article arrived here at Sun Dec 26 2004 00:40:05 +0100 (CET)
and this is the way it went (read from back to front):

news.karlvalentin.de!news.qymp.de!tarantoga!auth.de.news.easynet.net!spool3.bllon.news.eas
ynet.net!easynet-quince!easynet.net!news.glorb.com!transit1.nntp.hccnet.nl!transit.nntp.hc
cnet.nl!transit2.nntp.hccnet.nl!feeder.news-service.com!psinet-eu-nl!news.satx.rr.com!149.
52.149.150.mismatch

Reflector Mail is sent to anybody posting into a group ending with
the
word ".test". If you don't want to receive reflector mails, include
e.g.
the words 'ignore' at the top of your articles.

For obvious reasons, mails to reflector@karlvalentin.de are directed
into /dev/null. If you feel to write us, send your mail to
news-adm@karlvalentin.de instead.

Full headers plus the first 20 lines of your original message were:
| Path: news.karlvalentin.de!news.qymp.de!tarantoga!auth.de.news.easynet.net!spool3.bllon.
news.easynet.net!easynet-quince!easynet.net!news.glorb.com!transit1.nntp.hccnet.nl!transit

.nntp.hccnet.nl!transit2.nntp.hccnet.nl!feeder.news-service.com!psinet-eu-nl!news.satx.rr.com!149.52.149.150.mismatch
| From: Bob Miller <rmiller47@satx.rr.com>
| Subject: Re: Modification of G5RV - need help on this
| Approved: Bob Miller <rmiller47@satx.rr.com>
| Newsgroups: de.alt.test,bit.listserv.test,rec.radio.amateur.antenna
| References: <g97rs05mcn3ecvacruajmuqtjbf0705fn8@4ax.com>
| Date: Sat, 25 Dec 2004 21:01:30 GMT
| Message-ID: <3oxix0yd3b0a7g4uvqkuyb8o5aooyreigb@4ax.com>
| X-Newsposter: AtomicPost/32 (http://149.52.149.150) Registered
| NNTP-Posting-Host: 149.52.149.150
| X-Trace: satx.rr.com 5830402087 149.52.149.150 (25 Dec 2004 21:01:30 GMT)
| Followup-To: news.admin.net-abuse.email
| Lines: 49
| Xref: news.karlvalentin.de de.alt.test:11560
|
| soften.
| In skillet, brown the meat in a little olive oil,
| then add onions, peppers, and celery (all chopped finely)
| and season well.
| Place in a large bowl and cool.
| Add seasoned breadcrumbs and a little of the tomato gravy,
| enough to make the mixture pliable.
| Divide the stuffing among the cabbage leaves then roll.
| Place seam down in a baking pan.
| Ladle tomato gravy on top,
| and bake at 325Â¦ for 30 - 45 minutes.
|
|
|
| Umbilical Cordon Bleu
|
| Nothing is so beautiful as the bond between mother and child,
| so why not consume it?
| Children or chicken breasts will work wonderfully also.
|

>
>Ed Price wrote:
>>
>> oil.
>> Add a little water, season, then add the carcass.
>> Simmer for half an hour keeping the stock thick.
>> Remove the carcass and add the vegetables slowly to the stock,
>> so that it remains boiling the whole time.
>> Cover the pot and simmer till vegetables are tender
>> (2 hours approximately).
>> Continue seasoning to taste.
>> Before serving, add butter and pasta,
>> serve piping with hot bread and butter.

## 4268. {©¿©} · A Love Gift For You! ·

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-28 16:24:00 UTC
From: aol12131@yahoo.com
Message-ID: <1104251039.992907.138860@z14g2000cwz.googlegroups.com>
Source record: 84665

{©¿©} www.gift.boxke.net <<

# 4269. Re: Antennas vs Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-28 16:42:09 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <gs23t0d3n4t9bu1udvbrt58v1cr4n5jrfq@4ax.com>
Source record: 84666

On Tue, 28 Dec 2004 11:36:28 -0000, "Airy R. Bean" <me@privacy.net>
wrote:
> at least in those that I can find on the Internet.
Faulty research. My references are irrefutable. Try going to the
source, it can't be more than a dozen miles.

73's
Richard Clark, KB7QHC

# 4270. Re: G5RV Too Short for 80 Meters ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-28 17:09:41 UTC
From: microwaves@blueyonder.co.uk
Message-ID: <41d18d04.9509233@News.Individual.NET>
Source record: 84667

On Tue, 28 Dec 2004 02:36:11 -0500, Gary <gdn50@@@usol.com> wrote:

>I've looked at some commercial "full size" G5RV's and the leg lengths
>are about 51 feet long each, that seems a tad short for 80 meters.

That's because the "missing" portions are in the open wire section.
It still works at 80m and can be fed with 75ohm coax at the lower end
of the line via a 1:1 balun. Better still would be to bring the open
wire section into the shack and to an ATU.

From what I remember from using one of these many, many years ago, I
used 29ft 6 inches of 300 ribbon feeder as against 32 - 33 ft of open
wire (300 ohm ribbon has different velocity factor to the open wire
and 450 ohm ladderline)

>Would I experience quite a bit of loss in the tuner ( External ) Or
>maybe I should try and erect a dipole with leg lengths as long as I
>can and feed it with 450 Ohm Ladder line or 300 Ohm twinlead and be
>able to operate on 30 meters ?

Yes ... and use the 450 ohm ladder line

>I understand the G5RV doesn't work too
>well for 30 meters,

It was never designed for that band as we didn' have that allocation
when Louis, G5RV, introduced the antenna. That's why it's best to use
open wire right down to the shack. You can then use it on all of
todays HF bands via an ATU. The 102 foot "top" is also no magic then.
Make the legs as long as you can .... you might even be able to work
160 metres if you can get out enough wire!

BTW, please dont buy a G5RV !!! They are so easy to make and work out
cheaper. You also have the satisfaction that you made it yourself,
which is what amateur radio is (hopefully largely) about.

Have you considered putting up a 50 ohm coax fed inverted V 80 metre
dipole and then adding a 40 metre dipole to the same coax feed point?
It can come down at a sharper angle than the 80m one or run at right
angles to it. You'll then have 80, 40 and 15 metres since the 40m
dipole will work has 3 half waves in phase on 15. You can hang dipoles
for the other bands to the same feeder as well. Be prepared for some
cut 'n try of course! This system elimates the need for an ATU but
you'll find the usable bandwidth on 80m to be only just a couple of
dozen kHz or so. The open wire version will be tuneable across the
whole of each band via the ATU.

Good luck,

Peter, G3PHO

# 4271. Re: Antennas vs Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-28 17:10:14 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <33dih7F3u1944U1@individual.net>
Source record: 84668

Clearly you are a troll.

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:gs23t0d3n4t9bu1udvbrt58v1cr4n5jrfq@4ax.com...
> On Tue, 28 Dec 2004 11:36:28 -0000, "Airy R. Bean" <me@privacy.net>
> wrote:
> > at least in those that I can find on the Internet.
> Faulty research. My references are irrefutable. Try going to the
> source, it can't be more than a dozen miles.
>
> 73's
> Richard Clark, KB7QHC

# 4272. Re: What's the deal? (was: Re: AM radio reception inside passenger planes?)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-28 17:21:44 UTC
From: mnc@admin.u.nu
Message-ID: <9ZOdnUbakte1C0zcRVn-3A@speakeasy.net>
Source record: 84669
Cross-posted to: rec.travel.air,rec.radio.amateur.antenna,sci.electronics.equipmen

Bob Miller <NOSPAMrmiller47@satx.rr.com> wrote:
> Julia Child <Iron.Chef@cooks.r.us> wrote:
>> What's with all the recipe bullshit posts?
>>
>> Who's posting these?
>
> Well, this is the info I received. I don't really understand it, but
> this is what I was told:
>
> this message is never sent unsolicited. Don't panic.
> You - or more precisely someone using your mail address - have
> posted a test message to the following Newsgroups:
>
> de.alt.test,bit.listserv.test,rec.radio.amateur.antenna

That's just a side-effect of the message having been posted to a 'test'
newsgroup - basically irrelevant to the real issue.

Look up 'hipcrime' in google for more info about what went on with the baby
recipes.

miguel
--
Hit The Road! Photos from 32 countries on 5 continents: http://travel.u.nu

# 4273. Re: Antennas vs Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-28 17:57:53 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <tj63t0dncicuvidb585a14u60fkoa3lrnn@4ax.com>
Source record: 84670

On Tue, 28 Dec 2004 17:10:14 -0000, "Airy R. Bean" <me@privacy.net>
wrote:
>Clearly you
can't find a way to the obvious material.

It's very simple, no more than a dozen miles north of you. All of
maybe three turns to make to get on the road, and get off it at the
obvious source. You could have walked it by now. Using the Internet
as a research tool is all fine and well, but it hardly constitutes the
final say. Others could accomplish this I suppose, especially when
I've offered the author of the translation and the period.

Finding it on the net is neither difficult nor impossible, I just have
it simpler with a good library and the OED not 6 feet away. Not only
is it faster (consider how much time it has taken you to NOT
accomplish anything), but it would eventually be the reference used by
any link offered. ;-)

Or - you can wait until Google does it for you (news item, American
company is going to digitize the college libraries for the Brits).

73's
Richard Clark, KB7QHC

# 4274. Re: What's the deal? (was: Re: AM radio reception inside passenger ...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-28 18:32:54 UTC
From: richardharrison@webtv.net
Message-ID: <14548-41D1A6D6-318@storefull-3254.bay.webtv.net>
Source record: 84671

The term Faraday screen, sield, or cage, has been applied to perforated continuous sheets of metal in this thread. That`s generally wrong.

A Faraday screen, shield, or cage is a network of parallel wires or strips connected together at one end but disconnected from each other at their opposite ends. I`ve worked at several broadcast stations which used Faraday screens at every tower to magnetically couple the tower to the feedline while eliminating all capacitive coupling. The purpose is to disadvantage harmonic coupling to the tower in which capacitance favors due to lowered capacitive reactance at the harmonic frequencies.

At the stations, two coupled coils are used. They are close together and share the same axis. Between the two coil forms is erected a heavy plate sliced with parallel cuts. These start at one edge of the plate but end before reaching quite to the other edge. The purpose is to eliminate capacitive coupling between the coils but to allow tight magnetic coupling between the coils. In the broadcast station they also have another salutary effect. The tower`s lightning strikes nearly all are terminated on the Faraday screen and kept out of the radio equipment.

A Faraday screen, shield, or cage is a network of parallel wires or strips connected on one end but disconnected from each other at their opposite ends. It`s similar to a conductive comb. The connected ends of the wires are usually grounded.

The open-circuit wires prohibit circulating current from wire to wire. Fields of the induced current would cancel the field of the inducing current thus canceling inductive coupling. Due to the gaps, the screen is transparent to the magnetic field but the wires capture the electrostatic lines of force and eliminate capacitive coupling through the screen.

A screen properly grounded at both ends of the wires sliminates magnstic and electrostatic coupling. It is a shield but not a Faraday shield. A continuous conducting shield is not a Faraday shield, even if perforated with small holes. A lot of screened rooms have been constructed from copper window screen. It decouples the contentents of the room from the whole world when done correctly.

Best regards, Richard Harrison, KB5WZI

# 4275. Re: G5RV Too Short for 80 Meters ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-28 18:59:44 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41d1ad38$1_4@127.0.0.1>
Source record: 84572

Gary wrote:
> I've looked at some commercial "full size" G5RV's and the leg lengths
> are about 51 feet long each, that seems a tad short for 80 meters.
> Would I experience quite a bit of loss in the tuner ( External ) Or
> maybe I should try and erect a dipole with leg lengths as long as I
> can and feed it with 450 Ohm Ladder line or 300 Ohm twinlead and be
> able to operate on 30 meters ? I understand the G5RV doesn't work too
> well for 30 meters, and I need some place to operate during contests.
> My primary bands of interests are 80 thru 20 CW.

Hi Gary, take a look at http://www.qsl.net/w5dxp/notuner.htm for some
information and ideas.
--
73, Cecil, W5DXP

----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

# 4276. Re: G5RV Too Short for 80 Meters ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-28 19:15:07 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41d1b0d3$1_4@127.0.0.1>
Source record: 84573

Peter wrote:

> On Tue, 28 Dec 2004 02:36:11 -0500, Gary <gdn50@@@usol.com> wrote:
>>I've looked at some commercial "full size" G5RV's and the leg lengths
>>are about 51 feet long each, that seems a tad short for 80 meters.
>
> That's because the "missing" portions are in the open wire section.

Why the G5RV works well on 75m is explained using a Smith Chart on my
web page at: http://www.qsl.net/w5dxp/G5RV.HTM where it can be seen
that the series twinlead matching section transforms the antenna
feedpoint impedance of 36-j324 ohms to a resonant impedance of 17 ohms.
Even better is to install a 1000 pf cap across the line at the coax to
twinlead junction to achieve a near perfect match on 75m (remove for
use on the higher bands).
--
73, Cecil, W5DXP

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

# 4277. Re: What's the deal? (was: Re: AM radio reception inside passenger ...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-28 19:47:38 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <4MJA6jYahb0BFA5G@ifwtech.co.uk>
Source record: 84574

Richard Harrison wrote:

>
>A Faraday screen, shield, or cage is a network of parallel wires or
>strips connected together at one end but disconnected from each other
>at their opposite ends. I`ve worked at several broadcast stations which
>used Faraday screens

The special comb-like structure that Richard describes, which is deliberately constructed to block electric fields but transmit magnetic fields, is normally called a Faraday "screen" - but not a cage.

The term Faraday "cage" is reserved for a complete conducting enclosure that blocks both electric and magnetic fields from entering the interior.

The rest of the discussion is about how well an incomplete or penetrated enclosure might work as a Faraday cage.

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

# 4278. Re: Loop vx Folded Dipole noise factor

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-28 20:38:35 UTC
From: richardharrison@webtv.net
Message-ID: <3783-41D1C44B-331@storefull-3255.bay.webtv.net>
Source record: 84576

Roy, W7EL wrote:
"The response of electrically large (on the order of a half wavelength and larger) dipoles and loops to electric and magnetic fields depends on the direction and distance to the source."

Yes. The dierectional response of a 1/2-wave folded dipole is the same as that of a 1/2-wave open-circuit dipole. The main difference may be the difference in impedance presented to the transmission line.

Here is my experience. Lightning is an extremely large noise. My corporation used VHF radios to interrogate remote data stations. For decades we used Andrew Corporation folded 1/4-wave unipoles atop high towers around the world in base stations to communicate with mobiles in any direction. These had proved indestructable. Both the stainless steel antenna and the radio used, with no lightning protection on the feedline, other than the Heliax used to connect the antenna with the radio. This was before we started the data radio operation. The Heliax is a common-mode rejecter due to its equivalent circuit.

For the data radios, the operation was point-to-point. Directional antennas were useful in this service. The data radios immediately started to be destroyed by lightning strikes. Problem was the yagi antenna. The driven element was an open circuit. We quickly fixed that with an short-circuit 1/4-wave stub shunted across the antenna at its feedpoint. No more lightning damage. The short-circuit removed enough of the off-frequency noise (lightning) to save the radios. So the operation continues decades later with Motorola transistorized mobile radios as the data base and remote stations.

Best regards, Richard Harrison, KB5WZI

# 4279. Re: G5RV Too Short for 80 Meters ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-28 20:42:01 UTC
From: nm5k@wt.net
Message-ID: <1104266521.820546.39880@f14g2000cwb.googlegroups.com>
Source record: 84575

Peter wrote:

>
> Have you considered putting up a 50 ohm coax fed inverted V 80 metre
> dipole and then adding a 40 metre dipole to the same coax feed point?
> It can come down at a sharper angle than the 80m one or run at right
> angles to it. You'll then have 80, 40 and 15 metres since the 40m
> dipole will work has 3 half waves in phase on 15. You can hang
dipoles
> for the other bands to the same feeder as well. Be prepared for some
> cut 'n try of course! This system elimates the need for an ATU but
> you'll find the usable bandwidth on 80m to be only just a couple of
> dozen kHz or so.

Should be wider than that...I usually get 200-250-300 kc "2:1 SWR" on
80m,
using common fed dipoles. About the same as a single dipole...I just
checked
mine out of curiosity, and I'm tuned at about 3910kc. Using the SWR
meter
in the rig, I hit 2:1 at about 3.810. Actually, I usually tune about
3850 or
so, but it seems to have changed a bit, probably cuz a large tree was
cut down,
and I had to change the antenna layout a bit. But anyway, I'm getting
3.810
to 4.000 usable with no tuner if you consider 2:1 the limit. I am using
an
MFJ 989c tuner, but usually only for the wattmeter...But I can use it
to go
off the beaten path.. Right now, I've got 160,80,40 on one coax feed. I
can
use the tuner for any of the other bands. Even with the coax loss, it
usually
works ok about anywhere. Works real well on 30m, even though the SWR is
about
5:1 or so..At that freq, and the rg-213 I use, 5:1 doesn't add too
awful much
loss. I get real good reports. Running the different dipoles at right
angles
is the best, with almost zero interaction. As they start to parallel,
the
coupling between them will increase, but is usually no big deal.

It's best to always start, and tune the lowest band first, and then add
and
tune each higher band dipole as you go along. Thats the fastest and
easiest
way. If you have coupling problems, it will almost always show up on
the
higher band dipole. Almost never on the lower. IE: An 80 and 40 dipole
on
the same feed, would usually show any coupling/tuning problems on 40m.
Often,
just moving one of the 40 legs a few feet farther away will let it tune
fairly
normally. Once set up, and tuned, the performance of the paralleled
dipoles
will usually outdo most tuner driven/ladder line fed single dipoles. No
tuner losses, no knob fiddling, and you have a normal dipole pattern on
each
of the bands used. It's been my preferred setup for years as far as my
"everyday" lower band antennas. The efficiency is in the 95%+- range
depending
on the band..."I use 213 coax" Can't really improve on that much..Even
lowly
rg-58 will be pretty low loss on the lower bands, as long as the length
is
not excessive. MK

# 4280. Re: What's the deal? (was: Re: AM radio reception inside passenger ...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-28 21:10:25 UTC
From: richardharrison@webtv.net
Message-ID: <3783-41D1CBC1-335@storefull-3255.bay.webtv.net>
Source record: 84578

Ian White, G3SEK wrote:
"---but not a cage."

A cage according to my American dictionary is:
"A boxlike receptacle or enclosure for confining birds or other animals,
made with openwork of wires, bars, etc."

Ian sent me to my dictionary of electronics which reads:
"Faraday cage-See Faraday Shield"

Usage varies from place to place. I don`t know if I`m vindicated or
stand corrected.

Best regards, Richard Harrison, KB5WZI

# 4281. Re: Loop vx Folded Dipole noise factor

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-28 21:12:47 UTC
From: nm5k@wt.net
Message-ID: <1104268367.813607.166500@z14g2000cwz.googlegroups.com>
Source record: 84577

Ed wrote:

>
> I have two nice 100'+ trees between which it would be quite easy
to
> install a dipole..... whether it be folded or standard depends on the

> comments I receive from you guys on the low noise characteristic I am

> questioning.
>
> Ed K7AAT

Myself, I would just build the standard dipole. As far as any far field

noise, I consider the two types the same in performance. The main
difference being the impedance step up on the folded version. As
Richard
mentioned, there may be lightning advantages to the folded version, but
for general HF noise, I don't think it would matter. You have to
consider
what noise is. It's RF. Your antenna is *supposed* to be able to
receive
noise. If it doesn't , it's defective as far as I'm concerned. Many
build
antennas that they claim to be low, or lower noise, but myself, I'm of
the
opinion they are usually building lower efficiency antennas which
naturally pick up less noise. To decrease the pickup of far field
noise,
you can change polarization, directional pattern, or efficiency. Being
as
your proposed dipoles will have the same polarization, and pattern, the
only thing left to reduce noise pickup is efficiency. Do you *really*
want to lose efficiency in order to reduce far field noise pickup? I
sure wouldn't...There may be an advantage as far as static buildup with
the folded dipole, but do you
actually have a static buildup problem? I don't have that problem here
in Houston. It's hardly ever dry enough around here.. Any common mode
noise problems are dealt with using baluns, chokes, etc...
To make the best decision, you need to know what noise? you are trying
to cut.
If it's general far field noise, you are chasing a dream that doesn't
really exist, unless you want to degrade your antenna system, or make
it directional, etc. I *want* my antennas to pick up noise, if it's
there to be picked up.

Lets me know they are working...:/ MK

# 4282. Re: What's the deal? (was: Re: AM radio reception inside passenger ...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-28 21:46:06 UTC
From: Ian Jackson <IanJacksonRemoveThisBit@g3ohx.demon.co.uk>
Message-ID: <9VokBtQeQd0BFwJL@g3ohx.demon.co.uk>
Source record: 84579

In message <3783-41D1CBC1-335@storefull-3255.bay.webtv.net>, Richard Harrison <richardharrison@webtv.net> writes
>Ian White, G3SEK wrote:
>"---but not a cage."
>
>A cage according to my American dictionary is:
>"A boxlike receptacle or enclosure for confining birds or other animals,
>made with openwork of wires, bars, etc."
>
>Ian sent me to my dictionary of electronics which reads:
>"Faraday cage-See Faraday Shield"
>
>Usage varies from place to place. I don`t know if I`m vindicated or
>stand corrected.
>
>Best regards, Richard Harrison, KB5WZI
>

Was it not an Ice Bucket which Faraday used to demonstrate the fact that the electrostatic charges repelled each other as far as possible, and therefore stayed on the outside of the bucket? The inside was electrically dead.
Ian.

--

# 4283. Re: Loop vx Folded Dipole noise factor

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-28 22:17:32 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10t3ms32jumod99@corp.supernews.com>
Source record: 84580

There are three common sources of HF noise:

1. (Propagated) atmospheric noise. There's no magic antenna that can tell the difference between atmospheric noise and signals coming from the same direction as the noise. An antenna that attenuates one will attenuate the other by an equal amount. A directional antenna will improve the signal to atmospheric noise ratio only if the two are coming from different directions and the antenna can be oriented to favor the signal and reject the noise.

2. Static discharge. Rain and snow can carry static charges, creating noise at the antenna itself. Also, a gathering storm can cause a large static potential to build up on an ungrounded antenna, even to the point of corona at the antenna ends and arcing across the feedpoint. I saw this many times in Denver, but never here in western Oregon. This can be prevented by making a DC short or near short across the feedline with a resistor, RF choke, or shorted stub, or by using an antenna that inherently has a DC short across the feedpoint, and by avoiding any sharp points like wire ends. A loop of any size has both these features, although there are other ways to get them.

3. Local noise. One antenna can be much better or worse than another at rejecting noise that originates close to the antenna. Often, horizontal polarization is better than vertical for rejecting local noise, or any noise that's within surface wave range. If the noise source is very close -- within a fraction of a wavelength -- a small loop might help, since it's relatively insensitive to electric fields from sources which are very close by. However, it's difficult to make a small loop that's efficient, so it's usually a better choice for receiving, with some other antenna being used for transmitting.

Roy Lewallen, W7EL

Ed wrote:
>
> My thanks to all for responses to my quetion. And my somewhat belated
> response to the comment (above): I guess I must be somewhat ambiguous in
> reference to the low noise of a loop. I have always heard that proper
> loop antennas had a lower noise characteristic than other open ended
> antennas. The type of noise in question, I don't know. I suspect at my
> locations I have a combination of man made and atmospheric noises being
> received at my presesnt dipole.
>
> Since I intend to build a new antenna, and since I am now forced to
> consider the construction of a folded dipole in lieu of the more
> difficult to erect loop, that was the reason for my original question.

>
> I have two nice 100'+ trees between which it would be quite easy to
> install a dipole..... whether it be folded or standard depends on the
> comments I receive from you guys on the low noise characteristic I am
> questioning.
>
> Ed K7AAT
>
>

# 4284. Bury balanced line?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-28 22:18:34 UTC
From: Bob P <nospam@nospam.end>
Message-ID: <oY2dneE_-60PQUzcRVn-1g@comcast.com>
Source record: 84581

For esthetic / XYL / neighboor reasons, I'm thinking of running balanced "ladder" line to the back of my yard, via 1" PVC pipe with appropriate measures to keep the water out, and burying it maybe a foot underground. Length of the run might be 20 feet along the bottom of a deck and then 60 feet buried, give or take. Then straight up a tree centered between two other trees to feed about a 80' center fed dipole.
Nothing else will be in the pipe with the feed line. Anyone have any thoughts on why this might or might not work? The ground where it could be buried, is on the moist side most of the year.
Bob
kb8tl

# 4285. Re: What's the deal? (was: Re: AM radio reception inside passenger ...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-28 22:47:58 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <9bn3t0p1kcgf1gpn755mhag8n9ph1dcljb@4ax.com>
Source record: 84582

On Tue, 28 Dec 2004 21:46:06 +0000, Ian Jackson
<IanJacksonRemoveThisBit@g3ohx.demon.co.uk> wrote:

>Was it not an Ice Bucket which Faraday used to demonstrate the fact that
>the electrostatic charges repelled each other as far as possible, and
>therefore stayed on the outside of the bucket? The inside was
>electrically dead.

Hi Ian,

Maybe it was part of an office party. Anyway, Gauss demonstrated that electric charge FIELD LINES prefer as much separation as possible (which conforms to your charges being repelled). With a curvature, the field line normal to the surface will either cause line crowding or line spreading depending upon the geometry. With a positive curvature (the outside of a conducting shell) the lines spread; with a negative curvature (the inside of a conducting shell) the lines converge. Given that the bucket is conductive inside and out, he demonstrated that line proximity within the bucket drove the charges outside. This is not quite an issue of charges being repelled as far as possible, or they would be uniformly distributed inside and out.

By the same logic (and experience), charge will accumulate on the surface at the smallest radius - hence the points on lightning rods. By extension, this is also the source of capacitor failure at either the edges (smallest radius of a plate) or in surface burrs.

HCJB, in Quito, suffered from corona discharge and converted to loops (misnomer, actually box), they still suffered when the corners (smallest radius) supported the same discharge (being corner fed). They shifted to a center feed point and put the hi voltage nodes at the middle of a wire span.

73's
Richard Clark, KB7QHC

## 4286. Good copper cleaner?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-28 22:57:40 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <27p3t01ec5p08gahh67cqre4ko9obd0qlc@4ax.com>
Source record: 84583

I have a ground rod that has become corroded. My VOM measures no continuity between the rod and the ground wire.

Is there and easy spray-on cleaner of some kind that would make the ground rod shiney and conductive again, where I attach the ground wire? (I don't think I can pull the rod out to replace it; it'd be easier to fix what I have.)

Tnx,

Bob
k5qwg

# 4287. Re: Bury balanced line?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-28 23:03:49 UTC
From: David Ryeburn <ryeburn@sfu.caz>
Message-ID: <ryeburn-3F70A4.15034828122004@morgoth.sfu.ca>
Source record: 84586

In article <oY2dneE_-60PQUzcRVn-1g@comcast.com>,
"Bob P" <nospam@nospam.end> wrote:

> For esthetic / XYL / neighboor reasons, I'm thinking of running balanced
> "ladder" line to the back of my yard, via 1" PVC pipe with appropriate
> measures to keep the water out, and burying it maybe a foot underground.
> Length of the run might be 20 feet along the bottom of a deck and then 60
> feet buried, give or take. Then straight up a tree centered between two
> other trees to feed about a 80' center fed dipole.
> Nothing else will be in the pipe with the feed line. Anyone have any
> thoughts on why this might or might not work? The ground where it could be
> buried, is on the moist side most of the year.
> Bob
> kb8tl

The wires in the ladder line would be much too close to the surrounding ground. You don't want anything within several times the wire spacing distance of either ladder line conductor except good quality insulators. (I don't know how good even the PVC might be but I suspect it would be good enough.)

If you could put the 1" PVC pipe inside some larger diameter PVC pipe, keep them concentric, and keep the water out of the space between them as well as the inside of the 1" PVC pipe, that might be OK since it would keep the ground farther away from the wires. The larger the diameter of the outer pipe, the better.

1" diameter pipe would require ladder line with very close spacing between the wires, in order to fit inside the pipe. Close spacing means low surge impedance, unless the wire diameter is small. All other things being equal, higher surge impedance lines with wider spacing have lower losses than lower surge impedance lines. Using smaller wire diameter in an attempt to get higher surge impedance in a closely spaced line is *not* the route to lower losses. So you may want to re-think the 1" diameter choice. But if you made the inside pipe diameter (and ladder line spacing) larger, you'd have to make the diameter of the outer pipe larger too.

Coax, provided you keep RF off of its outer surface, sounds like a simpler way to make the surrounding ground irrelevant.

David, ex-W8EZE, who as a mathematician believes that avoiding problems is often better than solving them

--
David Ryeburn

ryeburn@sfu.caz
To send e-mail, use "ca" instead of "caz".

# 4288. Re: What's the deal? (was: Re: AM radio reception inside passenger ...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-28 23:05:58 UTC
From: Ian Jackson <IanJacksonRemoveThisBit@g3ohx.demon.co.uk>
Message-ID: <BVqrhxfWbe0BFweY@g3ohx.demon.co.uk>
Source record: 84584

In message <9bn3t0p1kcgf1gpn755mhag8n9ph1dcljb@4ax.com>, Richard Clark
<kb7qhc@comcast.net> writes
>By the same logic (and experience), charge will accumulate on the
>surface at the smallest radius - hence the points on lightning rods.
>By extension, this is also the source of capacitor failure at either
>the edges (smallest radius of a plate) or in surface burrs.
>

Again scraping the very bottom of the memory banks, I seem to recall
that when lightning rods were first used (in the late 1700s), the
British used sharp points. The French, in the spirit of one-upmanship,
decided that theirs should have brass balls. DOH!!!
Ian.
--

# 4289. Re: Modification of G5RV - need help on this

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-28 23:07:17 UTC
From: Dick Ballard <ballardr@att.net>
Message-ID: <bcp3t01svqn6fi7h8144ovk2mq8lf5544b@4ax.com>
Source record: 84585

You can adjust the length of the feed line. But it is a trade-off. It takes a lot of experimentation to get a length that works ok for all frequencies of operation. The high SWR on the feed line produces different impedances at different frequencies and the length is a critical variable.

Dick W7AND

On Sat, 25 Dec 2004 17:19:56 GMT, none@none.com wrote:

>I am using a G5RV and an Icom 756Pro II. The auto antenna tuner will
>tune the antenna fine except in the area of 3963.5 and up to at least
>4.0385. I use 4.0385 as a member of MARS. Right now my SWR "as
>shown" is well into the "red zone".
>
>Is there any way to modify the antenna to get it to be a better match
>so that the auto tuner can do its thing. The antenna is the shortened
>or Jr. version with a ladder wire lead in.
>
>Would changing the lead in to RG8 coax be a help??
>
>Sure will appreciate some help. I am a novice at this and it is
>important that I am able to use 4.083.5.

# 4290. Re: What's the deal? (was: Re: AM radio reception inside passenger ...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-28 23:56:13 UTC
From: Jack Painter <223bthp@cox.net>
Message-ID: <yomAd.30574$7p.21112@lakeread02>
Source record: 84587

"Ian Jackson" <IanJackson@g3ohx.demon.co.uk> wrote
>, Richard Clark <kb7qhc@comcast.net> writes
> >By the same logic (and experience), charge will accumulate on the
> >surface at the smallest radius - hence the points on lightning rods.
> >By extension, this is also the source of capacitor failure at either
> >the edges (smallest radius of a plate) or in surface burrs.
> >
>
> Again scraping the very bottom of the memory banks, I seem to recall
> that when lightning rods were first used (in the late 1700s), the
> British used sharp points. The French, in the spirit of one-upmanship,
> decided that theirs should have brass balls. DOH!!!
> Ian.
> --

Very interesting! However the American Benjamin Franklin's pointed lightning rods (it was not a British design) was never scientifically challenged until a couple of years ago. Scientists have now shown that blunt-tipped air terminals are attached by lightning with significantly higher frequency than sharp tipped rods are. Pretty amazing that it took over 230 years to "discover" this! So scrap the concept that a sharp edge attracts charges, at least it does not attract lighting, the ultimate charge.

http://www.usatoday.com/weather/resources/basics/2000-05-15-lightn-rod-tests.htm
http://www.esdjournal.com/articles/franklin/franklin.htm
http://www.mikeholt.com/news/archive/html/master/lightningblunt.htm
etc, etc

Jack Painter
Virginia Beach VA

# 4291. Re: Good copper cleaner?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-29 00:04:04 UTC
From: Jim Leder <k8cxm@spam.fuse.net>
Message-ID: <SvmAd.13432$IZ2.5130@fe37.usenetserver.com>
Source record: 84588

Odd thing to use, but it works: Worcestershire Sauce.
Easy to find at the groceries. I've used it on copper pennies for years, and
old copper wire. But if you solder the wire after cleaning, it smells like
you are cooking something, but solders just fine.

"Bob Miller" <NOSPAM@neosoft.com> wrote in message
news:27p3t01ec5p08gahh67cqre4ko9obd0qlc@4ax.com...
>I have a ground rod that has become corroded. My VOM measures no
> continuity between the rod and the ground wire.
>
> Is there and easy spray-on cleaner of some kind that would make the
> ground rod shiney and conductive again, where I attach the ground
> wire? (I don't think I can pull the rod out to replace it; it'd be
> easier to fix what I have.)
>
> Tnx,
>
> Bob
> k5qwg

# 4292. Re: Good copper cleaner?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-29 00:29:36 UTC
From: dplatt@radagast.org
Message-ID: <10t3ujgihdr2i64@corp.supernews.com>
Source record: 84589

>I have a ground rod that has become corroded. My VOM measures no
> continuity between the rod and the ground wire.
>
> Is there and easy spray-on cleaner of some kind that would make the
> ground rod shiney and conductive again, where I attach the ground
> wire? (I don't think I can pull the rod out to replace it; it'd be
> easier to fix what I have.)

Most of the ground rods I've seen are steel, with a thin copper plating. If your rod has corroded enough that you've lost continuity with the ground wire, I'd guess that your rod's copper plating is probably gone or is badly degraded. This has two implications:

- You may not be able to clean it enough to re-establish a good contact

- The copper may be gone from the portion of the rod which is beneath the soil surface, and hence your ground conductivity may be shot.

The best fix would be to pull out the existing rod (I know, it's a pain... using some sort of hoist or jack might be the best way to get it out), hammer in a new one, and then use a NEC-approved corrosion-proof way of bonding the grounding wire to the new rod (this usually means welding it, I believe).

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

# 4293. Re: Good copper cleaner?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-29 01:12:54 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <6t04t01qgesprrkd3hudjghqkg1kauuf75@4ax.com>
Source record: 84590

On Tue, 28 Dec 2004 19:04:04 -0500, "Jim Leder" <k8cxm@spam.fuse.net>
wrote:

>Odd thing to use, but it works: Worcestershire Sauce.
>Easy to find at the groceries. I've used it on copper pennies for years, and
>old copper wire. But if you solder the wire after cleaning, it smells like
>you are cooking something, but solders just fine.

Did a Google on cleaning copper, and the most common cleaner for
copper pots appears to be vinegar and salt, or lemon juice and salt.
Maybe Worcestershire sauce has same ingredients?

Or, maybe I'll just have to drive a new ground rod :-)

Bob
k5qwg

>
>
>"Bob Miller" <NOSPAM@neosoft.com> wrote in message
>news:27p3t01ec5p08gahh67cqre4ko9obd0qlc@4ax.com...
>>I have a ground rod that has become corroded. My VOM measures no
>> continuity between the rod and the ground wire.
>>
>> Is there and easy spray-on cleaner of some kind that would make the
>> ground rod shiney and conductive again, where I attach the ground
>> wire? (I don't think I can pull the rod out to replace it; it'd be
>> easier to fix what I have.)
>>
>> Tnx,
>>
>> Bob
>> k5qwg
>
>

# 4294. Re: Good copper cleaner?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-29 01:26:35 UTC
From: dplatt@radagast.org
Message-ID: <10t41ub9vtpni8a@corp.supernews.com>
Source record: 84591

In article <6t04t01qgesprrkd3hudjghqkg1kauuf75@4ax.com>,
Bob Miller <NOSPAM@neosoft.com> wrote:

>Did a Google on cleaning copper, and the most common cleaner for
>copper pots appears to be vinegar and salt, or lemon juice and salt.
>Maybe Worcestershire sauce has same ingredients?

The magic 8-ball known as Google seems to agree that you're right.
Most of the Worcestershire sauce recipies contain anchovies (quite
salty), and either vinegar or lemon or orange juice or some
combination thereof.

As to copper cleaners - one I remember favorably from my boyhood
puttering-with-chemistry days is a mix of sodium bicarbonate (baking
soda) and dilute ammonium hydroxide ("5% household ammonia water",
either clear or sudzy). The resulting slurry takes tarnish off of
copper or silver almost instantly (although I don't know how much of
the metal in the tarnish is returned to the surface and how much ends
up in the slurry).

Use with appropriate caution, gloves, and ventilation, of course.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
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# 4295. Re: Good copper cleaner?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-29 01:47:08 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10t43528cbaj2b9@corp.supernews.com>
Source record: 84592

Dave Platt wrote:
>
> Most of the ground rods I've seen are steel, with a thin copper
> plating. If your rod has corroded enough that you've lost continuity
> with the ground wire, I'd guess that your rod's copper plating is
> probably gone or is badly degraded. This has two implications:
>
> - You may not be able to clean it enough to re-establish a good contact
>
> - The copper may be gone from the portion of the rod which is beneath
> the soil surface, and hence your ground conductivity may be shot.
> . . .

Surely the ground conductivity doesn't depend on that thin plating of copper, does it? Isn't the conductivity of rust better than the dirt it's in contact with?

Roy Lewallen, W7EL

# 4296. Re: Good copper cleaner?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-29 01:48:35 UTC
From: Jim - NN7K <nn7kexk7zfg@NOSPAMsbcglobal.net>
Message-ID: <T1oAd.3565$wZ2.522@newssvr13.news.prodigy.com>
Source record: 84593

Why bother to try to clean? As mentioned, the copper has probably dissappeared from the ground rod, under ground. A trick you might try: Check your local garden center for Powdered Copper Sulfate (CU S O-4 )-it is used as a pest control, for gardens- also, is used as an ingrediant in the solution for plateing copper to items! (a greenish powder) Mix this with water, and
then pour it on to the ground rod/earth (warning- you may stearlize the ground - don't try this around ornimental plants, nor growth that you wish to keep alive!) May take several gallons, but with electrolyisis, may help replate the ground rod, and will certainly improve the ground's conductivity to the ground rod! As info, Jim NN7K

Bob Miller wrote:
> I have a ground rod that has become corroded. My VOM measures no
> continuity between the rod and the ground wire.
>
> Is there and easy spray-on cleaner of some kind that would make the
> ground rod shiney and conductive again, where I attach the ground
> wire? (I don't think I can pull the rod out to replace it; it'd be
> easier to fix what I have.)
>
> Tnx,
>
> Bob
> k5qwg

# 4297. Re: Good copper cleaner?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-29 02:08:58 UTC
From: dplatt@radagast.org
Message-ID: <10t44dq4gmg6u3f@corp.supernews.com>
Source record: 84594

In article <10t43528cbaj2b9@corp.supernews.com>,
Roy Lewallen <w7el@eznec.com> wrote:

>> - You may not be able to clean it enough to re-establish a good contact
>>
>> - The copper may be gone from the portion of the rod which is beneath
>> the soil surface, and hence your ground conductivity may be shot.

>Surely the ground conductivity doesn't depend on that thin plating of
>copper, does it? Isn't the conductivity of rust better than the dirt
>it's in contact with?

The conductivity of the rod itself will certainly decrease by some amount, if when the copper is gone. I don't have a quantitative figure for this. Whether the rust (from the corroded steel) is more or less conductive than the soil surrounding it will probably depend to some extent on the soil conditions... but both will surely be less conductive than uncorroded metal (be it steel or copper). Every extra ohm in the current pathway is going to result in an increase in voltage rise across the grounding system if/when the system takes a hit.

From what I see (based on a quick skim of the DoD-issued MIL-HDBK-419A on grounding and lightning protection), the copper plating serves two important purposes: compatibility with the copper wire, and protecting the steel of the rod from corrosion. By itself, it doesn't seem to be critical for carrying the current.

If the copper's gone, and the steel is in direct contact with the soil, I'd be concerned about the rod suffering some fairly serious corrosion over a period of a few years. You might end up with a ground rod which was, in effect, only a foot or so long... it could break or be badly narrowed by corrosion not far below where it's hammered into the ground. This might seriously compromise its ability to shunt the charge of a lightning strike into the soil and keep the voltage rise on the attached wires to a level that minimizes damage.

It probably depends a lot on the soil chemistry... e.g. acidic soils would probably be harder on an unplated ground rod that more alkaline soils, and would degrade it more rapidly.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

## 4298. Re: Good copper cleaner?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-29 02:21:43 UTC
From: dplatt@radagast.org
Message-ID: <10t455nk5evt11e@corp.supernews.com>
Source record: 84595

Additional followup: a technical report on ground-rod lifetime at
http://www.erico.com/public/library/fep/strike/LT0540.pdf has some
interesting conclusions.

It cites a study or two which suggests that ground rods with a 10 mil
copper coating should be good for a service life of up to 40 years.
With a 13 mil coating, 50 years.

Galvanized ground rods with a 3.9 mil zinc coating don't seem to be
good for more than a 10-year service life. One sample dug up after 10
years was corroded through, almost to the point of breaking, not far
below the soil surface.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
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# 4299. Re: Good copper cleaner?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-29 02:23:04 UTC
From: Jack Painter <223bthp@cox.net>
Message-ID: <dyoAd.30589$7p.5036@lakeread02>
Source record: 84596

"Bob Miller" <NOSPAM@neosoft.com> wrote
> Did a Google on cleaning copper, and the most common cleaner for
> copper pots appears to be vinegar and salt, or lemon juice and salt.
> Maybe Worcestershire sauce has same ingredients?
>
> Or, maybe I'll just have to drive a new ground rod :-)
>
> Bob
> k5qwg

Yessir my friend, the latter is your best move, and at about $12 it just isn't worth the worry about longevity of a compromised electrode! Do resist the temptation to push a new one back in the same hole, o.k.? ;-)

While you're at Home Depot, pick up a few, and add those extra ones you were meaning to do. It might be Lowe's that carries the pre-cut 25' lengths of #4 copper grounding wire for about $8. These are such cheap solutions to sleepless nights during thunderstorms!

73,
Jack Painter
Virginia Beach, VA

## 4300. Re: Bury balanced line?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-29 02:33:02 UTC
From: Ed <Huckleberry_REMOVE_@bigvalley.net>
Message-ID: <Xns95CDBCD71A8EEspectrumhogstarbandn@207.106.92.175>
Source record: 84597

Bob,

I, for one, can't imagine any "easy" way to bury open feed line without at least some degredation.

Were I in your shoes, I'd be thinking about coax to that tree and putting some kind of remote tuner out there.

Ed K7AAT

# 4301. Re: Good copper cleaner?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-29 02:44:32 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <m964t05r1fiqu1c7kbgkagmhgpv4d9hfjq@4ax.com>
Source record: 84598

On Tue, 28 Dec 2004 21:23:04 -0500, "Jack Painter" <223bthp@cox.net>
wrote:

>
>"Bob Miller" <NOSPAM@neosoft.com> wrote
> > Did a Google on cleaning copper, and the most common cleaner for
>> copper pots appears to be vinegar and salt, or lemon juice and salt.
>> Maybe Worcestershire sauce has same ingredients?
>>
>> Or, maybe I'll just have to drive a new ground rod :-)
>>
>> Bob
>> k5qwg
>
>Yessir my friend, the latter is your best move, and at about $12 it just
>isn't worth the worry about longevity of a compromised electrode! Do resist
>the temptation to push a new one back in the same hole, o.k.? ;-)
>
>While you're at Home Depot, pick up a few, and add those extra ones you were
>meaning to do. It might be Lowe's that carries the pre-cut 25' lengths of #4
>copper grounding wire for about $8. These are such cheap solutions to
>sleepless nights during thunderstorms!

My main problem is there is solid rock/limestone about a foot down. I
can't even penetrate it with my Glen Martin ground rod driver. So
putting down a new rod probably means digging a shallow ditch and
laying it down horizontally -- or laying some radial wire, or both.

bob
k5qwg

>
>73,
>Jack Painter
>Virginia Beach, VA
>

## 4302. Re: frequency of Mail Guard?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-29 02:49:30 UTC
From: zeb7k@hotmail.com
Message-ID: <1104288570.694998.97620@f14g2000cwb.googlegroups.com>
Source record: 84599

> Look up the FCC approval number (from the decal) on the FCC website.
> Reportedly, this will tell you everything you might want to know (so
> I've read). Maybe.
> Obviously, it'll be one of the unlicensed frequencies like 433 MHz.

Thanks so much. I looked into the site found the frequency and even
got schematics. Start at www.fcc.gov/oet/fccid.

# 4303. Re: What's the deal? (was: Re: AM radio reception inside passenger ...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-29 03:25:06 UTC
From: "J. Mc Laughlin" <jcm@power-net.net>
Message-ID: <10t48roaav78b97@corp.supernews.com>
Source record: 84600

There is more to the Franklin rods used in England: George III is said to have required the ends to be converted to round from pointed when the Revolution started - a pointed slam at Dr. Franklin. Nevertheless, the houses (once there were two) of parliament were protected by Dr. Franklin's rods.

It would have been so easy for the English to have co-opted Dr. Franklin and quite changed the course of history. Instead, he conned the French out of the critical support needed to win our freedom. 73 Mac N8TT

--
J. Mc Laughlin; Michigan U.S.A.
Home: JCM@Power-Net.Net

>
> Very interesting! However the American Benjamin Franklin's pointed
> lightning rods (it was not a British design) was never scientifically
> challenged until a couple of years ago. Scientists have now shown that
> blunt-tipped air terminals are attached by lightning with significantly
> higher frequency than sharp tipped rods are. Pretty amazing that it took
> over 230 years to "discover" this! So scrap the concept that a sharp edge
> attracts charges, at least it does not attract lighting, the ultimate
> charge.
>
>
http://www.usatoday.com/weather/resources/basics/2000-05-15-lightn-rod-tests
.htm
> http://www.esdjournal.com/articles/franklin/franklin.htm
> http://www.mikeholt.com/news/archive/html/master/lightningblunt.htm
> etc, etc
>
> Jack Painter
> Virginia Beach VA
>
>

# 4304. Re: Bury balanced line?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-29 03:35:01 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <qypAd.1292$X73.1245@bignews5.bellsouth.net>
Source record: 84601

"Bob P" <nospam@nospam.end> wrote in message
news:oY2dneE_-60PQUzcRVn-1g@comcast.com...
> For esthetic / XYL / neighboor reasons, I'm thinking of running balanced
> "ladder" line to the back of my yard, via 1" PVC pipe with appropriate
> measures to keep the water out, and burying it maybe a foot underground.
> Length of the run might be 20 feet along the bottom of a deck and then 60
> feet buried, give or take. Then straight up a tree centered between two
> other trees to feed about a 80' center fed dipole.
> Nothing else will be in the pipe with the feed line. Anyone have any
> thoughts on why this might or might not work? The ground where it could be
> buried, is on the moist side most of the year.

This may be an interesting experiment - and I for one will appreciate a
report of your success.
I would suggest trying it without burying it first - If it works
above-grade, it may work buried.
The biggest challenge will be keeping water out of the pipe.

---
Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.818 / Virus Database: 556 - Release Date: 12/17/2004

# 4305. Re: What's the deal? (was: Re: AM radio reception inside passenger ...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-29 04:03:41 UTC
From: Gary Schafer <gaschafer@comcast.net>
Message-ID: <g4b4t0546tavv4q3g8vtambgi7ng4io816@4ax.com>
Source record: 84602

On Tue, 28 Dec 2004 18:56:13 -0500, "Jack Painter" <223bthp@cox.net>
wrote:

>
>"Ian Jackson" <IanJackson@g3ohx.demon.co.uk> wrote
>>, Richard Clark <kb7qhc@comcast.net> writes
>> >By the same logic (and experience), charge will accumulate on the
>> >surface at the smallest radius - hence the points on lightning rods.
>> >By extension, this is also the source of capacitor failure at either
>> >the edges (smallest radius of a plate) or in surface burrs.
>> >
>>
>> Again scraping the very bottom of the memory banks, I seem to recall
>> that when lightning rods were first used (in the late 1700s), the
>> British used sharp points. The French, in the spirit of one-upmanship,
>> decided that theirs should have brass balls. DOH!!!
>> Ian.
>> --
>
>Very interesting! However the American Benjamin Franklin's pointed
>lightning rods (it was not a British design) was never scientifically
>challenged until a couple of years ago. Scientists have now shown that
>blunt-tipped air terminals are attached by lightning with significantly
>higher frequency than sharp tipped rods are. Pretty amazing that it took
>over 230 years to "discover" this! So scrap the concept that a sharp edge
>attracts charges, at least it does not attract lighting, the ultimate
>charge.
>
>http://www.usatoday.com/weather/resources/basics/2000-05-15-lightn-rod-tests.htm
>http://www.esdjournal.com/articles/franklin/franklin.htm
>http://www.mikeholt.com/news/archive/html/master/lightningblunt.htm
>etc, etc
>
>Jack Painter
>Virginia Beach VA
>

Jack,

All three references are of the same article. Note the rebuttals at
the end of one of them.

I would also find it hard to believe that ANY rods on a 12000 foot
mountain were not hit in 7 years!

That study would suggest that pointed rods were excellent lightning repellers and would protect things from being struck. Exactly what Franklin first thought.

If not excellent repellers then it would be highly suspect of the placement of the pointed rods on the mountain.

73
Gary K4FMX

# 4306. Re: Bury balanced line?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-29 04:13:36 UTC
From: Crazy George <muNnscOh@attSglPobaAl.nMet>
Message-ID: <41d231fb_2@news1.prserv.net>
Source record: 84603

Bob:

If I had to do what you are proposing, and could find no alternative, I would go purchase a bunch of the foam pipe insulation, experimentally determine what spacing 6" chunks of it would still support the line adequately centered in the pipe, and put that in 1-&#65533;" or 1-&#65533;" pipe, whichever it fit the best. Bigger is better as someone else pointed out. You might want to test some for RF loss, as the black version may well contain carbon. Styrofoam would be the best choice, but I don't know of a cylindrical form of Polystyrene foam. Maybe 1" strips of it cut from 4' X 8' sheets of 1" foam would work. Use your imagination, for gosh sakes. The PVC will survive underground satisfactorily, but paint the exposed ends for longest life (or use short pieces of gray conduit for the exposed portion).

--
Crazy George
Remove N O and S P A M imbedded in return address

"Bob P" <nospam@nospam.end> wrote in message news:oY2dneE_-60PQUzcRVn-1g@comcast.com...
> For esthetic / XYL / neighboor reasons, I'm thinking of running balanced
> "ladder" line to the back of my yard, via 1" PVC pipe with appropriate
> measures to keep the water out, and burying it maybe a foot underground.
> Length of the run might be 20 feet along the bottom of a deck and then 60
> feet buried, give or take. Then straight up a tree centered between two
> other trees to feed about a 80' center fed dipole.
> Nothing else will be in the pipe with the feed line. Anyone have any
> thoughts on why this might or might not work? The ground where it could be
> buried, is on the moist side most of the year.
> Bob
> kb8tl
>
>
>

# 4307. Re: Bury balanced line?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-29 05:53:10 UTC
From: richardharrison@webtv.net
Message-ID: <3783-41D24646-422@storefull-3255.bay.webtv.net>
Source record: 84604

Bob, KB8TL wrote:
"Anyone have any thoughts on why this might not work?"

I`ve worked in several medium wave broadcast stations which used buried coax to feed the towers. No problems..

I worked in a shortwave broadcast plant where we needed a 100 KW dummy load. So we constructed a parallel wire 600-ohm line only about 2 feet above the earth using Copperweld wires a few hundred feet long. It could boil the dew on the groud and bring earth worms to the surface. It also did a great job of dissipating the 100 KW.

Anytime parallel line such as twinlead or ladderline approaches ordinary earth, loss soars. Direct burial is impractical even inside fairly large conduit. Use one or two lengths of waterproof coax as buried line.

Best regards, Richard Harrison, KB5WZI

# 4308. Re: dc grounding on 25ft trap vertical ant 10m-80m

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-29 06:05:15 UTC
From: Charlie <charlie@aol.com>
Message-ID: <10t4i946a8msva7@news.supernews.com>
Source record: 84605

Just recently installed a Hustler 4-BTV ground mounted vertical. I added 20 tuned radials on 10,15,and 20M each for a total of 60 tuned radials. I also added 12 tuned radials on 40M. I was lazy and bought them from DX Engineering where I also got their stainless steel ground radial plate and the nifty tilt-over mount for the 4-BTV (and other verts as well). I did a little tweaking on the 4-BTV today and the tilt over was a breeze to use..what a treat to be able to complete an antenna tweak in about 2 minutes total time. Rig is ICOM 746 PRO and I am working all the DX I can hear.

www.dxengineering.com

Photos and stuff on my site listed below.... 73 / DX

--

Charlie
Ham Radio - AD5TH
www.ad5th.com
Live Blues Music
www.492acousticblues.com

"DAVID BROWNE" <david.browne7@ntlworld.com> wrote in message
news:pU0yd.1114$5d5.287@newsfe6-gui.ntli.net...
> thanks
> dave browne 2e0dmb
> "Richard Clark" <kb7qhc@comcast.net> wrote in message
> news:i1bbs0ls251k6hvhdifarepel9g24tdc34@4ax.com...
>> On Mon, 20 Dec 2004 18:42:02 GMT, "DAVID BROWNE"
>> <david.browne7@ntlworld.com> wrote:
>>>hi i have this ant and it dose not have dc grounding from ant to ground
>>>will
>>>it help clear static if i was to fit a dc ground, i have run ground to
>>>ground of ant, if dc ground will help , what inductor can i use or can i
>>>make coil
>>
>> Hi David,
>>
>> Add some radials to your vertical antenna. Research this by going to
>> google groups and doing a search using the keywords "ground" and
>> "radials."
>>
>> Add a choke at the feedpoint. This can be a coil of transmission
>> line, or a 1:1 Current BalUn.
>>
>> If you still have static noise AND it is due to charged particles

>> (smoke, soot, rain, snow, dust) then add a 1K Ohm resistor across the
>> feed point (or any handy choke of more than a 100 &#65533;H).
>>
>> 73's
>> Richard Clark, KB7QHC
>
>

# 4309. Re: What's the deal? (was: Re: AM radio reception inside passenger ...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-29 06:39:34 UTC
From: richardharrison@webtv.net
Message-ID: <16695-41D25126-409@storefull-3253.bay.webtv.net>
Source record: 84606

Gary, K4FMX wrote:
"I would find it hard to believe that ANY rods on a 12,000 foot mountain were not hit in seven years."

I saw a PBS program tonight on people scaling the highest peak in Antarctica. It may never have been struck by lightning in modern times. I spent two six-month hitches for my company on Tierra del Fuego. Not quite Antarctica, but still so cold that lightnning is unknown on the island.

Best regards, Richard Harrison, KB5WZI

# 4310. Thanks for the Responses was:Re: G5RV Too Short for 80 Meters ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-29 07:06:59 UTC
From: Gary
Message-ID: <qol4t0db0s8lqs7335es93c5ok4glpb6g4@4ax.com>
Source record: 84607

On Tue, 28 Dec 2004 12:59:44 -0600, Cecil Moore <w5dxp@hotmail.com>
wrote:

>Gary wrote:
>> I've looked at some commercial "full size" G5RV's and the leg lengths
>> are about 51 feet long each, that seems a tad short for 80 meters.
>> Would I experience quite a bit of loss in the tuner ( External ) Or
>> maybe I should try and erect a dipole with leg lengths as long as I
>> can and feed it with 450 Ohm Ladder line or 300 Ohm twinlead and be
>> able to operate on 30 meters ? I understand the G5RV doesn't work too
>> well for 30 meters, and I need some place to operate during contests.
>> My primary bands of interests are 80 thru 20 CW.
>
>Hi Gary, take a look at http://www.qsl.net/w5dxp/notuner.htm for some
>information and ideas.

Thanks to all that resonded. I'll have to do some antenna work when
the snow melts and we get some warmer weather in Michigan this spring.

Thanks again

73 Gary K8IQ

# 4311. Re: What's the deal? (was: Re: AM radio reception inside passenger ...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-29 08:07:06 UTC
From: Ian Jackson <IanJacksonRemoveThisBit@g3ohx.demon.co.uk>
Message-ID: <8q1UeyAqWm0BFw62@g3ohx.demon.co.uk>
Source record: 84608

In message <10t48roaav78b97@corp.supernews.com>, J. Mc Laughlin
<jcm@power-net.net> writes
>There is more to the Franklin rods used in England: George III is said to
>have required the ends to be converted to round from pointed when the
>Revolution started - a pointed slam at Dr. Franklin. Nevertheless, the
>houses (once there were two) of parliament were protected by Dr. Franklin's
>rods.
>
> It would have been so easy for the English to have co-opted Dr. Franklin
>and quite changed the course of history. Instead, he conned the French out
>of the critical support needed to win our freedom. 73 Mac N8TT
>
>--
>J. Mc Laughlin; Michigan U.S.A.
>Home: JCM@Power-Net.Net
>
>
>>
>> Very interesting! However the American Benjamin Franklin's pointed
>> lightning rods (it was not a British design) was never scientifically
>> challenged until a couple of years ago. Scientists have now shown that
>> blunt-tipped air terminals are attached by lightning with significantly
>> higher frequency than sharp tipped rods are. Pretty amazing that it took
>> over 230 years to "discover" this! So scrap the concept that a sharp edge
>> attracts charges, at least it does not attract lighting, the ultimate
>> charge.
>>
>>
>http://www.usatoday.com/weather/resources/basics/2000-05-15-lightn-rod-tests
>.htm
>> http://www.esdjournal.com/articles/franklin/franklin.htm
>> http://www.mikeholt.com/news/archive/html/master/lightningblunt.htm
>> etc, etc
>>
>> Jack Painter
>> Virginia Beach VA
>>
>>
>
>
In message <10t48roaav78b97@corp.supernews.com>, J. Mc Laughlin
<jcm@power-net.net> writes
>There is more to the Franklin rods used in England: George III is said to
>have required the ends to be converted to round from pointed when the

>Revolution started - a pointed slam at Dr. Franklin. Nevertheless, the
>houses (once there were two) of parliament were protected by Dr. Franklin's
>rods.
>
> It would have been so easy for the English to have co-opted Dr. Franklin
>and quite changed the course of history. Instead, he conned the French out
>of the critical support needed to win our freedom. 73 Mac N8TT
>
>--
>J. Mc Laughlin; Michigan U.S.A.
>Home: JCM@Power-Net.Net
>
>

'Protected' is the word. What is not always appreciated is that the
primary purpose of lightning rods (usually called 'lightning conductors'
in the UK) is to PREVENT a strike by allowing the electrical charge to
leak away before sufficient voltage builds up to cause an actual strike.
Ian.
--

# 4312. Re: What's the deal? (was: Re: AM radio reception inside passenger ...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-29 09:27:52 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <tUZF87JYin0BFAao@ifwtech.co.uk>
Source record: 84609

Richard Harrison wrote:
>Ian White, G3SEK wrote:
>"---but not a cage."
>
>A cage according to my American dictionary is:
>"A boxlike receptacle or enclosure for confining birds or other animals,
>made with openwork of wires, bars, etc."
>
>Ian sent me to my dictionary of electronics which reads:
>"Faraday cage-See Faraday Shield"
>
>Usage varies from place to place. I don`t know if I`m vindicated or
>stand corrected.

Me neither! The main lesson is that we have to be careful to define what we mean, because there's a strong risk that other people might understand something different.

Faraday cages are used at CERN and other large particle accelerators, to keep the sensitive particle detectors isolated from the pulsed megawatts of RF energy that are kicking the particles around the ring. CERN is an international facility, so each country has its own experiments using separate Faraday cages.

Several years ago, I needed to call a friend who was working at CERN. Someone picked up the phone, and a voice said "British Cage".

"Well," I thought, "that certainly puts us in our place..."

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

# 4313. Re: What's the deal? (was: Re: AM radio reception inside passenger planes?)

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-29 11:22:11 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <xrwAd.18563$8e5.11156@fed1read07>
Source record: 84610
Cross-posted to: rec.travel.air,rec.radio.amateur.antenna,sci.electronics.equipment

"Julia Child" <Iron.Chef@cooks.r.us> wrote in message
news:41D16E75.CAB91711@cooks.r.us...
> What's with all the recipe bullshit posts?
>
> Who's posting these?
>
> Ed Price wrote:
>>

SNIP

No, I didn't write that. However, "Julia", rest assured that, by posting
your question, your address will soon be harvested for use by the Hipcrime
bot in the DOS attack. Don't reply, don't post about it, don't help the bot.

Ed
wb6wsn

# 4314. Re: Antennas vs Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-29 11:50:38 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <33fkquF400qlcU1@individual.net>
Source record: 84611

Much bullshit from you, but no substantiation of your assertion.

"KB7QHC" some form of CB licence?

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:tj63t0dncicuvidb585a14u60fkoa3lrnn@4ax.com...
> On Tue, 28 Dec 2004 17:10:14 -0000, "Airy R. Bean" <me@privacy.net>
> wrote:
> >Clearly you
> can't find a way to the obvious material.
>
> It's very simple, no more than a dozen miles north of you. All of
> maybe three turns to make to get on the road, and get off it at the
> obvious source. You could have walked it by now. Using the Internet
> as a research tool is all fine and well, but it hardly constitutes the
> final say. Others could accomplish this I suppose, especially when
> I've offered the author of the translation and the period.
>
> Finding it on the net is neither difficult nor impossible, I just have
> it simpler with a good library and the OED not 6 feet away. Not only
> is it faster (consider how much time it has taken you to NOT
> accomplish anything), but it would eventually be the reference used by
> any link offered. ;-)
>
> Or - you can wait until Google does it for you (news item, American
> company is going to digitize the college libraries for the Brits).
>
> 73's
> Richard Clark, KB7QHC

## 4315. Re: Bury balanced line?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-29 13:00:08 UTC
From: Dave VanHorn <dvanhorn@dvanhorn.org>
Message-ID: <j6adnVDxJqfeN0_cRVn-rw@comcast.com>
Source record: 84612

Could you not create low loss "coax" by using concentric pipes?
Might be easier than all this hacking around..

That, or run heliax in the buried section, and convert to balanced in a
little box on the other end.

# 4316. AM/FM outside antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-29 13:23:22 UTC
From: seabat <seabat@boardermail.com>
Message-ID: <11b5t0hrfdffvk5cfu3jrkdatgee7f8uem@4ax.com>
Source record: 84613

Howdy: First off let me state that I am a complete idiot when it comes to antenna's. This will probably become painfully obvious after reading the rest of my post!

I have a bookshelf stereo system that has a rinky-dink little loop antenna for AM and a single little wire for FM, both of which run into a funny little plug that goes into the back of the set. No screws or ports to attach another antenna.

I live in a mobile home and it has a steel roof built over the top of it and I get no reception at all inside the house. In my car I can pick up AM/FM stations from Del Rio (30 miles away) and Uvalde (40 miles away) and even sometimes San Antonio, TX (120 miles away), but in the house, zilch!

I read somewhere that I could buy a shortwave antenna kit from Radio Shack and sting up the 100' feet of wire and that would be a good antenna for the radio. Did that and still no joy! The antenna is run from a tree to the edge of my steel roof and then along the edges of the joists. I then have an insulated wire soldered to this and run down the wall and through a window to the set. The whole thing does not touch metal anywhere, all stand-offs and insulators are used where required.

I've attached the stripped end of the lead-in wire to each of the leads from the back of the set individually and together in combinations, and still no joy. Just static. I've run the dial through the entire frequency bands and nothing. I've checked the whole antenna for anywhere it might come in contact with metal and made sure it was all insulated. It's about 15 feet off the ground and there are no high voltage wires, or wires of any kind anywhere around.

So with out berating me too severely around the head and shoulders, could some one tell me what I've done wrong and how to correct it?

Thanks for any help!

--
The Seabat

## 4317. Re: Bury balanced line?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-29 13:43:47 UTC
From: Dale Parfitt <par@parelectronics.com>
Message-ID: <nwyAd.10277$L7.7835@trnddc05>
Source record: 84614

"Dave VanHorn" <dvanhorn@dvanhorn.org> wrote in message
news:j6adnVDxJqfeN0_cRVn-rw@comcast.com...
>
> Could you not create low loss "coax" by using concentric pipes?
> Might be easier than all this hacking around..
>
> They call that hard line, as in Heliax etc.

W4OP

## 4318. Re: AM/FM outside antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-29 13:58:58 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <33frmjF3v4pepU1@individual.net>
Source record: 84615

The correct plural is, "antennae".

"seabat" <seabat@boardermail.com> wrote in message
news:11b5t0hrfdffvk5cfu3jrkdatgee7f8uem@4ax.com...
> Howdy: First off let me state that I am a complete idiot when it
> comes to antenna's.

## 4319. Re: AM/FM outside antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-29 14:00:55 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <33frqcF3vgl69U1@individual.net>
Source record: 84616

If the rest of the van isn't metal, then just connect a
wire to the steel roof

"seabat" <seabat@boardermail.com> wrote in message
news:11b5t0hrfdffvk5cfu3jrkdatgee7f8uem@4ax.com...
> I live in a mobile home and it has a steel roof built over the top of
> it

## 4320. Re: Bury balanced line?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-29 14:39:33 UTC
From: caskamite@hotmail.com
Message-ID: <cqufjb$s61$1@news7.svr.pol.co.uk>
Source record: 84617

And I thought it were only Black pudding that came from Bury...

# 4321. Re: George

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-29 15:12:35 UTC
From: Nick Kennedy <wa5bdu@yahoo.com>
Message-ID: <10t5ie0td855k2c@corp.supernews.com>
Source record: 84618

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:cqji1c$p50$1@hercules.btinternet.com...
>
> It's 10.00 hrs, Xmas Day.
>
> "George" is the nicest-sounding name in morse code. Its really rythmic and
> sings.

Nice to find such an interesting post on RRAA. And yes, George does have a nice sound.

It's interesting to me that many CW ops declare that their own callsign, however mundane, has an especially distinctive and appealing rhythm in Morse. Mine does too ... BDU, send the B, drop a dit, then turn it backwards. Logical like the laws of nature.

But NICK is another thing. You need an extra bit of pause between the N and the I for clarity. And a mis-heard extra dit at the start of the N makes me Rick, while one heard at the end changes me to Dick. Hmmm ...

I don't know history, but I do enjoy well written stories and opinions. Readers should go to Reg's page to see some more.

73--Nick, WA5BDU
in Arkansas

# 4322. Re: AM/FM outside antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-29 15:16:14 UTC
From: Mike Luther <mike.luther@ziplog.com>
Message-ID: <10t5igv72tvpjaa@corp.supernews.com>
Source record: 84619

Try to Isolate the problem first!

seabat wrote:

>So with out berating me too severely around the head and shoulders,
>could some one tell me what I've done wrong and how to correct it?
>
>Thanks for any help!
>
>
>
>

You should be able to take the unit outside and see if it can hear the stations on its own just outside the trailer. Maybe it can. Maybe it can't. If it is totally dead outside .. then is it defective? Then try the next step. Find a really weak station. Try attaching your new antenna to it in the same way you are attaching it to it while inside and see if the really weak station becomes more receiveable. You may find it does - or does not. If it does not, then the question you next need to answer is why not?

W5WQN

--

--> Sleep well; OS2's still awake! ;)

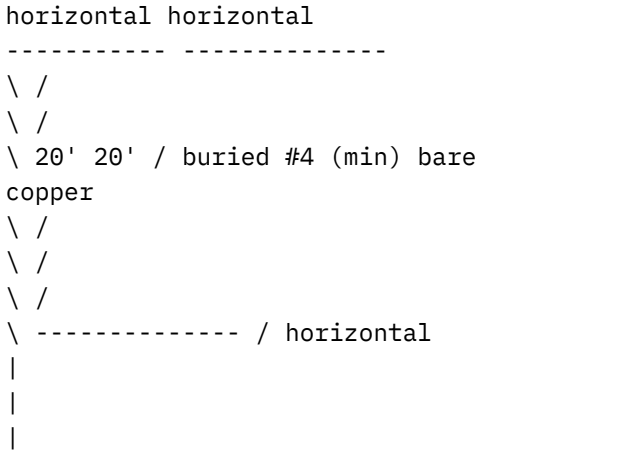
Mike Luther

## 4323. Re: Good copper cleaner?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-29 15:36:00 UTC
From: Jack Painter <223bthp@cox.net>
Message-ID: <A9AAd.35658$7p.8198@lakeread02>
Source record: 84620

"Bob Miller" <NOSPAM@neosoft.com> wrote
> My main problem is there is solid rock/limestone about a foot down. I
> can't even penetrate it with my Glen Martin ground rod driver. So
> putting down a new rod probably means digging a shallow ditch and
> laying it down horizontally -- or laying some radial wire, or both.
>
> bob
> k5qwg

Hi Bob, the horizontal burying of ground rod is fine, although a minimum depth of 3' is recommended in NFPA-780. Follow the same plan as for vertical ground rods by burying two additional (min.#4 wire) conductors for another 20' in a "Y" direction and repeating a horizontal rod at each of those locations.




Even in dry soil this will be a much more effective ground than a single 8' vertical ground rod.

73,
Jack

## 4324. Re: George

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-29 15:39:45 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <33g1jvF3ver2lU1@individual.net>
Source record: 84522

It raises the question of whether the "F" word had its
origins amongst the telegraphists.

It, too, is very rhythmic.....

_Di_didahdit _Di_didah _Dah_didahdit _Dah_didah.

"Nick Kennedy" <wa5bdu@yahoo.com> wrote in message
news:10t5ie0td855k2c@corp.supernews.com...
> It's interesting to me that many CW ops declare that their own callsign,
> however mundane, has an especially distinctive and appealing rhythm in
> Morse. Mine does too ... BDU, send the B, drop a dit, then turn it
> backwards. Logical like the laws of nature.

# 4325. Re: What's the deal? (was: Re: AM radio reception inside passenger ...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-29 15:40:23 UTC
From: Jack Painter <223bthp@cox.net>
Message-ID: <HdAAd.35659$7p.2896@lakeread02>
Source record: 84621

"Gary Schafer" <gaschafer@comcast.net> wrote
> Jack,
>
> All three references are of the same article. Note the rebuttals at
> the end of one of them.
>
> I would also find it hard to believe that ANY rods on a 12000 foot
> mountain were not hit in 7 years!
>
> That study would suggest that pointed rods were excellent lightning
> repellers and would protect things from being struck. Exactly what
> Franklin first thought.
>
> If not excellent repellers then it would be highly suspect of the
> placement of the pointed rods on the mountain.
>
> 73
> Gary K4FMX

Hi Gary, the study is of course much more detailed than the articles describe, I'll see if I can find you a link or post the abstract here anyway. But no, there is absolutely no such conclusion in that study (or any other accepted work) that any device can prevent lightning from striking a particular point by "draining off" charges.

73,
Jack

# 4326. Re: AM/FM outside antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-29 15:46:57 UTC
From: richardharrison@webtv.net
Message-ID: <3783-41D2D171-476@storefull-3255.bay.webtv.net>
Source record: 84525

Seabat wrote:
"I have a bookshelf stereo system that has a rinky-dink little loop antenna for AM and a single little wire for FM."

The designer likely assumed the loop and the wire would be immersed in AM and FM fields adequate for satisfactory reception.

The AM loop may not have enough signal because you`ve put it under a metal roof. The FM wire may not have enough signal because its elevation is too low at your site. You`re down in the Rio Grande valley.

The FM wire is likely about 2.5 feet long, or about 1/4-wavelength. Its impedance would be about 30 ohms near resonance.

The loop is likely part of the AM tuned input circuit with an impedance of about 1000 ohms.

For FM, you need to get the antenna up high. A ground-plane antenna is simple and works well. Vertical and radial parts can all be about 2.5 ft. long. It can be connected to your radio with 50-ohm coax. The existing wire is your FM input. Ground to the radio is probably one of the "rinky-dinky loop" wires. If not, capacitive coupling via aluminum foil or the like will likely do.

For AM, a tuned loop out from under the metal roof should capture ample signal. It can be enclosed in a non-metalic protection and does not need to be placed up high to work well. Wind a separate 2-turn coil around the loop to take out its signal. Connect this to yet another loop (which does not need to be tuned) via twisted pair. Place the untuned loop in the position next to the "rinky-dinky loop" which gives the best reception. When changing AM stations, you will need to retune the external loop for best reception.

Best regards, Richard Harrison, KB5WZI

# 4327. Re: What's the deal? (was: Re: AM radio reception inside passenger ...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-29 15:48:00 UTC
From: Jack Painter <223bthp@cox.net>
Message-ID: <QkAAd.35660$7p.12710@lakeread02>
Source record: 84523

"Ian Jackson" <IanJacksonRemoveThisBit@g3ohx.demon.co.uk> wrote
> 'Protected' is the word. What is not always appreciated is that the
> primary purpose of lightning rods (usually called 'lightning conductors'
> in the UK) is to PREVENT a strike by allowing the electrical charge to
> leak away before sufficient voltage builds up to cause an actual strike.
> Ian.

Hi Ian, while Franklin originally thought this was the case, he and others soon realized that safe handling of a lightning attachment was the function of his Franklin Rods, NOT avoidance of attachment. There has never been any proof that any device can prevent a strike from attaching to a particular point. The controversy surrounding the CTS (Charge Transfer System) and ESE (Early Streamer Emitters) exposes some of the dumbest junk science ever to hit the lightning-rod snake-oil trail. It has been thoroughly discredited as having absolutely zero effectiveness as a preventer and limited usefulness as a standard Franklin Rod when installed as its snake-oil purveyors proscribe. So please never assume that any rod, termination device, voodoo-doll on the roof or anything else can have any affect whatsoever of preventing a strike from attaching at any particular point.

Jack Painter
Virginia Beach, Virginia

# 4328. Re: Thanks for the Responses was:Re: G5RV Too Short for 80 Meters ?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-29 15:53:54 UTC
From: "J. Mc Laughlin" <jcm@power-net.net>
Message-ID: <10t5knmklho9s46@corp.supernews.com>
Source record: 84524

Dear Neighbor Gary:
Snow will melt over the next two days and it will be above freezing. Heat
wave in Michigan. Could be worse in the Spring.

with tongue-in-cheek, 73 Mac N8TT

--
J. Mc Laughlin; Michigan U.S.A.
Home: JCM@Power-Net.Net

>
> Thanks to all that resonded. I'll have to do some antenna work when
> the snow melts and we get some warmer weather in Michigan this spring.
>
> Thanks again
>
> 73 Gary K8IQ

# 4329. Re: Bury balanced line?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-29 16:14:03 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <fJAAd.7651$Y8.1656@newssvr17.news.prodigy.com>
Source record: 84526

Bob,
The 'quick'n'dirty' answer is don't waste your time burying
the ladder line. If you have to bury a feed line make it coax
(one of the reasons it was invented, to be able to run it close
to 'stuff', or ground). Still want to try it? Then why not. The
losses may be acceptible to you (sort of doubt that, but...), and
it would be an interesting experiment.
'Doc

ALTERNATIVE #1
Take up metal welding 'scupture'. Build a huge ~ugly~ thingy
in the backyard. Hang dipole over the top of it (call it a lightning
protection device). 'They' will be so upset over the 'sculpture'
they'll never even see the dipole. Invest in a good divorce attorney.

## 4330. Re: Good copper cleaner?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-29 16:21:52 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <AQAAd.7687$Y8.5393@newssvr17.news.prodigy.com>
Source record: 84527

Bob,
An easy fix? Forget it. Pull the thing out of the
ground and replace it with hard drawn copper pipe.
'Water drill' it into the ground (keep large hammer handy
for the rocks). Better yet, lay out several hundred
radials (sure easy to tell others to do that, isn't it?).
An 'easy way' and a 'good way' are seldom the same thing.
'Doc

PS - Don't bother pulling the old ground rod out. Just
sink the new one near it.

# 4331. Re: George

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-29 16:32:18 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41d2dc28$1_2@127.0.0.1>
Source record: 84529

Airy R. Bean wrote:
> It raises the question of whether the "F" word had its
> origins amongst the telegraphists.

My dictionary sez it came into existence around 1500 from
the Middle Dutch word "fokken" (thrust) and/or the Swedish
word "focka" (push) from which we apparently got the title
of the record breaking movie now playing in the US.
--
73, Cecil, W5DXP

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

## 4332. Re: Antennas vs Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-29 16:34:45 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <kqm5t01apeh5l81pdgjs002i2fb2902dn3@4ax.com>
Source record: 84528

On Wed, 29 Dec 2004 11:50:38 -0000, "Airy R. Bean" <me@privacy.net>
wrote:
>but no substantiation of your assertion.
What? Is it actually LESS than a dozen miles? ;-)
Or am I wrong that you could've walked that far?

73's
Richard Clark, KB7QHC

# 4333. Re: Bury balanced line?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-29 16:45:48 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41d2df52$1_3@127.0.0.1>
Source record: 84530

Richard Harrison wrote:
> Anytime parallel line such as twinlead or ladderline approaches ordinary
> earth, loss soars. Direct burial is impractical even inside fairly large
> conduit. Use one or two lengths of waterproof coax as buried line.

A ham I know uses parallel runs of buried RG62 as a compromise.
That gives him a characteristic impedance of 186 ohms for his 30
foot underground section. It was interesting to model that setup
using MicroSmith.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

# 4334. Re: Antennas vs Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-29 16:48:40 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <33g5m8F3vko8vU1@individual.net>
Source record: 84531

What are you blabbing on about?

Why not quote the Greek words that you claim
are the root of the Latin, "Antenna"?

You come across as a bullshitting CBer.

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:kqm5t01apeh5l81pdgjs002i2fb2902dn3@4ax.com...
> On Wed, 29 Dec 2004 11:50:38 -0000, "Airy R. Bean" <me@privacy.net>
> wrote:
> >but no substantiation of your assertion.
> What? Is it actually LESS than a dozen miles? ;-)
> Or am I wrong that you could've walked that far?
>
> 73's
> Richard Clark, KB7QHC

# 4335. Re: Antennas vs Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-29 19:09:49 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <q0v5t0tk7sfunlamso4203khbqa22flgod@4ax.com>
Source record: 84532

On Wed, 29 Dec 2004 16:48:40 -0000, "Airy R. Bean" <me@privacy.net>
wrote:
>Why not quote the Greek words that you claim
>are the root of the Latin, "Antenna"?

Ah C'mon. Unless this is the Special Olympics, filling in all the
blanks for you wouldn't go very far to uphold the honour of an
Englishman's command of the language. :-(

Besides, I agree with Dr. Johnson's definition of Answer-Jobbers:
"He that makes a trade of writing answers.
What disgusts me from having any thing to do with
answer-jobbers, is, that they have no conscience."

Umm, you aren't missing a copy of Johnson too, are you?

73's
Richard Clark, KB7QHC

# 4336. Re: What's the deal? (was: Re: AM radio reception inside passenger ...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-29 19:15:15 UTC
From: Ian Jackson <IanJacksonRemoveThisBit@g3ohx.demon.co.uk>
Message-ID: <lsvy$oADJw0BFw5V@g3ohx.demon.co.uk>
Source record: 84533

In message <QkAAd.35660$7p.12710@lakeread02>, Jack Painter
<223bthp@cox.net> writes
>
>"Ian Jackson" <IanJacksonRemoveThisBit@g3ohx.demon.co.uk> wrote
>> 'Protected' is the word. What is not always appreciated is that the
>> primary purpose of lightning rods (usually called 'lightning conductors'
>> in the UK) is to PREVENT a strike by allowing the electrical charge to
>> leak away before sufficient voltage builds up to cause an actual strike.
>> Ian.
>
>Hi Ian, while Franklin originally thought this was the case, he and others
>soon realized that safe handling of a lightning attachment was the function
>of his Franklin Rods, NOT avoidance of attachment. There has never been any
>proof that any device can prevent a strike from attaching to a particular
>point. The controversy surrounding the CTS (Charge Transfer System) and ESE
>(Early Streamer Emitters) exposes some of the dumbest junk science ever to
>hit the lightning-rod snake-oil trail. It has been thoroughly discredited as
>having absolutely zero effectiveness as a preventer and limited usefulness
>as a standard Franklin Rod when installed as its snake-oil purveyors
>proscribe. So please never assume that any rod, termination device,
>voodoo-doll on the roof or anything else can have any affect whatsoever of
>preventing a strike from attaching at any particular point.
>
>Jack Painter
>Virginia Beach, Virginia
>
>

As I said, I WAS scraping the very bottoms of the memory banks (and
licking them clean as well).....
Ian.
--

# 4337. Re: Good copper cleaner?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-29 20:26:44 UTC
From: Ed <Huckleberry_REMOVE_@bigvalley.net>
Message-ID: <Xns95CE7EBEB3C61spectrumhogstarbandn@207.106.92.175>
Source record: 84534

> PS - Don't bother pulling the old ground rod out. Just
> sink the new one near it.
>

Actually, given the "rock layer" situation he has, it might be worth pulling out the old one and driving the new one in the same hole.

Ed

# 4338. Re: Bury balanced line?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-29 20:55:20 UTC
From: richardharrison@webtv.net
Message-ID: <14550-41D319B8-38@storefull-3254.bay.webtv.net>
Source record: 84535

Cecil, W5DXP wrote:
"A ham I knpe uses parallel runs of RG 62 as a compromise. That gives him a characteristic impedance of 186 ohms for his 30 foot underground section."

Yes. It`s balanced to ground and has twice the characteristic impedance of a single run of coax. In the case of twin runs of RG 82, that is twice a value of 93 ohms, or 186 ohms, center conductor to center conductor.

I recall analog microwave radios which had their baseband signals wired with twin runs for each direction of transmission like that to obtain a shielded and balanced baseband system. It must have been good for the coax business and it made for a quiet radio too.

Best regards, Richard Harrison, KB5WZI

# 4339. Re: help me hack mailbox alert

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-29 21:51:05 UTC
From: zeb7k@hotmail.com
Message-ID: <1104357065.158731.183990@c13g2000cwb.googlegroups.com>
Source record: 84536

I thought I just put an update here for posterity. I got it working.

zeb7k@hotmail.com wrote:
> Hi, I'd like to extend the operable range of a Radio Shack cat #
> 63-1110 mailbox alert. It works with a small photo sensitive
> transmitter mounted inside the mailbox. When the mailbox is opened
> (i.e. a change of light level) the transmitter sends a burst (of what
> frequency I know not) to the base unit. The indoor wall-wart-powered
> base unit with a 11" antenna flashes an LED and beeps when it
receives
> this signal.
>
> The directions say the transmitter should be max 150' away and in
line
> of sight. Well, I'd like the thing to work at 275' and slightly out
of
> line of sight --around some trees and over a small hill.
>
> I tried hooking the base unit antenna to the center wire of coax that
> goes to our rooftop TV antenna but that didn't work.

It turns out that particular coax feed from the TV antenna is broken or
something. The antenna line was put in by the prior owner and I just
assumed it worked. Later, I tested by hooking directly to an old TV
and found it does NOT work.

Another room in the house has a working TV antenna connection, and this
is the one I'm now using.

Here's the steps I took.

1) Opened the receiver case and removed the original antenna.
2) Reamed a round hole in the case to take a solder lug coax terminal.
3) Installed the coax terminal: Soldered the antenna wire to the
solder lug for the center coax conductor. Soldered one end of a 20
gauge wire to the ground plane of the recevier. Wrapped the other end
around the shell of the coax terminal. (They probably make coax
terminals with two lugs but that was
not in my parts bin.) Tightened a coax nut around the wrapped portion.
4) Closed the case. Tested.

I found out from the FCC web site that the transmitter uses 315MHz, so
that's within the range of frequencies TV antennas must grab. We're
out in the mountains. Our TV antenna looks very directional, so I made
sure to point it at the mailbox to maximize reception. We are using
satelite TV now, so at least we can use the old antenna for something.

It works, but I've yet to see how dependable this is. Will post again
if warranted. I have an old Radio Shack UHF/VHF/FM amplifier kicking
around and
could always put it on in case the signal is still too weak.

--zeb

## 4340. Invitation

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-29 22:26:10 UTC
From: Goetz <goetz@goetz-von.com>
Message-ID: <cqvau2$fdk$2@titan.btinternet.com>
Source record: 84538

Invitation to join the fastest growing Two Way Radio Forum on the net.

Go to www.euronium.de

The Amateur and PMR Radio Forum.

G&#65533;etz.

## 4341. I just don't get it - yet?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-29 22:29:16 UTC
From: Ken Bessler <kg0wx@NOSPAMyahoo.com>
Message-ID: <W9GAd.11813$ph.8972@okepread01>
Source record: 84537

I'm trying to improve my 6m antenna situation.
The antenna has to be horizontaly polarized and
omnidirectional.

I'm currently using an inverted V @ 10' & 14w.
Last week the band opened up and I had a strong
SSB qso into northern Canada, a distance of about
1,450 miles and off the end of the antenna, to boot!

I'm thinking - heck - if I can do *that* with such a
minimal antenna, what would happen with a loop
or halo at 40'? I was thinking about getting a OA-50
from Par electronics but it dawned on me I could
save a lot of bucks if I just made a full wave loop.

I don't know the design of the OA-50 - would a
full wave loop perform better? I could make a
horizontal loop with support for <$10 easy.

Ken KG0WX

# 4342. Old Wives' Tales & Ground Rods

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-29 22:55:49 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cqvcll$md2$1@sparta.btinternet.com>
Source record: 84539

There are so many Old Wives' tales about ground rods that I feel impelled to correct some errors by re-stating a few elementary facts from my notebooks.

I am at present quite sober, not having imbibed for two days. I do, of course, take the prescribed hyper-tension pills.

The following applies to rods used for both lightning protection and for radio grounding purposes. It is assumed that rod length, or depth, is very, very short in terms of RF wavelength. It can even be forgotten the RF propagation velocity along conductors buried in the ground can be very much slower than the free-space velocity.

We are concerned, very simply, with the resistance in R ohms of the connection between a tiny electrode and the great mass of Mother Earth.

To gain an idea of the magnitudes involved it can be stated that the most simple electrode is of hemispherical shape impressed into the soil surface, which has a resistance of exactly -

R = S / Pi / D ohms, where -

S = Soil resistivity in ohm-metres, and -

D = Diameter of the hemispherical electrode in metres.

Soil resistivity is the resistance measured in ohms between two opposite faces of a 1-metre cube of the material. Which is the more practical reciprocal of the too-often used scientific measurement unit of conductivity. Conductivity sounds good!

Thus, a small hemisphere, 1-metre in diameter, impressed in the soil to its radial depth, with a typical soil resistivity of 100 ohm-metres, will have a moderately low resistance of 32 ohms. Now, like Kelvin, we can see what we are talking about.

Getting down to brass tacks - the resistance R of a ground rod, D metres in diameter, of length L metres, provided L > 5 * D, is approximately -

R = S / 2 / L * Ln( 4 * L / D ) ohms.

An approximation is good enough because nobody knows the value of their local ground resistivity anyway.

It will be noticed from the foregoing equation the resistance is almost entirely due to rod length and little to do with its diameter. So much for Old Wives' clever calculations about the surface area of rods in contact with the soil.

Practically the whole of the resistance is due to that thin layer of soil in contact with the rod and in its immediate vicinity. The soil beyond a distance equal to twice the depth of the rod has little effect on resistance R. At a distance the cross-sectional area of the current flowing through it is too large. The electrode, whatever its shape, behaves just as if it were a hemisphere with a radius roughly equal to its length.

Incidentally, the volts at the soil surface at a short distance from any electrode of any shape, due to a lightning stroke, can be calculated by asuming a hemispherical electrode. The current flowing away from the stroke always being in radial directions. The same applies to RF currents from a ground rod or the approximate centre of a collection of ground rods.

From similar similar reasoning, there is not much point in spacing ground rods much closer together than a distance equal to twice their depth for either lightning or RF grounding purposes.

Corrosion of copper sheathed or plated ground rods -

Because thin corrosion products have a far lower resistance than the soil in the immediate vicinity of a rod, and it is soil resistance in the immediate vicinity which predominates, the rod resistance whatever its material, steel or carbon even, can always be considered to be zero. It is always smaller than any other contributions to ground resistance except for the ignored rod resistance itself. So the foregoing simple equations still apply.

So although it may make you feel better, it is wasted effort to extract a ground rod merely to brighten up its appearance. Just allow a 1" diameter rod to rust away for years and years. The diameter was needed only to drive it into the ground. Its the electrical connection as viewed from the top which matters.

Having consumed 3/4 bottle of Californian, red, Blossom Hill, I am not quite so sober as I was when I first began this technical dissertation.

I hear in the news that more than 100,000 people have lost their lives and many more will die in the wake of the recent earthquake. Recent very similar figures of casualties incurred from continued USA use of weapons of mass-destruction in Iraq and Afganistan have hardly been mentioned. Military and political press censorship?

I wish all USA citizens and voters a very happy, prosperous and peaceful 2005. After all, you have the means of enforcing it!
---
Reg, G4FGQ

# 4343. Re: What's the deal? (was: Re: AM radio reception inside passenger ...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-29 23:39:44 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cqvf80$pf8$1@sparta.btinternet.com>
Source record: 84541

Wasn't Franklin that lunatic who used to walk around flying kites in the
middle of thunderstorms? And he now gets praised for it!

## 4344. Re: Good copper cleaner?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-29 23:39:44 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cqvf80$pf8$2@sparta.btinternet.com>
Source record: 84542

What's the matter with "Brasso".

There's also tins of "Duroglit", a wool impregnated with some chemical or other.

Both been around for 60 years or more.

# 4345. Re: Antennas vs Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-29 23:39:45 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cqvf80$pf8$3@sparta.btinternet.com>
Source record: 84540

Richard, in Airy R Bean you have met your match.
---
Punchinello.

# 4346. Re: AM radio reception inside passenger planes?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-30 00:44:01 UTC
From: Joel Kolstad <JKolstad71HatesSpam@Yahoo.Com>
Message-ID: <o-Kdnf7SMLTJ0k7cRVn-1A@comcast.com>
Source record: 84543
Cross-posted to: rec.travel.air,rec.radio.amateur.antenna,sci.electronics.equipment

>> "Richard Clark" <kb7qhc@comcast.net> wrote in message
>> news:mf2nr0hn2u850gube0gsuo07df1hs5ee1b@4ax.com...
>>> On Sat, 11 Dec 2004 14:11:44 -0800, "Ed Price" <edprice@cox.net>
>>> wrote:
>>>
>>> >You
>>> >are asking him to allow a potentially dangerous device to be operated
>> just
>>> >for your convenience and entertainment. Switch roles for just a
>> minute.

Why is an AM/FM radio receiver potentially more dangerous than laptop PCs, gameboys, DVD players, and other electronic devices that are used quite routinely on airplanes?

# 4347. Re: AM radio reception inside passenger planes?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-30 00:49:48 UTC
From: Joel Kolstad <JKolstad71HatesSpam@Yahoo.Com>
Message-ID: <veCdnfxckLUzzU7cRVn-jg@comcast.com>
Source record: 84544
Cross-posted to: rec.travel.air,rec.radio.amateur.antenna,sci.electronics.equipment

"Robert Baer" <robertbaer@earthlink.net> wrote in message
news:41CE87D3.1FF10F26@earthlink.net...
> "Faraday shield" to some degree is a myth.

I'd say it's more a case of people tending to think that various metal structures such as cars, airplnes, metal boxes, etc. are close to ideal 'Faraday shields' when, in actuality, they might only be a poor approximation. (It's this line of reasoning that usually flummuxes people when they try to shield a monitor that has a wavvy display from some extneral field with a steel box and find it's not very effective.)

> I have seen radars inside quonset huts track a *bird* flying a few
> miles away (thru the metal wall)!

Hmm... any idea if the folks inside weren't being exposed to far more radiation that what we'd typically consider safe? :-)

---Joel Kolstad

## 4348. Re: I just don't get it - yet?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-30 00:52:08 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cqvjfo$pg8$1@titan.btinternet.com>
Source record: 84545

The ONLY way you can obtain a horizontal, omni-directional, dipole antenna
is by using a "turnstile" with a 90-degree phase difference between the pair
of crossed dipoles.

You get a 3dB loss relative to a simple dipole, uniform in all directions.

Is this what you really want?

# 4349. Re: AM radio reception inside passenger planes?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-30 00:55:50 UTC
From: Joel Kolstad <JKolstad71HatesSpam@Yahoo.Com>
Message-ID: <GKednQr0XdOFz07cRVn-iw@comcast.com>
Source record: 84546
Cross-posted to: rec.travel.air,rec.radio.amateur.antenna,sci.electronics.equipment

"Ed Price" <edprice@cox.net> wrote in message
news:_mdAd.14884$8e5.14258@fed1read07...
> I was trying to be charitable in assuming that nobody would be so dumb as
> to fire up a multi-megawatt radar INSIDE a metal hut. Looks like you guys
> proved me wrong!

There's a Simpsons episode where Homer and Marge check out the house for
sale next door, and find that it has a very high end, contemporary kitchen
including a microwave oven big enough to walk in... something that Homer
immediately does, of course.

## 4350. Re: I just don't get it - yet?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-30 01:01:18 UTC
From: dplatt@radagast.org
Message-ID: <10t6kquro9akk6e@corp.supernews.com>
Source record: 84547

>The ONLY way you can obtain a horizontal, omni-directional, dipole antenna
>is by using a "turnstile" with a 90-degree phase difference between the pair
>of crossed dipoles.

How about an S-curve folded dipole, or a classic "Big Wheel" with
three roughly-full-wavelength piece-of-pie elements fed in parallel?

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

# 4351. Re: Good copper cleaner?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-30 01:03:04 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <mrk6t0teka83p5l39b5ju2b7276b8n8obk@4ax.com>
Source record: 84548

On Wed, 29 Dec 2004 23:39:44 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>What's the matter with "Brasso".
>
>There's also tins of "Duroglit", a wool impregnated with some chemical or
>other.
>
>Both been around for 60 years or more.
>

Tonight I tried a little Lea & Perrins Worcestershire Sauce on the
ground rod. Smells good enough to eat. I'll check it in the morning.

Bob
k5qwg

# 4352. Re: I just don't get it - yet?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-30 02:00:12 UTC
From: Dale Parfitt <par@parelectronics.com>
Message-ID: <MiJAd.9368$hc7.8573@trnddc06>
Source record: 84549

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:cqvjfo$pg8$1@titan.btinternet.com...
> The ONLY way you can obtain a horizontal, omni-directional, dipole antenna
> is by using a "turnstile" with a 90-degree phase difference between the
pair
> of crossed dipoles.
>
> You get a 3dB loss relative to a simple dipole, uniform in all directions.
>
> Is this what you really want?
>
> Hi Reg,
I can send you an AO (miniNEC) model of a triangular antenna that has a
better omni pattern than a turnstile- or better yet, go to W4RNL's site and
do a search under triangular omnis.

BTW, to the oriiginal poster:
a full wavelength loop does NOT have an omni pattern- its pattern is very
similar to a half wave dipole.

Dale W4OP

# 4353. Re: Antennas vs Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-30 02:30:54 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <spo6t0dorujogau5bejao4reoli1vr50j0@4ax.com>
Source record: 84550

On Wed, 29 Dec 2004 23:39:45 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:
>Richard, in Airy R Bean you have met your match.

Ah! Punchinello,

How generous by over half - but by only playing to the audience ;-)

I'm sure they love the droll irony of that comparable praise costing
either the deflation of vanity by reality, or ego's insufferable
elevation against hidden desire.

Truly a classic work of trollery in challenge....

I shall stand aside for the struggles between these Tritonic minnows.

73's
Richard Clark, KB7QHC

# 4354. Re: What's the deal? (was: Re: AM radio reception inside passenger ...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-30 02:49:39 UTC
From: Jack Painter <223bthp@cox.net>
Message-ID: <81KAd.39711$7p.34850@lakeread02>
Source record: 84551

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote

> Wasn't Franklin that lunatic who used to walk around flying kites in the
> middle of thunderstorms? And he now gets praised for it!

That was an experiment thousands of schoolteachers must dread, or rather
that it actually made the schoolbooks and includes artist renderings, in
case enterprising young minds wish to recreate this "experiment".
Frightening thought how many may have actually tried it, eh? ;-)

73,
Jack
Va Bch

# 4355. Re: What's the deal? (was: Re: AM radio reception inside passenger ...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-30 02:53:21 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cqvqj0$quo$1@hercules.btinternet.com>
Source record: 84552

My favourite technological American Hero is a name which I cannot remember at present and I seldom have much success with Google.

It was in the age of early chemical engineering and the manufacture of sulphuric acid. Sulphuric acid was, in the Victorian age, and still is, the foundation of chemical engineering. From the age of steam the progress of an industrial country could not advance without great quantities of sulphuric acid which was usable in the production of a vast range of other chemicals from fertilisers, explosives, medicines, battery acids, dyes and eventually micro-processor chips.

The person concerned was the usual ragged-trousers European who arrived penniless at the shores of America before they took fingerprints. He had some rudimentary chemical engineering experience obtained probably in France or Germany where sulphuric acid was already being manufactured in small quantities.

Manufacture was in small vats made with very pure thick lead. Lead is a metal relatively impervious to attack from sulphuric acid. But pure lead was a very expensive metal in those days. It probably still is.

To reduce the exorbitant manufacturing costs of sulphuric acid the person had the brilliant idea of using ridiculously cheap timber vats painted with ridiculously cheap coal tar. The whole USA chemical industry immediately boomed, eventually overtaking Germany, and expanded into all fields making the USA what it is at present - far and away the World's greatest and richest industrial nation.

All based on dirt-cheap timber and coal tar. What a pity USA presidents still have their brains lined with heavy lead, unable to walk and chew gum at the same time.

Praps someone will remind me of the person's name.
----
Reg.

# 4356. Re: Good copper cleaner?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-30 03:23:30 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cqvsbh$9f7$1@sparta.btinternet.com>
Source record: 84553

> Tonight I tried a little Lea & Perrins Worcestershire Sauce on the
> ground rod. Smells good enough to eat. I'll check it in the morning.
>
> Bob
> k5qwg
>
==========

Interesting to know Lea & Perrins Worcester Sauce is available in the USA.

I live in the next county to Worcestershire.

I cook for myself and use a small bottle in two or three weeks.

But as for your subsidiary use on ground rods I hope they're made of carbon.
Ordinary metals are less resistant to attack than my stomach lining.
----
Reg, G4FGQ

## 4357. Re: AM radio reception inside passenger planes?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-30 03:47:47 UTC
From: Dave VanHorn <dvanhorn@dvanhorn.org>
Message-ID: <MtidnfyW_MfQ507cRVn-ow@comcast.com>
Source record: 84554
Cross-posted to: rec.travel.air,rec.radio.amateur.antenna,sci.electronics.equipment

> Why is an AM/FM radio receiver potentially more dangerous than laptop PCs,
> gameboys, DVD players, and other electronic devices that are used quite
> routinely on airplanes?

The other devices may have circuits that incidentally radiate a little noise
in the aircraft VHF band.
A broadcast FM receiver almost certainly has an oscillator running by
design, in the band.
Where it lands in the aircraft band, is determined by where it's tuned to.

## 4358. Re: Good copper cleaner?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-30 04:00:35 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <oiu6t09moiisg67g85vi4ib18rti7rt72d@4ax.com>
Source record: 84555

On Thu, 30 Dec 2004 03:23:30 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>Interesting to know Lea & Perrins Worcester Sauce is available in the USA.

Hi Reggie,

Back in the 60s, a black comic by the name of Godfrey Cambridge used
the name as the punch line to a joke about one of his forbears (an
uncle perhaps) who was visiting in England. It seems he was served a
dish with that garnish and it was named upon his exclamation:
"Wus dis here sauce?"

73's
Richard Clark, KB7QHC

# 4359. Re: Antennas vs Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-30 04:12:38 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cqvv7m$bpt$1@sparta.btinternet.com>
Source record: 84556

Richard, I can only admire your adeptness at judging my motives for the intervention.

But you are not exactly correct. Let's await further developments - if any!

( I really do think the English and USA written languages are coming close together again. Welcome! All due to that modern invention - the Internet.)

( I understand the BBC Over-seas Service is widely heard in the USA - again over the Internet rather than the old-fashioned, beamed, short-wave radio waves.)

---
Reg.

# 4360. Re: What's the deal? (was: Re: AM radio reception inside passenger ...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-30 04:17:58 UTC
From: Jack Painter <223bthp@cox.net>
Message-ID: <WjLAd.39786$7p.5760@lakeread02>
Source record: 84557

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote
>
> My favourite technological American Hero is a name which I cannot remember
> at present and I seldom have much success with Google.
>
> It was in the age of early chemical engineering and the manufacture of
> sulphuric acid. Sulphuric acid was, in the Victorian age, and still is,
the
> foundation of chemical engineering. From the age of steam the progress of
an
> industrial country could not advance without great quantities of sulphuric
> acid which was usable in the production of a vast range of other chemicals
> from fertilisers, explosives, medicines, battery acids, dyes and
eventually
> micro-processor chips.
>
> The person concerned was the usual ragged-trousers European who arrived
> penniless at the shores of America before they took fingerprints. He had
> some rudimentary chemical engineering experience obtained probably in
France
> or Germany where sulphuric acid was already being manufactured in small
> quantities.
>
> Manufacture was in small vats made with very pure thick lead. Lead is a
> metal relatively impervious to attack from sulphuric acid. But pure lead
was
> a very expensive metal in those days. It probably still is.
>
> To reduce the exorbitant manufacturing costs of sulphuric acid the person
> had the brilliant idea of using ridiculously cheap timber vats painted
with
> ridiculously cheap coal tar. The whole USA chemical industry immediately
> boomed, eventually overtaking Germany, and expanded into all fields making
> the USA what it is at present - far and away the World's greatest and
> richest industrial nation.
>
> All based on dirt-cheap timber and coal tar. What a pity USA presidents
> still have their brains lined with heavy lead, unable to walk and chew gum
> at the same time.
>
> Praps someone will remind me of the person's name.
> ----
> Reg.

You might enjoy this site, Reg:

http://www.oldandsold.com/articles10/industry-trade-22.shtml

Cheers,

Jack
Va Bch

# 4361. Re: Good copper cleaner?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-30 04:31:55 UTC
From: Jack Painter <223bthp@cox.net>
Message-ID: <%wLAd.39846$7p.33702@lakeread02>
Source record: 84558

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote

> Interesting to know Lea & Perrins Worcester Sauce is available in the
USA.
>
> I live in the next county to Worcestershire.
>
> I cook for myself and use a small bottle in two or three weeks.
>
> But as for your subsidiary use on ground rods I hope they're made of
carbon.
> Ordinary metals are less resistant to attack than my stomach lining.
> ----
> Reg, G4FGQ

Lea & Perrins is the ONLY Worcestershre sauce! ;-)

Most of wouldn't waste it on ground rods, but I'm sure Bob thought that too
funny not to at least try.

Jack

# 4362. Re: Old Wives' Tales & Ground Rods

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-30 04:36:23 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41d385e0$1_2@127.0.0.1>
Source record: 84559

Reg Edwards wrote:
> I am at present quite sober, not having imbibed for two days.

Reg, you need to follow the advice given in Proverbs 31:6,7.
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

# 4363. Re: Old Wives' Tales & Ground Rods

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-30 07:46:23 UTC
From: "H. Adam Stevens, NQ5H" <NQ5H@ARRL.net>
Message-ID: <10t7cie6jqdcf8f@corp.supernews.com>
Source record: 84560

reg
have hole
paid good money for it today

have tower

have SteppIR 4 element beam
(which is assembled on tower top and kicks ass already at a mere 12 feet
tall.....
SteppIR folks have indeed built a better mousetrap.....

Have cement truck scheduled for tomorow

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:cqvcll$md2$1@sparta.btinternet.com...
>
> There are so many Old Wives' tales about ground rods that I feel impelled
> to
> correct some errors by re-stating a few elementary facts from my
> notebooks.
>
>
> I am at present quite sober, not having imbibed for two days. I do, of
> course, take the prescribed hyper-tension pills.
>
>
> The following applies to rods used for both lightning protection and for
> radio grounding purposes. It is assumed that rod length, or depth, is
> very,
> very short in terms of RF wavelength. It can even be forgotten the RF
> propagation velocity along conductors buried in the ground can be very
> much
> slower than the free-space velocity.
>
> We are concerned, very simply, with the resistance in R ohms of the
> connection between a tiny electrode and the great mass of Mother Earth.
>
> To gain an idea of the magnitudes involved it can be stated that the most
> simple electrode is of hemispherical shape impressed into the soil
> surface,
> which has a resistance of exactly -
>
>
> R = S / Pi / D ohms, where -
>

> S = Soil resistivity in ohm-metres, and -
>
> D = Diameter of the hemispherical electrode in metres.
>
> Soil resistivity is the resistance measured in ohms between two opposite
> faces of a 1-metre cube of the material. Which is the more practical
> reciprocal of the too-often used scientific measurement unit of
> conductivity. Conductivity sounds good!
>
>
> Thus, a small hemisphere, 1-metre in diameter, impressed in the soil to
> its
> radial depth, with a typical soil resistivity of 100 ohm-metres, will have
> a
> moderately low resistance of 32 ohms. Now, like Kelvin, we can see what
> we
> are talking about.
>
>
> Getting down to brass tacks - the resistance R of a ground rod, D metres
> in
> diameter, of length L metres, provided L > 5 * D, is approximately -
>
>
> R = S / 2 / L * Ln( 4 * L / D ) ohms.
>
>
> An approximation is good enough because nobody knows the value of their
> local ground resistivity anyway.
>
>
> It will be noticed from the foregoing equation the resistance is almost
> entirely due to rod length and little to do with its diameter. So much
> for
> Old Wives' clever calculations about the surface area of rods in contact
> with the soil.
>
>
> Practically the whole of the resistance is due to that thin layer of soil
> in
> contact with the rod and in its immediate vicinity. The soil beyond a
> distance equal to twice the depth of the rod has little effect on
> resistance
> R. At a distance the cross-sectional area of the current flowing through
> it
> is too large. The electrode, whatever its shape, behaves just as if it
> were
> a hemisphere with a radius roughly equal to its length.
>
>

> Incidentally, the volts at the soil surface at a short distance from any
> electrode of any shape, due to a lightning stroke, can be calculated by
> asuming a hemispherical electrode. The current flowing away from the
> stroke
> always being in radial directions. The same applies to RF currents from a
> ground rod or the approximate centre of a collection of ground rods.
>
>
> From similar similar reasoning, there is not much point in spacing ground
> rods much closer together than a distance equal to twice their depth for
> either lightning or RF grounding purposes.
>
>
> Corrosion of copper sheathed or plated ground rods -
>
>
> Because thin corrosion products have a far lower resistance than the soil
> in
> the immediate vicinity of a rod, and it is soil resistance in the
> immediate
> vicinity which predominates, the rod resistance whatever its material,
> steel
> or carbon even, can always be considered to be zero. It is always smaller
> than any other contributions to ground resistance except for the ignored
> rod
> resistance itself. So the foregoing simple equations still apply.
>
>
> So although it may make you feel better, it is wasted effort to extract a
> ground rod merely to brighten up its appearance. Just allow a 1" diameter
> rod to rust away for years and years. The diameter was needed only to
> drive
> it into the ground. Its the electrical connection as viewed from the top
> which matters.
>
>
> Having consumed 3/4 bottle of Californian, red, Blossom Hill, I am not
> quite
> so sober as I was when I first began this technical dissertation.
>
> I hear in the news that more than 100,000 people have lost their lives and
> many more will die in the wake of the recent earthquake. Recent very
> similar
> figures of casualties incurred from continued USA use of weapons of
> mass-destruction in Iraq and Afganistan have hardly been mentioned.
> Military and political press censorship?
>
> I wish all USA citizens and voters a very happy, prosperous and peaceful
> 2005. After all, you have the means of enforcing it!
> ----

> Reg, G4FGQ
>
>

# 4364. Re: What's the deal? (was: Re: AM radio reception inside passenger ...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-30 14:43:33 UTC
From: richardharrison@webtv.net
Message-ID: <215-41D41415-210@storefull-3256.bay.webtv.net>
Source record: 84561

Reg, G4FGQ wrote:
"Wasn`t Franklin that lunatic who used to walk around hlying kites in thunderstorms?"

Story is that Ben Franklin (see $100 bill for portrait) was looking around his house searching for a metal key to use as an attraction for lightning. (My neighbor says his kids have lost so many tools that his back yard is struck repeatedly in thunderstorms.) Ben thought he had mislaid a new key somewhere. When Ben asked his wife for it she told him to "go fly a kite". So Franklin showed that charge in a cloud was the same in nature as chsrge in a jar (an early capacitor).

Best regards, Richard Harrison, KB5WZI

# 4365. Re: I just don't get it - yet?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-30 15:04:11 UTC
From: Jim - NN7K <nn7kexk7zfg@NOSPAMsbcglobal.net>
Message-ID: <LNUAd.3991$wZ2.734@newssvr13.news.prodigy.com>
Source record: 84562

Check this antenna - equivelant of a 6 meter halo, by K0FF

http://www.qsl.net/k4pwo/sloop.htm

and, those are more like 1/2 wave loops (dipole), than
full wave loops (which are very high impedence-hard to feed).
but what you describe is why 6 meters is called the MAGIC BAND
(when its open, its OPEN)! Jim NN7K

Ken Bessler wrote:
> I'm trying to improve my 6m antenna situation.
> The antenna has to be horizontaly polarized and
> omnidirectional.
>
> I'm currently using an inverted V @ 10' & 14w.
> Last week the band opened up and I had a strong
> SSB qso into northern Canada, a distance of about
> 1,450 miles and off the end of the antenna, to boot!
>
> I'm thinking - heck - if I can do *that* with such a
> minimal antenna, what would happen with a loop
> or halo at 40'? I was thinking about getting a OA-50
> from Par electronics but it dawned on me I could
> save a lot of bucks if I just made a full wave loop.
>
> I don't know the design of the OA-50 - would a
> full wave loop perform better? I could make a
> horizontal loop with support for <$10 easy.
>
> Ken KG0WX
>
>
>

# 4366. Re: Good copper cleaner?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-30 15:34:58 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <ub78t0dh7s7mmhes8ep9pnu7vhs6ddjn4j@4ax.com>
Source record: 84563

On Wed, 29 Dec 2004 23:31:55 -0500, "Jack Painter" <223bthp@cox.net>
wrote:

>
>"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote
>
> > Interesting to know Lea & Perrins Worcester Sauce is available in the
>USA.
>>
>> I live in the next county to Worcestershire.
>>
>> I cook for myself and use a small bottle in two or three weeks.
>>
>> But as for your subsidiary use on ground rods I hope they're made of
>carbon.
>> Ordinary metals are less resistant to attack than my stomach lining.
>> ----
>> Reg, G4FGQ
>
>Lea & Perrins is the ONLY Worcestershre sauce! ;-)
>
>Most of wouldn't waste it on ground rods, but I'm sure Bob thought that too
>funny not to at least try.
>
>Jack
>

Finally, success at last!!

I tried the Lea & Perrins Worchestershire overnight on the corroded
ground rod. It did little but attract 2-inch cockroaches.

This morning, I brought out the heavy stuff: a mixture of vinegar,
lemon juice and salt, applied with a steel wool pad.

It still wasn't working; my VOM showed no continuity.

So, a trip to Lowes for Brasso and sandpaper.

The Brasso did nothing. But the sandpaper (#150 fine) seemed to do the
trick. Now my VOM shows continuity in the cleaned area of the rod.

I'll probably augment this old ground rod with a new one laid in a
horizontal ditch (got rock about 12" down), but at least the old rod
is working again.

Bob
k5qwg

# 4367. Re: I just don't get it - yet?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-30 16:11:02 UTC
From: Dale Parfitt <par@parelectronics.com>
Message-ID: <qMVAd.8076$1U6.2805@trnddc09>
Source record: 84564

"Jim - NN7K" <nn7kexk7zfg@NOSPAMsbcglobal.net> wrote in message
news:LNUAd.3991$wZ2.734@newssvr13.news.prodigy.com...
> Check this antenna - equivelant of a 6 meter halo, by K0FF
>
> http://www.qsl.net/k4pwo/sloop.htm
>
> and, those are more like 1/2 wave loops (dipole), than
> full wave loops (which are very high impedence-hard to feed).
>
Full wave dipoles are hi Z. Full wave loops are in the vicinity of 120 Ohms-
from memory- but not omnidirectional when mounted horizontally or
vertically.

Dale W4OP

# 4368. HAMSTIK DIPOLE

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-30 16:15:01 UTC
From: "Russ J." <amservice@sbcglobal.net>
Message-ID: <9QVAd.4178$Zg1.3491@newssvr31.news.prodigy.com>
Source record: 84566

Has anyone used these mobile antennas in the dipole mode? How about a
design for a multiband array on a small rotor?

TNX

--
Russell Jankowski
amservice@sbcglobal.net

A.M. SERVICE
440-333-4923

## 4369. Re: Good copper cleaner?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-30 16:22:17 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <33iofcF3tq3g6U1@individual.net>
Source record: 84565

It would seem increasingly the case in Britland that the
only good clean copper is a dead one.

Blakelock and the like are public justice in reparation for the
number of people killed by the plods; plods who then get off
scot-free.

"Bob Miller" <NOSPAM@neosoft.com> wrote in message
news:ub78t0dh7s7mmhes8ep9pnu7vhs6ddjn4j@4ax.com...

# 4370. Re: more auctions busted today

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-30 16:45:02 UTC
From: N8WWM <sadie106@juno.com>
Message-ID: <41d4308e@x-privat.org>
Source record: 84567
Cross-posted to: rec.radio.cb,rec.radio.amateur.antenna

MY GRAND PAPPY WAS RUFUS

THEY CALL ME A DUFUS

MY PAPPY WAS BOBBY

I BOBBED ON HIS KNOBBY
>
"Psychiatrist to keyclowns" <keyklonzrnutjobs@yahoo.com> wrote in message
news:1104396638.617570.84480@c13g2000cwb.googlegroups.com...
> As if you would know, knob bobber.
>

# 4371. Re: I just don't get it - yet?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-30 17:05:41 UTC
From: Allodoxaphobia <bit-bucket@config.com>
Message-ID: <slrnct8db4.gt2.bit-bucket@shell.config.com>
Source record: 84568

On Thu, 30 Dec 2004 16:11:02 GMT, Dale Parfitt wrote:
>
> "Jim - NN7K" <nn7kexk7zfg@NOSPAMsbcglobal.net> wrote in message
> news:LNUAd.3991$wZ2.734@newssvr13.news.prodigy.com...
>> Check this antenna - equivelant of a 6 meter halo, by K0FF
>>
>> http://www.qsl.net/k4pwo/sloop.htm

See, also, my home-brew 6M (mobile) halo web pages:

http://jonz.net/W3DHJ/6mhalo.html

>> and, those are more like 1/2 wave loops (dipole), than
>> full wave loops (which are very high impedence-hard to feed).
>>
> Full wave dipoles are hi Z. Full wave loops are in the vicinity of
> 120 Ohms- from memory- but not omnidirectional when mounted horizontally
> or vertically.
>
> Dale W4OP

...and, then you stack two of'em.
Bingo!
60 Ohms.
A 'perfect' match -- for selected definitions of "perfect".

73
Jonesy -- whose 3el 6M yagi is omni-directional much of the time...
--
| Marvin L Jones | jonz | W3DHJ | linux
| Gunnison, Colorado | @ | Jonesy | OS/2 __
| 7,703' -- 2,345m | config.com | DM68mn SK

# 4372. Re: What's the deal? (was: Re: AM radio reception inside passenger ...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-30 18:41:40 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cr1i54$c0k$1@sparta.btinternet.com>
Source record: 84569

"Jack Painter" wrote> You might enjoy this site, Reg:
>
> http://www.oldandsold.com/articles10/industry-trade-22.shtml
>
================================

Jack, I enjoyed the whole site. Thanks for your introduction.

So the production of sulphuric acid began in the USA around the time of the French Revolution and the guillotine. The very first enterprising production engineer, John Harrison, who must have been aware of the most serious, Earth-shaking, consequences of events in Paris, clearly had other more useful, less destructive yet beneficial, things to think about.

I just love linking unrelated facts together.

But Harrison is not the name of the person on my mind who transformed the USA chemical industry to one based on sulphuric acid, timber planks and coal tar. I am under the impression he was of a later generation. Out of the canal and barge-horse age and into the age of Watt's condensing steam engine.

But what's in a name anyway?

I sometimes think that the relatively few engineers between 1790 and 1890 performed greater engineering feats than the many who followed them into the present age of electronic and genetic engineering. They devoted the whole of their lives to their work.

As for us poor souls, the best we can manage is haggling about imaginary SWR and conjugate matches which were all sorted out 120 years back. But it's all good fun.

Cheers, Reg.

## 4373. Re: Good copper cleaner?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-30 19:11:02 UTC
From: Me <Me@shadow.orgs>
Message-ID: <Me-E8380D.10112330122004@netnews.worldnet.att.net>
Source record: 84570

In article <cqvsbh$9f7$1@sparta.btinternet.com>,
"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote:

> Interesting to know Lea & Perrins Worcester Sauce is available in the USA.

It is available in any Food Store in the country, and most food eateries.

Me who use it to marinate my Dead Cooked Cow.

# 4374. Re: HAMSTIK DIPOLE

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-30 19:56:52 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <41d45d9b$1_2@127.0.0.1>
Source record: 84571

Russ J. wrote:
> Has anyone used these mobile antennas in the dipole mode? How about a
> design for a multiband array on a small rotor?

Hamstick dipoles work pretty well for 20m-10m. Not well for 40m
and terrible for 75m (unless the application is a special one
like the portable NVIS application in the latest QST).
--
73, Cecil http://www.qsl.net/w5dxp

-----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000 Newsgroups
---= East/West-Coast Server Farms - Total Privacy via Encryption =---

# 4375. Re: What's the deal? (was: Re: AM radio reception inside passenger ...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-30 20:21:41 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <h736t01ufm7tn7cabcbcb675725squhqbl@4ax.com>
Source record: 84472

On Thu, 30 Dec 2004 18:41:40 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>based on sulphuric acid, timber planks and coal tar

Hi Reggie,

I can see why you would have such trouble with Google in this regard.
The words tar and sulphuric acid would lead to a jillion pages about
creosote production and the words wood and sulphuric acid would lead
to a mega-jillion pages about paper production. I spent a lot of time
spilling H2SO4 on me while measuring the K and Kappa of paper.

Anyway, it seems that lead kiln towers (upwards to 5 stories tall)
were used in acid production well into the mid century:
http://www.ul.ie/~childsp/CinA/Issue61/TOC20_ChemClassics.html

Some odd facts:
In 1746, John Roebuck established the lead chamber process,

In 1831, the modern Contact Process was patented by Peregrine
Phillips, a British vinegar merchant

73's
Richard Clark, KB7QHC

# 4376. Re: dc grounding on 25ft trap vertical ant 10m-80m

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-30 21:13:20 UTC
From: kilocycles**@**yahoo.com
Message-ID: <inr8t017i4qbo9a5bnsjvq4j8s7s18m2as@4ax.com>
Source record: 84473

Great work Charlie!
73,
Ted KX4OM

On Wed, 29 Dec 2004 00:05:15 -0600, "Charlie" <charlie@aol.com> wrote:

>Just recently installed a Hustler 4-BTV ground mounted vertical. I added 20
>tuned radials on 10,15,and 20M each for a total of 60 tuned radials. I also
>added 12 tuned radials on 40M. I was lazy and bought them from DX
>Engineering where I also got their stainless steel ground radial plate and
>the nifty tilt-over mount for the 4-BTV (and other verts as well). I did a
>little tweaking on the 4-BTV today and the tilt over was a breeze to
>use..what a treat to be able to complete an antenna tweak in about 2 minutes
>total time. Rig is ICOM 746 PRO and I am working all the DX I can hear.
>
>www.dxengineering.com
>
>Photos and stuff on my site listed below.... 73 / DX

# 4377. Re: Old Wives' Tales & Ground Rods

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-30 21:36:50 UTC
From: Old Ed <eXseniorsDeleteThisAndTheX@earthlink.net>
Message-ID: <Sx_Ad.12863$RH4.4302@newsread1.news.pas.earthlink.net>
Source record: 84474

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:cqvcll$md2$1@sparta.btinternet.com...
>
> <snip>
>
> I am at present quite sober, not having imbibed for two days. I do, of
> course, take the prescribed hyper-tension pills.
>
> <snip>
>
> Having consumed 3/4 bottle of Californian, red, Blossom Hill, I am not
> quite so sober as I was when I first began this technical dissertation.
>
> I hear in the news that more than 100,000 people have lost their lives
> and many more will die in the wake of the recent earthquake. Recent
> very similar figures of casualties incurred from continued USA use of
> weapons of mass-destruction in Iraq and Afganistan have hardly been
> mentioned. Military and political press censorship?
>
> I wish all USA citizens and voters a very happy, prosperous and
> peaceful 2005. After all, you have the means of enforcing it!
>
> ----
> Reg, G4FGQ
>
Reg, this may come as a surprise to you, but most Americans do NOT
appreciate vicious and absurd leftist slanders directed at our country.
(This is true even though some of our own citizens engage in similar
antics.) So I have to reject your New Year's wishes, pleasant though
they are. You might do well to respect your body a bit more vis-a-vis
what you ingest. There seems to be something hallucinatory in the mix.
BTW, who do you plan to call when the terrorists put the UK in their
crosshairs... the French?

This may also surprise you: Unlike WWII (in both of our countries),
our media is almost completely free to give aid and comfort to our
enemies via anti-US reports and propaganda; and since the Left is over-
represented in said media, they rarely miss an opportunity to do so.

But to close on a more positive note, many Americans greatly appreciate
Tony Blair's very courageous support. I do, and I will keep it in mind
when deciding which side of the channel to spend tourist $.

Ed

# 4378. Re: Need to buy sheets of fiberglass insulation

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-30 22:05:40 UTC
From: wm2f <wm2f@pics.com>
Message-ID: <1104444340.793270.34710@c13g2000cwb.googlegroups.com>
Source record: 84475

Ignoramus25901 wrote:
> I want to buy like 1/4" or 3/8" thick sheets of regular fiberglass
> insulation like what they use on circuit boards. I will need to make
> round plugs out of it. Any idea where I could find it?
>
> igor
How much do need? I have some 1/4 inch material used in high voltage
transformers.
Email: wm2f@arrl.net

# 4379. Re: Antennas vs Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-30 22:09:37 UTC
From: "J. Teske" <jdteske@comcast.net>
Message-ID: <fvg8t0t5jv4knjdvsq3n8tns5nj16j5n51@4ax.com>
Source record: 84476

On Thu, 30 Dec 2004 04:12:38 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>Richard, I can only admire your adeptness at judging my motives for the
>intervention.
>
>
>But you are not exactly correct. Let's await further developments - if
>any!
>
>
>( I really do think the English and USA written languages are coming close
>together again. Welcome! All due to that modern invention - the
>Internet.)
>
>( I understand the BBC Over-seas Service is widely heard in the USA - again
>over the Internet rather than the old-fashioned, beamed, short-wave radio
>waves.)
>

We can even get BBC domestic news here on cable television.

Jon W3JT
>----
>Reg.
>

# 4380. Re: What's the deal? (was: Re: AM radio reception inside passenger ...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-30 22:22:01 UTC
From: richardharrison@webtv.net
Message-ID: <17793-41D47F89-588@storefull-3252.bay.webtv.net>
Source record: 84477

Reg, G4FGQ wrote:
"My favorite technological American Hero is a name which I cannot remember at present and I seldom have much success with Google."

The very successful American producer of sulphuric acid shares a name made famous by an English carpenter who won the prize offered for the first chronometer or orher means accurate enough to determine one`s position at sea. John Harrison was that carpenter. His inspired and determined work is honored at the British National Maritime Museum at Greenwich. The scientific community would not believe that the carpenter clod had succeeded, Besides, the instrument didn`t look like a chronometer. Ir looked more like a pocket watch. So, Harrison was only able to collect his entire prize after an audience with the king who agreed he had won. The hing declared: "By God, you shall have your prize!"

Best regards, Richard Harrison, KB5WZI

# 4381. Re: Antennas vs Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-30 22:55:33 UTC
From: richardharrison@webtv.net
Message-ID: <17794-41D48765-197@storefull-3252.bay.webtv.net>
Source record: 84479

Reg, G4FGQ wrote:
"(I understand the BBC Over-seas Service ie widely heard in the USA - again over the internet rather than the old-fashioned short-wave radio waves.)"

I have not tried the BBC via the internet. But I do try to warch its Evening News Program on PBS Television every night. It`s simply the best coverage if not the most pictures. How much fire-footage do we really need?

Best regards, Richard Harrison, KB5WZI

# 4382. Re: Need to buy sheets of fiberglass insulation

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-30 23:07:31 UTC
From: kelly@dvol.com
Message-ID: <1104448051.099538.269290@z14g2000cwz.googlegroups.com>
Source record: 84478

Ignoramus25901 wrote:
> I want to buy like 1/4" or 3/8" thick sheets of regular fiberglass
> insulation like what they use on circuit boards. I will need to make
> round plugs out of it. Any idea where I could find it?

These folks have a wide variety of fiberglass sheets & shapes.
http://www.mcmaster.com/

> igor

w3rv

# 4383. HHH never went anywhere!

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-31 00:53:05 UTC
From: "O.McDonald" <oeieio@hotmail.com>
Message-ID: <Rp1Bd.12632$d5.108889@newsb.telia.net>
Source record: 84480
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.equipment,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors

Hi all,
I received e-mail this evening telling me that it is nice to have Harry's Homebrew Homepages back again!! They never went anywhere. I know that the number of visitors has declined, but I am still very much alive and kicking.

The URL is http://web.telia.com/~u85920178/

I had assumed that http://web.telia.com/~u85920178/ was so difficult to remember that a few visitors had forgotten me, but over last year I have got a new messageboard at http://amazingforums.com/forum2/SM0VPO/forum.html and introduced a couple of new projects, including a 400mW 88-108MHz PA (works well at 50MHz, 70MHz and 144MHz), and a VHF gain antenna, with calculator, that can be built and tested within about 15 minutes (50MHz to 900MHz - works well on 144-432MHz and 446MHz).

My e-mail address sm0vpo(at)home(dot)se got100's of messages each time I logged on: 95% SPAM. I filled the mailbox and deleted the account from Outlook. After a year of messages bouncing I hope the spammers will have moved on and I can use it again. In the meantime you can write to me on oeieio(at)hotmail.com or the old trusty harryvpo(at)hotmail.com (if the SPAM there continues I may close harryvpo).

New projects for the new year? Yes. Loads of ideas, some already in progress, including:
- Article about static electricity - will include a bit of humour
- Stereo encoder
- Tuneable VHF NBFM Receiver for 145-156MHz
(or any 1MHz chunk from 50MHz to 500MHz)
- Tuneable VHF NBFM transmitter (---ditto---)
- Practical antenna info - how-to, with photo's
- Soldering video (15 minutes VCD) still on the list

BR Harry

# 4384. Antenna building questions

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-31 01:19:44 UTC
From: stryped@hotmail.com
Message-ID: <1104455984.838298.225650@z14g2000cwz.googlegroups.com>
Source record: 84481

I am interested i building my own antennas like to start with a 2meter dipole.
My questions is, say you have a plan that says to use 1/2 inch copper. How do you know what will happen if you use thicker material like 3/4 inch tubing? Is there a formula that shows what the effect will be? Or maybe efen smaller diameter? Or what if you use solid material instead of hollow tubing.

What if you use the same diamter but a different material, such as stainless steel instead of copper or aluminum instead of copper? Please forgive these questions if they seem basic as I am a beginner. My guess is the thickness of the element is not as important as the spacing between elements but this only can be true to a point. I mean for arguments sake what if you used large sewer pipe? I would guess that would not work too well.

## 4385. best low dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-31 01:29:04 UTC
From: ml <m@di.net>
Message-ID: <m-E5599F.20290430122004@news.verizon.net>
Source record: 84482

i am going to build a dipole for some travels

i am sure i won't be able to put it up much higher than i can reach
easily lets say ten ft

whats best a carolna windom or a g5rv?

i'll be stringing it between some trees won't have the option of
'throwing' etc to get into branches only what i can direct reach
10ft max height of ground

## 4386. balun polarity?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-31 01:34:01 UTC
From: ml <m@di.net>
Message-ID: <m-95B3A2.20340130122004@news.verizon.net>
Source record: 84483

i just got a vangordon 1 1 balun w/ear loops and pl259

how can idetermine which 'ear' is + and or - ? my ohmeater shows same
for both so obv that not a good test

# 4387. Re: Need to buy sheets of fiberglass insulation

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-31 02:57:29 UTC
From: kelly@dvol.com
Message-ID: <1104461849.951226.29090@z14g2000cwz.googlegroups.com>
Source record: 84484

Ignoramus25901 wrote:
> On 30 Dec 2004 15:07:31 -0800, kelly@dvol.com <kelly@dvol.com> wrote:
> >
> > Ignoramus25901 wrote:
> >> I want to buy like 1/4" or 3/8" thick sheets of regular fiberglass
> >> insulation like what they use on circuit boards. I will need to
make
> >> round plugs out of it. Any idea where I could find it?
> >
> > These folks have a wide variety of fiberglass sheets & shapes.
> > http://www.mcmaster.com/
>
> thanks, their will call department is only 30 minutes away from me.

Lucky YOU! I wish I was only a half hour away from McMaster-Carr, I have to settle for Home Despot which is basically useless for ham purposes. Or wait overnite for a shipment from McM-C. Which is almost always worth the wait.

w3rv

# 4388. Re: Antenna building questions

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-31 02:59:47 UTC
From: Bob Bob <bcnntp@optusnet.com.au>
Message-ID: <3urea2-kbj.ln1@p400bob.lse.com.au>
Source record: 84486

Yes there is a formula. Generally speaking the larger the diameter in respect to the length, the shorter the antenna is overall. I dont believe there is any difference between solid core and air core when it comes to calculating the length. Types of material do have an effect but in my experience you can ignore it.

The length is also affected by other nearby objects and ground. Your feeding system (where the coax connects) can also affect it. Two halfwaves in phase for example will tend to be shorter than one by itself.

You can also make a slot antenna. This is a sheet of metal with a rectangular piece cut out and the feed at the middle at each side. From memory these antennas need to have about 10% longer length than a halfwave. A sewer pipe will also work fine.

You can certainly look up the formula on Google etc.

If you are building a simple dipole its not going to be too critical anyway. For the diameters you specified I'd subtract maybe 1/8" as a starting point.

Try experimenting!

Cheers Bob VK2YQA

stryped@hotmail.com wrote:
> I am interested i building my own antennas like to start with a 2meter
> dipole.
> My questions is, say you have a plan that says to use 1/2 inch copper.
> How do you know what will happen if you use thicker material like 3/4
> inch tubing? Is there a formula that shows what the effect will be? Or
> maybe efen smaller diameter? Or what if you use solid material instead
> of hollow tubing.
>
> What if you use the same diamter but a different material, such as
> stainless steel instead of copper or aluminum instead of copper?
> Please forgive these questions if they seem basic as I am a beginner.
> My guess is the thickness of the element is not as important as the
> spacing between elements but this only can be true to a point. I mean
> for arguments sake what if you used large sewer pipe? I would guess
> that would not work too well.
>

# 4389. Re: What's the deal? (was: Re: AM radio reception inside passenger ...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-31 03:03:31 UTC
From: richardharrison@webtv.net
Message-ID: <17793-41D4C183-624@storefull-3252.bay.webtv.net>
Source record: 84488

Jack Painter wrote:
"Scientists have now shown that blunt-tipped air terminals are attached by lightning significantly higher frequency than sharp rods are."

I would have expected that sharp-pointed rods would be struck more often.

My CRC "Handbook of Chemistry and Physics" starts its coverage of "Electricity and Magneyism with a page on Spark Gap Voltages. In every case for a given breakdown voltage, the gap must be substantially wider when the electrodes are needle-points than when they are spheres. For example: With a voltage across the electrodes of 5 KV, the gap space between needle-points needed to prevent a spark is 0.42 cm. The gap between 5-cm sphheres is 0.15 cm under the same conditions. Much closer before sparking points obviously means sharp points engourage breakdown of the air between the points, while spherical (blunt) spark-gap electrodes discourage the spark.

It`s been said that if the chsrges dont pile op at the pointed end of a conductor, it would not have an equipotential surface as is required by the conductivity ("College Physics" by Franklin Miller, Jr.

Best regards, Richard Harrison, KB5WZI

# 4390. Re: balun polarity?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-31 03:05:55 UTC
From: ml <m@di.net>
Message-ID: <m-355140.22055430122004@news.verizon.net>
Source record: 84485

In article <gdd9t09qtuhkrf9e3vi742gfp4khh8kggv@4ax.com>,
Bill Turner <noway@nohow.com> wrote:

> On Fri, 31 Dec 2004 01:34:01 GMT, ml <m@di.net> wrote:
>
> >i just got a vangordon 1 1 balun w/ear loops and pl259
> >
> >
> >how can idetermine which 'ear' is + and or - ? my ohmeater shows same
> >for both so obv that not a good test
> _____________________________________________________
>
> Hold it with the label side facing you and point it toward the full
> moon. The "ear" on the left is + and the other is -. Or is it the
> other way? I forget. Actually, it's AC so there is no polarity.

no plarity? so if i am making a dipole that says make the + side say
88ft long(aka rf hot)) off the balun, and the - rf ground side say 44ft
long

your saying making either terminal off the balun 44 or 88 ft long is the
same? and would have exactly same effect??

home come the back of my tuner has rf hot (+) on it?

just a bit confused

## 4391. long wire counterpoise vs gnd

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-31 03:10:04 UTC
From: ml <m@di.net>
Message-ID: <m-1BB0FA.22100430122004@news.verizon.net>
Source record: 84487

what is the difference in effeciency between a longwire off the back of my tuner, with

a) counterpoise wires from the rf gnd terminal and

b) ground connected to the rf gnd terminal

# 4392. Antenna impedance analyzer comparison

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-31 03:46:45 UTC
From: tf3kx@simnet.is
Message-ID: <cc4f4620.0412301946.274e77dc@posting.google.com>
Source record: 84489

Hi - I am looking for an impedance analyzer. Primarily for antenna measurements (only 1,8-30 MHz) and secondarily for misc. lab measurements (L,C,Q measurements, signal generation, etc.). The possibilities I have been looking at are (in no particular order, prices approximate):

a) MFJ-259B ($300)
b) MFJ-269 ($220)
c) AEA VIA ($600)
d) Autek VA1 ($200)
d) Micro908 kit from AmQRP ($210)
e) N2PK Vector Network Analyzer project ($150)

At first glance I have the following points/questions:

- Does MFJ-269 offer anything over 259B in addition to VHF/UHF?
- W8WWV tests (web) don't indicate that AEA VIA performs better than the MFJs.
- Micro908 is new. Any experiences, comments on impedance accuracy?
- N2PK may be the most accurate(?) but needs a PC and involved construction.
- Any comments on the Autek?

All suggestions are appreciated, based on experience and technical quality.

73s de Kristinn, TF3KX

# 4393. Re: Antennas vs Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-31 05:24:17 UTC
From: SideBand <AINO8SPAMW@cac.net>
Message-ID: <5o5Bd.4289$Mw3.3167@newssvr31.news.prodigy.com>
Source record: 84490

Jim wrote:
> From Kraus' 'Antennas', first edition, footnote on page 1:
>
> In its zoological sense, and antenna is the feeler, or organ of touch, of an
> insect. According to usage in the United States the plural of "insect
> antenna" is "antennae," but the plural of "radio antenna" is "antennas".
> However, the usage in England makes no distinction, the plural of both
> "insect" antenna" and "radio antenna" being "antennae."
>
>
> **********
>
> So for those not native to the USA or England, it depends on where your
> English teaher came from, I guess.
>
>
> Jim
> N8EE
>
>
>
So what's the plural of Hippopotamus?

# 4394. Decoupling coax transmission line

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-31 05:35:36 UTC
From: Charlie <charlie@earthlink.com>
Message-ID: <10t9p9h2iou90fa@news.supernews.com>
Source record: 84491

I have 50ft of 9914f feeding a ground mounted 4-BTV. After a little tweaking I have advertised swr across the 4 bands. (1.6:1 or less). The 4-BTV instructions recommend a coaxial choke for "de-coupling the transmission line".

I would like to be able to do some kind of analysis to see if I really need to do this or not. Also with buried coax if I did so would the coax choke get buried too? They (Hustler) recommend 10 turns of coax on a 6 inch form. I am really pleased with the station so far ( about a week old!) and cannot see any symptoms that I need this choke. I have a 6ft ground rod about 2 ft from the rig and all is well best I can tell. What would some of the symptoms be if I needed this rf choke?

TY
--

Charlie
Ham Radio - AD5TH
www.ad5th.com

# 4395. Re: What's the deal? (was: Re: AM radio reception inside passenger...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-31 06:25:44 UTC
From: Jack Painter <223bthp@cox.net>
Message-ID: <Jh6Bd.2373$622.747@lakeread02>
Source record: 84492

"Richard Harrison" <richardharrison@webtv.net> wrote

> Jack Painter wrote:
> "Scientists have now shown that blunt-tipped air terminals are attached
> by lightning significantly higher frequency than sharp rods are."
>
> I would have expected that sharp-pointed rods would be struck more
> often.

Hi Richard, yes, you and Ben Franklin agreed on that. Modeling examples you cited below appear to be incorrect for lightning, similar to how modeling for ocean waves cannot be done in a bathtub, and even a swimming pool does not closely replicate the action of waves in a large body of water. The experiments and the conclusions offered by the blunt-tip lightning rod tests were peer reviewed, are repeatable, and are being further studied. Their conclusions describe behavior that was not expected or explainable by current modeling. However it is easy to rocket-trigger lightning and this is being done on a daily basis, so a few thousand repeatable findings should soon arrive at a more permanent conclusion. Whether or not that is explainable in terms that classroom scientists can model remains to be seen. An awful lot of engineers have accepted the findings already, and specify blunt-tip rods on new construction. The same cannot be said about other questionable and unrepeatable theory such as charge transfer systems and lightning charge dissipators. Their popularity relies soley on the ability of snake-oil salesman conning a confused public.

73,
Jack Painter
Virginia Beach, Virginia

>
> My CRC "Handbook of Chemistry and Physics" starts its coverage of
> "Electricity and Magneyism with a page on Spark Gap Voltages. In every
> case for a given breakdown voltage, the gap must be substantially wider
> when the electrodes are needle-points than when they are spheres. For
> example: With a voltage across the electrodes of 5 KV, the gap space
> between needle-points needed to prevent a spark is 0.42 cm. The gap
> between 5-cm sphheres is 0.15 cm under the same conditions. Much closer
> before sparking points obviously means sharp points engourage breakdown
> of the air between the points, while spherical (blunt) spark-gap
> electrodes discourage the spark.
>
> It`s been said that if the chsrges dont pile op at the pointed end of a
> conductor, it would not have an equipotential surface as is required by
> the conductivity ("College Physics" by Franklin Miller, Jr.

>
> Best regards, Richard Harrison, KB5WZI
>

# 4396. Re: Decoupling coax transmission line

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-31 06:26:37 UTC
From: K7ITM <k7itm@aol.com>
Message-ID: <1104474397.565834.323850@c13g2000cwb.googlegroups.com>
Source record: 84493

If the coax is buried, you should not need any further decoupling. Any RF current on the outside of the coax should end up amost entirely on the ground.

I once had a 4BTV roof-mounted and didn't have many radials on it. I didn't need decoupling for most bands, but 10 meters was downright awful with high RF at the transmitter. I solved it by winding a few turns of the coax to get a choke that was self-resonant at 10 meters...I seem to recall that I might have actually put a little extra capacitance across the coil to tune it, but it was a long time ago.

If you put a neon light next to your coax near the transmitter and it lights up when the transmitter is sending power to the antenna, it's an indication you have lots of RF on the outside of your coax, and decoupling is in order. You can do the same thing with greater sensitivity using a small coil feeding a field strength meter...high fields near the coax indicate current on the outside of the coax.
Cheers,
Tom

# 4397. Re: Decoupling coax transmission line

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-31 06:35:45 UTC
From: Charlie <charlie@earthlink.com>
Message-ID: <10t9sq7r3jk3bf8@news.supernews.com>
Source record: 84494

Thanks Tom that was a great reply. I was totally unaware that burying the coax had that extra benefit. Adding the 75 meter resonator tomorrow and will see how that affects things. Even without the resonator I hear DX stations on 75M at night..

I do have quite few tuned radials with 20 on 10,15, and 20M respectively and 12 on 40m. I really do not room for any 75M radials. Hope I won't need them. With over 50 inches of rain a year and the other 72 radials maybe I won't...

THX again - 73 / DX

--

Charlie
Ham Radio - AD5TH
www.ad5th.com
Live Blues Music
www.492acousticblues.com

"K7ITM" <k7itm@aol.com> wrote in message
news:1104474397.565834.323850@c13g2000cwb.googlegroups.com...
> If the coax is buried, you should not need any further decoupling. Any
> RF current on the outside of the coax should end up amost entirely on
> the ground.
>
> I once had a 4BTV roof-mounted and didn't have many radials on it. I
> didn't need decoupling for most bands, but 10 meters was downright
> awful with high RF at the transmitter. I solved it by winding a few
> turns of the coax to get a choke that was self-resonant at 10
> meters...I seem to recall that I might have actually put a little extra
> capacitance across the coil to tune it, but it was a long time ago.
>
> If you put a neon light next to your coax near the transmitter and it
> lights up when the transmitter is sending power to the antenna, it's an
> indication you have lots of RF on the outside of your coax, and
> decoupling is in order. You can do the same thing with greater
> sensitivity using a small coil feeding a field strength meter...high
> fields near the coax indicate current on the outside of the coax.
> Cheers,
> Tom
>

# 4398. Re: best low dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-31 08:23:26 UTC
From: Rick Frazier <rickf@rickfrazier.com>
Message-ID: <41D50CB4.C57E7836@rickfrazier.com>
Source record: 84495

If you can only get the antenna up 10 feet, forget about the carolina windom. It relies on the vertical section, and unless you can get the antenna high enough so the vertical section is above ground, the antenna is miserable to live with. Even when the vertical section is all vertical (the isolator at the bottom of the vertical section is near the ground) the antenna doesn't perform as I think it should. I have a 160 carolina windom, and with the short end at 40 feet, the long end needs to be at least ten feet off of the ground before the antenna starts to work well. If the long end is lower than that, the isolator at the bottom of the vertical section nearly touches the ground, and swr gets worse and the low swr points move out of the ham bands...

I've found that some monofilament fishing line and a few sinkers can be invaluable for getting a temporary antenna up higher than I can reach... There are usually some sort of objects (trees, buildings, poles, etc) that can be used to get an antenna up a bit if you are using monofilament to hoist the ends up. I've got away with all sorts of temporary antennas in some pretty unlikely places, using little more than some fishing line and 24 gauge insulated wire. 30 gauge would be even better, as it's nearly invisible, but it tends to be too fragile for my hoisting techniques... Your mileage may vary...

Thanks
--Rick AH7H

ml wrote:

> i am going to build a dipole for some travels
>
> i am sure i won't be able to put it up much higher than i can reach
> easily lets say ten ft
>
> whats best a carolna windom or a g5rv?
>
> i'll be stringing it between some trees won't have the option of
> 'throwing' etc to get into branches only what i can direct reach
> 10ft max height of ground

## 4399. Re: balun polarity?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-31 09:34:37 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <ZxVY1wHt0R1BFA2z@ifwtech.co.uk>
Source record: 84496

ml wrote:
>i just got a vangordon 1 1 balun w/ear loops and pl259
>
>
>how can idetermine which 'ear' is + and or - ?

You can connect the "balanced" terminals either way around. That's the
whole point of having a balun!

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

# 4400. Re: HAMSTIK DIPOLE

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-31 10:34:22 UTC
From: Radio Man <puns@verizon.net>
Message-ID: <OW9Bd.6871$Y57.4382@trnddc08>
Source record: 84497

Can one use open ladderline with a 20 mtr hamstick & the appropriate
tuner & work 20-10 mtrs.?
"Cecil Moore" <w5dxp@hotmail.com> wrote in message
news:41d45d9b$1_2@127.0.0.1...
> Russ J. wrote:
>> Has anyone used these mobile antennas in the dipole mode? How about a
>> design for a multiband array on a small rotor?
>
> Hamstick dipoles work pretty well for 20m-10m. Not well for 40m
> and terrible for 75m (unless the application is a special one
> like the portable NVIS application in the latest QST).
> --
> 73, Cecil http://www.qsl.net/w5dxp
>
>
> -----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet
> News==----
> http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000
> Newsgroups
> ---= East/West-Coast Server Farms - Total Privacy via Encryption =---

# 4401. Re: What's the deal? (was: Re: AM radio reception inside passenger ...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-31 10:49:41 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <33kr5fF405qkgU1@individual.net>
Source record: 84499

We have to spend so much time during our own time
in education learning the achievements of past heroes, that
perhaps when our own time comes, we are intellectually
exhausted?

Also, "Necessity being the mother of invention" does not feature
when you can buy large quantities of hi-tech sophistication at
bargain-basement prices.

The spirit of enquiry dies.

We can do our bit in the world of Ham Radio by encouraging
our fellows to dabble in the innards of radios (rather than
by visiting the local emporium in order to buy a rice box
and then returning to the emporium when the "snap crackle
and pop" has gone out of it)

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:cr1i54$c0k$1@sparta.btinternet.com...
> I sometimes think that the relatively few engineers between 1790 and 1890
> performed greater engineering feats than the many who followed them into
the
> present age of electronic and genetic engineering. They devoted the whole
of
> their lives to their work.

## 4402. Re: Antennas vs Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-31 10:51:24 UTC
From: "Airy R. Bean" <me@privacy.net>
Message-ID: <33kr5fF405qkgU2@individual.net>
Source record: 84500

Two, or more, of them.

"SideBand" <AINO8SPAMW@cac.net> wrote in message
news:5o5Bd.4289$Mw3.3167@newssvr31.news.prodigy.com...
> So what's the plural of Hippopotamus?

## 4403. PL-259 vs BNC vs. RCA?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-31 12:03:20 UTC
From: Ken <cprstn54zz@att.net>
Message-ID: <0rfat0piqqm55ji9ro7j8dm03p72tef3cc@4ax.com>
Source record: 84498

I need to make some field antenna cables and connectors using RG-174/U cable. If for for reasons of convenience and cost I use metal RCA connectors, with there be a material difference in insertion loss?

Ken KC2JDY

Ken
(to reply via email
remove "zz" from address)

# 4404. Re: PL-259 vs BNC vs. RCA?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-31 12:21:17 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <10tah1vl9b6ue40@corp.supernews.com>
Source record: 84501

Ken wrote:
> I need to make some field antenna cables and connectors using RG-174/U
> cable. If for for reasons of convenience and cost I use metal RCA
> connectors, with there be a material difference in insertion loss?
>
> Ken KC2JDY

No, unless they're outside and can get corroded.

Roy Lewallen, W7EL

# 4405. Re: PL-259 vs BNC vs. RCA?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-31 12:54:26 UTC
From: Dave <noone@nowhere.com>
Message-ID: <LdOdnbZDpaSQ0UjcRVn-gg@crocker.com>
Source record: 84502

"Ken" <cprstn54zz@att.net> wrote in message
news:0rfat0piqqm55ji9ro7j8dm03p72tef3cc@4ax.com...
> I need to make some field antenna cables and connectors using RG-174/U
> cable. If for for reasons of convenience and cost I use metal RCA
> connectors, with there be a material difference in insertion loss?
>

there will probably be some impedance mismatch but in most cases the extra loss will probably be minimal. worse than that are the mechanical and weather proofing problems. they are much worse on rca than either bnc or uhf connectors. i would also worry about high power rf through them. if they are only for short term use and in a weatherproof enclosure and being used for low power or just rx then there shouldn't be a problem.

# 4406. Re: PL-259 vs BNC vs. RCA?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-31 13:30:29 UTC
From: Ralph Mowery <rmowery28146@earthlink.net>
Message-ID: <VvcBd.8154$qf5.889@newsread3.news.atl.earthlink.net>
Source record: 84503

> news:0rfat0piqqm55ji9ro7j8dm03p72tef3cc@4ax.com...
> > I need to make some field antenna cables and connectors using RG-174/U
> > cable. If for for reasons of convenience and cost I use metal RCA
> > connectors, with there be a material difference in insertion loss?
> >
>
> there will probably be some impedance mismatch but in most cases the extra
> loss will probably be minimal. worse than that are the mechanical and
> weather proofing problems. they are much worse on rca than either bnc or
> uhf connectors. i would also worry about high power rf through them. if
> they are only for short term use and in a weatherproof enclosure and being
> used for low power or just rx then there shouldn't be a problem.
>

Using 174 coax you do not have to worry about the power ratings of the connectors. Some of the GE rigs used the RCA connectors at levels of 100 watts . The older Heathkit low band rigs used them on their 100 watt rigs.

# 4407. Re: PL-259 vs BNC vs. RCA?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-31 13:37:05 UTC
From: Dale Parfitt <par@parelectronics.com>
Message-ID: <5CcBd.6921$Y57.908@trnddc08>
Source record: 84504

"Dave" <noone@nowhere.com> wrote in message
news:LdOdnbZDpaSQ0UjcRVn-gg@crocker.com...
>
> "Ken" <cprstn54zz@att.net> wrote in message
> news:0rfat0piqqm55ji9ro7j8dm03p72tef3cc@4ax.com...
> > I need to make some field antenna cables and connectors using RG-174/U
> > cable. If for for reasons of convenience and cost I use metal RCA
> > connectors, with there be a material difference in insertion loss?
> >
>
> there will probably be some impedance mismatch but in most cases the extra
> loss will probably be minimal.

Mismatch between what and what? Neither the UHF or RCA or constant Z
connectors to begin with. The antenna is likely not 50 Ohms, at least across
any bandwidth, the rig is probably not 50 Ohms.

Dale W4OP

# 4408. Re: balun polarity?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-31 13:47:16 UTC
From: Jim - NN7K <nn7kexk7zfg@NOSPAMsbcglobal.net>
Message-ID: <ELcBd.4899$5R.3872@newssvr21.news.prodigy.com>
Source record: 84505

Actually, for MOST applications, the polarity will make no difference.
The ONLY eception would be if you were stacking 2, or more antennas
(like , say 2 tribanders in phase, which in itself would be an awesome
sight!). Just hook it up and work the world!
Jim NN7K

Bill Turner wrote:
> On Fri, 31 Dec 2004 01:34:01 GMT, ml <m@di.net> wrote:
>
>
>>i just got a vangordon 1 1 balun w/ear loops and pl259
>>
>>
>>how can idetermine which 'ear' is + and or - ? my ohmeater shows same
>>for both so obv that not a good test
>
> ____________________________________________________________
>
> Hold it with the label side facing you and point it toward the full
> moon. The "ear" on the left is + and the other is -. Or is it the
> other way? I forget. Actually, it's AC so there is no polarity.
>

# 4409. Re: Antennas vs Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-31 14:22:29 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <vgdBd.6123$yW5.6027@fed1read02>
Source record: 84506

"SideBand" <AINO8SPAMW@cac.net> wrote in message
news:5o5Bd.4289$Mw3.3167@newssvr31.news.prodigy.com...
> Jim wrote:
>> From Kraus' 'Antennas', first edition, footnote on page 1:
>>
>> In its zoological sense, and antenna is the feeler, or organ of touch, of
>> an insect. According to usage in the United States the plural of "insect
>> antenna" is "antennae," but the plural of "radio antenna" is "antennas".
>> However, the usage in England makes no distinction, the plural of both
>> "insect" antenna" and "radio antenna" being "antennae."
>>
>>
>> **********
>>
>> So for those not native to the USA or England, it depends on where your
>> English teaher came from, I guess.
>>
>>
>> Jim
>> N8EE
> So what's the plural of Hippopotamus?
>

RUN!

Ed
wb6wsn

# 4410. Re: What's the deal? (was: Re: AM radio reception inside passenger ...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-31 14:43:34 UTC
From: Ed Price <edprice@cox.net>
Message-ID: <gAdBd.6143$yW5.2@fed1read02>
Source record: 84507

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:cr1i54$c0k$1@sparta.btinternet.com...
>

SNIP

> I sometimes think that the relatively few engineers between 1790 and 1890
> performed greater engineering feats than the many who followed them into
> the
> present age of electronic and genetic engineering. They devoted the whole
> of
> their lives to their work.
>
> As for us poor souls, the best we can manage is haggling about imaginary
> SWR
> and conjugate matches which were all sorted out 120 years back. But it's
> all
> good fun.
>
> Cheers, Reg.
>
>

That was back in the days when fantastic claims were settled with a working model. If you wanted to argue about the efficiency of a venturi, or the strength of a gear tooth profile, you built it and then actually used it. If your drill bit stayed sharp longer, or you pumped more water with less coal, you won your argument.

We spend a lot of time now arguing about how well the computer model replicates reality, and whether the math has enough variables accounted for. Working models seem so old fashioned.

Ed
wb6wsn

# 4411. Re: HAMSTIK DIPOLE

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-31 15:19:52 UTC
From: k9sqg@aol.com
Message-ID: <20041231101952.06541.00002002@mb-m24.aol.com>
Source record: 84508

Bandwidth is very, very limited...

# 4412. Re: PL-259 vs BNC vs. RCA?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-31 15:29:42 UTC
From: Allodoxaphobia <bit-bucket@config.com>
Message-ID: <slrnctas36.ald.bit-bucket@shell.config.com>
Source record: 84509

On Fri, 31 Dec 2004 07:03:20 -0500, Ken wrote:
> I need to make some field antenna cables and connectors using RG-174/U
> cable. If for for reasons of convenience and cost I use metal RCA
> connectors, with there be a material difference in insertion loss?
>
> Ken KC2JDY

No problem at all: At 174 kcs. you'll never notice the difference.

Jonesy
--
| Marvin L Jones | jonz | W3DHJ | linux
| Gunnison, Colorado | @ | Jonesy | OS/2 __
| 7,703' -- 2,345m | config.com | DM68mn SK

## 4413. Antenna building question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-31 15:34:09 UTC
From: stryped@hotmail.com
Message-ID: <1104507249.963139.320130@z14g2000cwz.googlegroups.com>
Source record: 84510

I am new to all of this but when building a j pole, if the plan calls for 1/2 inch and I go with a loarger diameter, say one inch, would the spacing between the elements still be the same?

# 4414. Re: PL-259 vs BNC vs. RCA?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-31 15:37:04 UTC
From: richardharrison@webtv.net
Message-ID: <16310-41D57220-820@storefull-3258.bay.webtv.net>
Source record: 84511

Ken, KC2JDY wrote:
"---RCA connectors, will there be a material difference in insertion loss?"

The RCA pin size is large enough for low resistance contact, and insulation quality can be good enough for low leakage. RCA connectors were routinely used in Motorola 2-way radios to make connection to its internal receiver 455 KHz intermediate frequency filter. This says nothing about possible loss but does indicate suitabikity for some RF applications.

Outside world RF connection to Mottorola 2-way radios was usually via the familiar "UHF" (SO-239). These stay connected when yanked and are simple and easy to connect to the coax. A bonus is that the center-conductor pin socked is designed to accept a banana plug.

All common coax connectors are usually too short to represent much of an impedance bunp.

Best regards, Richard Harrison, KB5WZI

# 4415. Re: Antenna building question

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-31 16:09:29 UTC
From: richardharrison@webtv.net
Message-ID: <14548-41D579B9-849@storefull-3254.bay.webtv.net>
Source record: 84512

Stryped wrote:
"If the plan calls for 1/2 inch and I go with a larger diameter, say one inch, would the spacing between the elements still be the same?"

Maybe not, if impedance of the line segment is important. See a chart like Fig 19 on page 24-15 of the 19th edition of the "ARRL Antenna Book". This shows "Characteristic impedance as a function of conductor spacing and size for parallel conductor lines."

Best regards, Richard Harrison, KB5WZI

# 4416. Re: Decoupling coax transmission line

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-31 16:27:33 UTC
From: pw342@hotmail.com
Message-ID: <1104510453.654890.245060@z14g2000cwz.googlegroups.com>
Source record: 84513

Charlie, an antenna will need to have a choke only in the following condition:
Check the Swr with feedline attached. Add another 1/4 wavelength of transmission line with impdedance equal to the output of your transmitter. If the Swr increases, then a choke is required. If Swr goes down slightly, that only means that there is loss in the added section of feedline.
The reason why this check works is that a choke is needed if current exists on the outside of the coax. In that case, the current acts like another wire attached to the antenna. This added wire changes the effective length of the antenna causing a change in resonance with added feedline.

# 4417. Re: Antenna impedance analyzer comparison

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-31 16:35:47 UTC
From: pw342@hotmail.com
Message-ID: <1104510947.057172.283060@z14g2000cwz.googlegroups.com>
Source record: 84514

I have the Autek RF1 and enjoy it a lot. My only comment is that
battery consumption is probably more of an issue than people realize.
I feel sorry for those with an analyser that uses a lot of batteries.
My Autek is small and power consumption is low, but even then,
replacing the single 9v battery is a pain because it always fails when
I'm somewhere up in the air!.

# 4418. Re: What's the deal? (was: Re: AM radio reception inside passenger...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-31 17:19:39 UTC
From: richardharrison@webtv.net
Message-ID: <16697-41D58A2B-88@storefull-3253.bay.webtv.net>
Source record: 84515

Jack Painter wrote:
"Modeling examples listed below appear to be incorrect for lightning, similar to how modeling for ocean waves cannot be done in a bathtub and even a swimming pool does not closely replicate the action of waves in a large body of water."

OK. Here are full-scale examples. My company had radio towers over much of the earth. Standard practice was protection of the beacon atop the tower with a Copperweld ground rod alongside the beacon with its sharp tip pointed at the sky. No protected beacon was ever damaged by lightning.

Our company headquarters skyscraper was protected by short air terminals ringing the perophery of the builsing at short regular intervals. No lightning damage yet in half a century.

You may say it is squivalent to the fellow who walks into a bar with a strange contrivance suspended around his neck. Asked what the gadgst does, the new arrival says: "it`s an elephant whistle". Reply is: "There`s no elephants around here." New arrival says: "See. It works, doesn`t it?"

I can assure that there have been plenty of lightning strikes safely bypassed to ground around the protected people and equipment, just as Ben Franklin and others have predicted.

Best regards, Richard Harrison, KB5WZI

# 4419. Re: HAMSTIK DIPOLE

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-31 17:43:52 UTC
From: Bill Cherepy <wb4wtn@mindspring.com>
Message-ID: <tn3bt09bdg8tctr5kdc4bgq702pm9sl8h3@4ax.com>
Source record: 84516

On Thu, 30 Dec 2004 16:15:01 GMT, "Russ J." <amservice@sbcglobal.net>
wrote:

>Has anyone used these mobile antennas in the dipole mode? How about a
>design for a multiband array on a small rotor?
>

Last fall we used a pair of 40M Hamsticks up about 30 ft for a demo at
a local school and we made contacts from our location near Atlanta, GA
to stations as far north as Cape Cod and as far south as Florida. We
operated strictly 40 and we ran 100 watts.

73, and Happy New Year,

Bill Cherepy
Grayson, GA

# 4420. Re: PL-259 vs BNC vs. RCA?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-31 18:43:30 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <10tb7f4r96jdld0@corp.supernews.com>
Source record: 84517

Richard Harrison wrote:

> Ken, KC2JDY wrote:
> "---RCA connectors, will there be a material difference in insertion
> loss?"
>
> The RCA pin size is large enough for low resistance contact, and
> insulation quality can be good enough for low leakage. RCA connectors
> were routinely used in Motorola 2-way radios to make connection to its
> internal receiver 455 KHz intermediate frequency filter. This says
> nothing about possible loss but does indicate suitabikity for some RF
> applications.
>
> Outside world RF connection to Mottorola 2-way radios was usually via
> the familiar "UHF" (SO-239). These stay connected when yanked and are
> simple and easy to connect to the coax. A bonus is that the
> center-conductor pin socked is designed to accept a banana plug.
>
> All common coax connectors are usually too short to represent much of an
> impedance bunp.
>
> Best regards, Richard Harrison, KB5WZI
>

The RCA connector has been demonstrated to show a flat response from DC to Light. The only problem with this connector is that it is hard solder coax to the blasted thing.

Dave WD9BDZ

# 4421. Re: Old Wives' Tales & Ground Rods

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-31 19:03:53 UTC
From: CW <cmagers@earthlink.net>
Message-ID: <TL-dnYzLY8erP0jcRVn-uA@comcast.com>
Source record: 84518

"Jim Higgins" <me7@privacy.net> wrote in message
news:sh49t0dguhgrgvoolf7t34j0pgfid0j2n6@4ax.com...
>>
> Odd that the 500K or so of his own citizens that Saddam tortured
> and killed during his regime are never mentioned when it comes
> time to bash the USA for putting an end to it.
>

Lots of assholes in the world. Which one should we attack next? Ah, the
modern Crusades.

# 4422. Re: Antenna impedance analyzer comparison

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-31 19:04:11 UTC
From: chuck <chuck@nospam.net>
Message-ID: <41d5a2c8$1_4@newsfeed.slurp.net>
Source record: 84520

I've used an Autek VA1 for a few years. Carried it on a
sailboat to the Bahamas (in a plastic sack). No problems
with it at all. I unplug the battery when it is not in use.
The VA1 is a very useful piece of equipment.

My opinion of Autek construction and documentation, however,
is that it makes MFJ look good.

73,

Chuck

# 4423. Re: HAMSTIK DIPOLE

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-31 19:04:17 UTC
From: W5DXP <Cecil.A.Moore@ieee.org>
Message-ID: <1104519857.035994.7010@z14g2000cwz.googlegroups.com>
Source record: 84519

Radio Man wrote:
> Can one use open ladderline with a 20 mtr hamstick & the appropriate
> tuner & work 20-10 mtrs.?

The problem with using hamsticks on higher frequencies is the loss in the coil. The 20m hamstick has too much inductance for any higher frequency and thus has more loss. Losses are probably worst case at the self-resonant frequency but I don't know what that frequency is for a 20m hamstick and I don't have a 20m hamstick to test. Perhaps someone with a 20m hamstick and an MFJ-259 will run that test and report the results. In general, though, it is not a good idea to use hamsticks on higher frequencies than their resonant frequencies.

However, using parallel 18 MHz hamsticks with ladder-line to cover 20m, 17m, and 15m is probably not a terrible idea.
--
73, Cecil http://www.qsl.net/w5dxp

# 4424. Re: HAMSTIK DIPOLE

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-31 19:07:43 UTC
From: chuck <chuck@nospam.net>
Message-ID: <41d5a39b_4@newsfeed.slurp.net>
Source record: 84521

Are the radiation resistances for various Hamstiks published
anywhere?

TIA.

Chuck

# 4425. Re: best low dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-31 19:15:41 UTC
From: Simon Smith <s.Smith@btinternet.com>
Message-ID: <cr48gs$30$1@hercules.btinternet.com>
Source record: 84422

Ha ha ha ha ha ha !!!!!! I havnt stopped laughing for an hour .......
Simon
"Bill Turner" <noway@nohow.com> wrote in message
news:3ad9t0lagtv9fs0vgn8jnd59abk79ga8bf@4ax.com...
> On Fri, 31 Dec 2004 01:29:04 GMT, ml <m@di.net> wrote:
>
>>i am sure i won't be able to put it up much higher than i can reach
>>easily lets say ten ft
> ----------
>
> If you can reach ten feet, there are a number of basketball clubs which
> will be glad to pay you millions of dollars a year, and then you can
> hire someone with a stepladder to put it up for you.
>
> See, there's always a way! :-)
>
> --
> Bill, W6WRT
>

## 4426. Google Groups

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-31 19:16:31 UTC
From: W5DXP <Cecil.A.Moore@ieee.org>
Message-ID: <1104520591.946550.65580@z14g2000cwz.googlegroups.com>
Source record: 84423

I presently cannot access my subscribed usenet server so I logged on to
Google Groups. What a surprise. They have updated their usenet function
to reduce the posting delay from hours to minutes, i.e. make newsgroup
access fully functional.
--
73, Cecil http://www.qsl.net/w5dxp

# 4427. Re: HAMSTIK DIPOLE

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-31 19:17:43 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <489bt0ln7ctr7f1i98jtgfu6hutlhplvv4@4ax.com>
Source record: 84424

On Fri, 31 Dec 2004 10:34:22 GMT, "Radio Man" <puns@verizon.net>
wrote:

>Can one use open ladderline with a 20 mtr hamstick & the appropriate
>tuner & work 20-10 mtrs.?

Lakeview sells a dipole mount for use with its Hamsticks. It would
seem you could put the thing up, attach your coax feedline, and then
just change out Hamsticks for the appropos bands.

Bob
k5qwg

>"Cecil Moore" <w5dxp@hotmail.com> wrote in message
>news:41d45d9b$1_2@127.0.0.1...
>> Russ J. wrote:
>>> Has anyone used these mobile antennas in the dipole mode? How about a
>>> design for a multiband array on a small rotor?
>>
>> Hamstick dipoles work pretty well for 20m-10m. Not well for 40m
>> and terrible for 75m (unless the application is a special one
>> like the portable NVIS application in the latest QST).
>> --
>> 73, Cecil http://www.qsl.net/w5dxp
>>
>>
>> -----== Posted via Newsfeeds.Com - Unlimited-Uncensored-Secure Usenet
>> News==----
>> http://www.newsfeeds.com The #1 Newsgroup Service in the World! >100,000
>> Newsgroups
>> ---= East/West-Coast Server Farms - Total Privacy via Encryption =---
>

# 4428. Re: What's the deal? (was: Re: AM radio reception insidepassenger...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-31 19:41:24 UTC
From: Jack Painter <223bthp@cox.net>
Message-ID: <FXhBd.2626$622.2196@lakeread02>
Source record: 84425

"Richard Harrison" <richardharrison@webtv.net> wrote

> Jack Painter wrote:
> "Modeling examples listed below appear to be incorrect for lightning,
> similar to how modeling for ocean waves cannot be done in a bathtub and
> even a swimming pool does not closely replicate the action of waves in a
> large body of water."
>
> OK. Here are full-scale examples. My company had radio towers over much
> of the earth. Standard practice was protection of the beacon atop the
> tower with a Copperweld ground rod alongside the beacon with its sharp
> tip pointed at the sky. No protected beacon was ever damaged by
> lightning.
>
> Our company headquarters skyscraper was protected by short air terminals
> ringing the perophery of the builsing at short regular intervals. No
> lightning damage yet in half a century.
>
> You may say it is squivalent to the fellow who walks into a bar with a
> strange contrivance suspended around his neck. Asked what the gadgst
> does, the new arrival says: "it`s an elephant whistle". Reply is:
> "There`s no elephants around here." New arrival says: "See. It works,
> doesn`t it?"
>
> I can assure that there have been plenty of lightning strikes safely
> bypassed to ground around the protected people and equipment, just as
> Ben Franklin and others have predicted.
>
> Best regards, Richard Harrison, KB5WZI

Hi Richard, because it is completely unlike you to so widely miss the point, I question whether I understood your responses correctly. The standard Franklin rods (with pointed tips) have been completely validated in their application of safely terminating lightning strikes. Nothing in the new study repudiates that in any way. It simply finds that a lightning rod of similar length, thickness and composition but with a rounded or blunt-tip, has attached lightning that was coming to it's twenty-odd foot area everytime and missed the nearby Franklin rods everytime. The study clearly restates what engineers all over the world already know, that Franklin rods work just fine. But it ADDS that the blunt-tip rods work better, end of study.

Because lightning is impossible to predict, and often it strikes areas of a grounding system and building below the lightning rods (evidence is the Empire State Bldg, which has video showing dozens of strikes bypassing the

Franklin rods), then if an improved rod-tip design is validated, then it is validated, simple as that. Your experience describing a pointed tip protecting a radio tower sounds rather simplistic as examples, don't you agree? Nothing could be easier than attaching lightning to the top of a tower for Pete's sake. Where lightning rod placement and design becomes critical, is in areas such as multi-level/shaped building corners, appurtenances, high explosive and flammable liquid storage, etc. Here, the best available science is used to describe how many feet apart, at what elevations, etc the air terminal system must be in order to achieve the desired level of confidence that no lightning attachment will cause damage to structures, materials or personnel.

Happy New Year and best wishes,

Jack Painter
Virginia Beach, Virginia

# 4429. Re: Google Groups

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-31 19:46:59 UTC
From: Jack Painter <223bthp@cox.net>
Message-ID: <U0iBd.2627$622.1653@lakeread02>
Source record: 84426

Thanks for that info Cecil. I find Cox Communications often loses newsgroup connections and is very slow at other times. I'll look into Google as an option.

73,
Jack

"W5DXP" <Cecil.A.Moore@ieee.org> wrote in message
news:1104520591.946550.65580@z14g2000cwz.googlegroups.com...
> I presently cannot access my subscribed usenet server so I logged on to
> Google Groups. What a surprise. They have updated their usenet function
> to reduce the posting delay from hours to minutes, i.e. make newsgroup
> access fully functional.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>

# 4430. Re: What's the deal? (was: Re: AM radio reception inside passenger ...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-31 19:57:59 UTC
From: CW <cmagers@earthlink.net>
Message-ID: <QdqdnSURz-R5M0jcRVn-og@comcast.com>
Source record: 84427

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:cqvf80$pf8$1@sparta.btinternet.com...
> Wasn't Franklin that lunatic who used to walk around flying kites in the
> middle of thunderstorms?
I've done that, repeated his results and am still hear. Not recommended
though.

# 4431. Re: What's the deal? (was: Re: AM radio reception inside passenger ...

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-31 20:29:14 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cr4cqq$4vu$1@hercules.btinternet.com>
Source record: 84428

Ed said -
> That was back in the days when fantastic claims were settled with a
working
> model. If you wanted to argue about the efficiency of a venturi, or the
> strength of a gear tooth profile, you built it and then actually used it.
If
> your drill bit stayed sharp longer, or you pumped more water with less
coal,
> you won your argument.
>
> We spend a lot of time now arguing about how well the computer model
> replicates reality, and whether the math has enough variables accounted
for.
> Working models seem so old fashioned.
>
=====================================

It is a fatal mistake to treat a modelling program, even if you think it has no bugs (errors), as a bible which always tells the gospel truth. ALL programs have limitations.

Limitations result from the computer itself, those deliberately introduced by the programmer, those accidentally introduced by the programmer because he didn't understand how the thing being modelled really works, those introduced by the user because he doesn't understand how the program is supposed to work or what the programmer was thinking about when he wrote it.

The result is UNRELIABILITY.

Ideally, the originator of the thing being modelled and the programmer should be one and the same person. Committies produce drumadaries with 3 or more humps. Or elephants with trunks at both ends.

The definition of Reliability is Quality versus Time, and therefore confidence (or lack of it) can be gained only with both use and time.

Given time, and use, with large programs, such statistics as mean-time-between-failures can be produced. But when the next error might arise and its magnitude is anybody's guess. One is always caught unawares. More insidiously, one may not be aware that an error HAS occurred. Or most insidiously, one may imagine an error has occurred when it hasn't.

Problems will surely persist - if a failure is suspected, is it the program which has failed, is it the computer, is it the modelling, or is it the actual thing being modelled (it may not exist) which is defective?

The proof of the pudding lies in the eating. Get off your ass, wrench yourself away from the keyboard, do what you should have done in the first place, erect the thing and use an instrument which purports to measure SWR, hope for the best, don't swear by it, and take care to record the instrument manufacturer's name and its serial number. ;o)

To summarise, the reliabilty of a modelling program is always worse than the quality of the blamed programmer. Initially, don't believe anything it produces.

And whatever you do, don't become depressed. Even if the program doesn't work the radio will. Most happy-band radio amateurs don't realise how fortunate they are - almost anything works thank goodness.

At present I'm on Spanish Red, Berberna, Reserva 2000. I know it's Spanish because, unusually, the entire blurb on the bottle is in that language. But I feel somewhat guilty because at the back of my mind there's the continuing unbelievable horror of the enormous disaster in the countries surrounding the Eastern Indian Ocean. The worst effects may still be to come.
---
Reg, G4FGQ

# 4432. Re: PL-259 vs BNC vs. RCA?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-31 20:50:09 UTC
From: Dale Parfitt <par@parelectronics.com>
Message-ID: <5YiBd.11435$hc7.1718@trnddc06>
Source record: 84429

> The RCA connector has been demonstrated to show a flat response from DC
> to Light. The only problem with this connector is that it is hard solder
> coax to the blasted thing.
>
> Dave WD9BDZ

Can you direct me to the data that verifies this?

Dale W4OP

# 4433. Re: Antenna impedance analyzer comparison

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-31 20:52:10 UTC
From: Dale Parfitt <par@parelectronics.com>
Message-ID: <_ZiBd.11439$hc7.7032@trnddc06>
Source record: 84430

"Kristinn Andersen, TF3KX" <tf3kx@simnet.is> wrote in message
news:cc4f4620.0412301946.274e77dc@posting.google.com...
> Hi - I am looking for an impedance analyzer. Primarily for antenna
> measurements (only 1,8-30 MHz) and secondarily for misc. lab
> measurements (L,C,Q measurements, signal generation, etc.). The
> possibilities I have been looking at are (in no particular order,
> prices approximate):
>
> a) MFJ-259B ($300)
> b) MFJ-269 ($220)
> c) AEA VIA ($600)
> d) Autek VA1 ($200)
> d) Micro908 kit from AmQRP ($210)
> e) N2PK Vector Network Analyzer project ($150)
>
>Comparing the N2PK VNA to the others is not quite fair as it is in a league
by itself- like comparing a go cart to a BMW.

Dale W4OP

# 4434. GSM and PCS Dual Band PCB Antenna Design?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-31 21:04:27 UTC
From: radio913@aol.com
Message-ID: <1104527067.091350.225470@z14g2000cwz.googlegroups.com>
Source record: 84431

Hi,

I was wondering if anyone out there has
designed a GSM and PCS (880MHz and
1910MHz) dual-band printed circuit board
embedded antenna? I expect the design
would include a parallel LC network, so
that the electrical length changes depending
on the injected frequency.

If you have done so, did you use Microwave office
or Momentum, or any other computer simulator?
Thanks in advance!

Slick

# 4435. Re: dc grounding on 25ft trap vertical ant 10m-80m

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-31 21:12:02 UTC
From: w9gb <onw9mapsgb@no.arrl.spam.net>
Message-ID: <bNidnU7XXMYsXUjcRVn-1Q@comcast.com>
Source record: 84432

"Charlie" <charlie@aol.com> wrote in message
news:10t4i946a8msva7@news.supernews.com...
> Just recently installed a Hustler 4-BTV ground mounted vertical. I added
> 20 tuned radials on 10,15,and 20M each for a total of 60 tuned radials. I
> also added 12 tuned radials on 40M. I was lazy and bought them from DX
> Engineering where I also got their stainless steel ground radial plate and
> the nifty tilt-over mount for the 4-BTV (and other verts as well). I did
> a little tweaking on the 4-BTV today and the tilt over was a breeze to
> use..what a treat to be able to complete an antenna tweak in about 2
> minutes total time. Rig is ICOM 746 PRO and I am working all the DX I can
> hear.
>
> www.dxengineering.com
>
> Photos and stuff on my site listed below.... 73 / DX
>
> Charlie
> Ham Radio - AD5TH

Very nice install and photos ... that is the way this antenna should be
installed !

w9gb

# 4436. Re: dc grounding on 25ft trap vertical ant 10m-80m

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-31 21:18:38 UTC
From: Charlie <charlie@earthlink.com>
Message-ID: <10tbghmpiehub86@news.supernews.com>
Source record: 84433

Thanks for those nice words...just today I added the 75M Hustler "Super Resonator" and got it tuned to the 75M dx window. Can't wait till this evening to do some 75M dx work. I do not have it guyed but do have the tilt over bracket so if it's windy I can tilt it over all the way.

--

Charlie
Ham Radio - AD5TH
www.ad5th.com
Live Blues Music
www.492acousticblues.com

"w9gb" <onw9mapsgb@no.arrl.spam.net> wrote in message
news:bNidnU7XXMYsXUjcRVn-1Q@comcast.com...
> "Charlie" <charlie@aol.com> wrote in message
> news:10t4i946a8msva7@news.supernews.com...
>> Just recently installed a Hustler 4-BTV ground mounted vertical. I added
>> 20 tuned radials on 10,15,and 20M each for a total of 60 tuned radials. I
>> also added 12 tuned radials on 40M. I was lazy and bought them from DX
>> Engineering where I also got their stainless steel ground radial plate
>> and the nifty tilt-over mount for the 4-BTV (and other verts as well). I
>> did a little tweaking on the 4-BTV today and the tilt over was a breeze
>> to use..what a treat to be able to complete an antenna tweak in about 2
>> minutes total time. Rig is ICOM 746 PRO and I am working all the DX I
>> can hear.
>>
>> www.dxengineering.com
>>
>> Photos and stuff on my site listed below.... 73 / DX
>>
>> Charlie
>> Ham Radio - AD5TH
>
> Very nice install and photos ... that is the way this antenna should be
> installed !
>
> w9gb
>

# 4437. Re: Antenna impedance analyzer comparison

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-31 21:22:44 UTC
From: Bob Nielsen <nielsen@removethis.oz.net>
Message-ID: <slrnctbgp3.576.nielsen@n7xy.net>
Source record: 84434

On Fri, 31 Dec 2004 20:52:10 GMT, Dale Parfitt wrote:
>
> "Kristinn Andersen, TF3KX" <tf3kx@simnet.is> wrote in message
> news:cc4f4620.0412301946.274e77dc@posting.google.com...
>> Hi - I am looking for an impedance analyzer. Primarily for antenna
>> measurements (only 1,8-30 MHz) and secondarily for misc. lab
>> measurements (L,C,Q measurements, signal generation, etc.). The
>> possibilities I have been looking at are (in no particular order,
>> prices approximate):
>>
>> a) MFJ-259B ($300)
>> b) MFJ-269 ($220)
>> c) AEA VIA ($600)
>> d) Autek VA1 ($200)
>> d) Micro908 kit from AmQRP ($210)
>> e) N2PK Vector Network Analyzer project ($150)
>>
>>Comparing the N2PK VNA to the others is not quite fair as it is in a league
> by itself- like comparing a go cart to a BMW.

Maybe not a league of its own--for another VNA (not out yet, but
hopefully soon), see <http://www.tapr.org>.

# 4438. Re: Antenna impedance analyzer comparison

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-31 22:04:08 UTC
From: Dale Parfitt <par@parelectronics.com>
Message-ID: <s1kBd.21926$rL3.12095@trnddc03>
Source record: 84435

"Bob Nielsen" <nielsen@removethis.oz.net> wrote in message
news:slrnctbgp3.576.nielsen@n7xy.net...
> On Fri, 31 Dec 2004 20:52:10 GMT, Dale Parfitt wrote:
> >
> > "Kristinn Andersen, TF3KX" <tf3kx@simnet.is> wrote in message
> > news:cc4f4620.0412301946.274e77dc@posting.google.com...
> >> Hi - I am looking for an impedance analyzer. Primarily for antenna
> >> measurements (only 1,8-30 MHz) and secondarily for misc. lab
> >> measurements (L,C,Q measurements, signal generation, etc.). The
> >> possibilities I have been looking at are (in no particular order,
> >> prices approximate):
> >>
> >> a) MFJ-259B ($300)
> >> b) MFJ-269 ($220)
> >> c) AEA VIA ($600)
> >> d) Autek VA1 ($200)
> >> d) Micro908 kit from AmQRP ($210)
> >> e) N2PK Vector Network Analyzer project ($150)
> >>
> >>Comparing the N2PK VNA to the others is not quite fair as it is in a
league
> > by itself- like comparing a go cart to a BMW.
>
> Maybe not a league of its own--for another VNA (not out yet, but
> hopefully soon), see <http://www.tapr.org>.

I looked at this at Dayton- from memory, I seem to recall the dynamic range was nowhere close to Paul's design and software at that time was rather crude. I'll look again, but for the price, Paul's design is hard to beat-accuracy right up there with the Agilent 40 Gigabuck units.
Dale W4OP

# 4439. Re: PL-259 vs BNC vs. RCA?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-31 22:30:47 UTC
From: RST Engineering <jim@rstengineering.com>
Message-ID: <10tbkos391l9k26@corp.supernews.com>
Source record: 84436

Specify the operating frequency range. Up to 100 MHz, not a problem. At 10 GHz I'd worry about it.

Jim

"Ken" <cprstn54zz@att.net> wrote in message news:0rfat0piqqm55ji9ro7j8dm03p72tef3cc@4ax.com...
>I need to make some field antenna cables and connectors using RG-174/U
> cable. If for for reasons of convenience and cost I use metal RCA
> connectors, with there be a material difference in insertion loss?
>
> Ken KC2JDY
>
> Ken
> (to reply via email
> remove "zz" from address)

# 4440. Re: Bury balanced line?

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-31 23:29:52 UTC
From: Bob P <nospam@nospam.end>
Message-ID: <7bmdnYJ21I1afEjcRVn-oQ@comcast.com>
Source record: 84437

I like the welding idea but sold my arc welder b4 moving to the new house
:-(
I've been playing with an end fed 100' wire antenna and it seems to work
pretty well and is nearly invisible to boot. I've got access to trees maybe
200, 300 feet out. Just need to pick up a wristrocket.
Bob

"'Doc" <w5lz@cwis.net> wrote in message
news:fJAAd.7651$Y8.1656@newssvr17.news.prodigy.com...
> Bob,
> The 'quick'n'dirty' answer is don't waste your time burying
> the ladder line. If you have to bury a feed line make it coax
> (one of the reasons it was invented, to be able to run it close
> to 'stuff', or ground). Still want to try it? Then why not. The
> losses may be acceptible to you (sort of doubt that, but...), and
> it would be an interesting experiment.
> 'Doc
>
> ALTERNATIVE #1
> Take up metal welding 'scupture'. Build a huge ~ugly~ thingy
> in the backyard. Hang dipole over the top of it (call it a lightning
> protection device). 'They' will be so upset over the 'sculpture'
> they'll never even see the dipole. Invest in a good divorce attorney.

# 4441. Re: Google Groups

Newsgroup: rec.radio.amateur.antenna
Date: 2004-12-31 23:40:51 UTC
From: Ms_Squiggles <send_pdreeves_no_spam@bigpond.net.au>
Message-ID: <pan.2004.12.31.23.40.39.832396@bigpond.net.au>
Source record: 84438

On Fri, 31 Dec 2004 11:16:31 -0800, W5DXP wrote:

> I presently cannot access my subscribed usenet server so I logged on to
> Google Groups. What a surprise. They have updated their usenet function to
> reduce the posting delay from hours to minutes, i.e. make newsgroup access
> fully functional.

Fully functional, EXCEPT for making the default reply button not quote the
text of the previous post! If Google is used on a busy group it can get
very difficult to figure out what is actually being replied to. It gets
annoying to have to go and read other posts in the tree just to
figure the thread out.

Apparently there is a way of replying that quotes the previous text, but
this involves clicking on a few buttons to do it.

Pip

# 4442. 30 + J200, 25 - J350 etc Refresher Course ?

Newsgroup: rec.radio.amateur.antenna
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I'm basically a lurker in the newsgroup but I've forgotten what the term as used with an antenna impedance like 30 +J200 or 25 -J150 etc means. I remember studying it about 10 years ago when I took my extra test and I had it in tech school at about the same time from a Jr. College during one 4 credit hour "communications" course that covered everything from TV's to SSB and FM. I believe it's one way of expressing an impedance with some reactance thrown in and I recall converting between polar and rectangular methods of expressing the same term ( I would really need the book for that now ! ) But I don't think I have the books from the school days around anymore. Any one care to give me a short refresher course or post a URL ? I've got a bad case of CRS ( Can't Remeber Stuff ;-) )

Happy New Year !